Appendix A.
Valet Plan

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LAZ PARKING
PARKING SUNSET SERVICE
Family of Companies

March 23, 2011

Tod Ridgeway
Ridgeway Development
2804 Lafayette Avenue
Newport Beach, CA 92663

Re: Mariner's Pointe Parking Operational Plan Version 4

Dear Mr. Ridgeway,

Thank you for allowing Sunset Parking to consult on the parking for the Mariner's Pointe development.

The following is a revised "Daily Operational Plan" for submission to the City of Newport Beach. If there are any questions or requested changes, please contact me at anytime.

If there is anything we can help you with in the approval process, please let us know.

Respectfully,

Kynn Knight
Executive Vice President
Kynn.knight@sunsetparking.com
Cell 760-815-6193
Office 760-753-4004x205

Family of Companies

Daily Operational Plan

Employee Parking

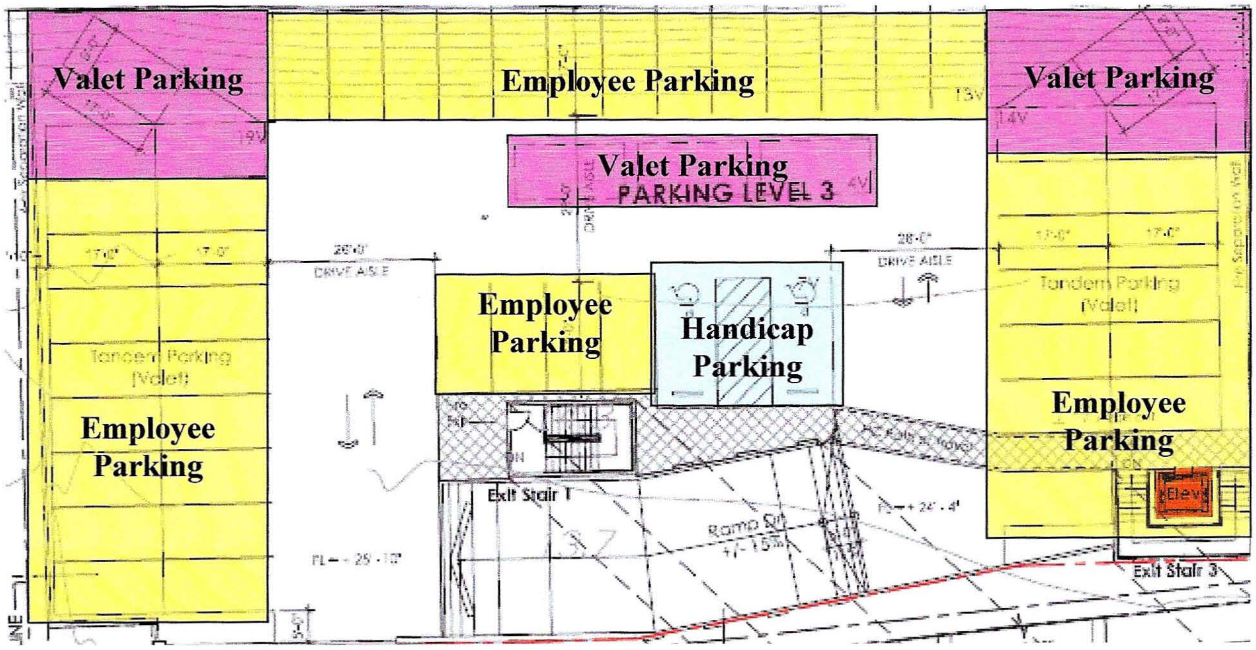
Monday – Friday 6am – 5pm 45 Stalls Level 3

Monday – Friday After 5pm, Saturday and Sunday 45 Stalls Level 3 + 20 Offsite Spaces after 5pm (65 Stalls)

Employees are typically the first to arrive and the last to leave in a restaurant/retail setting. For this reason, we would have the staff of all the businesses in Mariner's Pointe, on the 3rd level of the parking structure with the following operational plan:

1. Stalls would be assigned to all suites.
2. Tandem stalls would be assigned within the same suite (26 total).
3. On Level 3, 3 Aisle spaces would be valet spaces and a valet would be stationed with vehicles until removed from the aisle. There would also be 4 tandem stalls and 2 angled stalls used for valet for a total of 9 valet use spaces on Level 3.
4. 2 Handicap spaces would be located on Level 3. The valet spaces in the lane would be the last used by the valet staff, keeping blockage of the handicap spaces to a minimum. At such times that valet spaces in the lane are used, Valet will post an attendant with any vehicle(s) in the lane and move the vehicle(s) necessary to allow vehicle entering or leaving the handicap space room to safely enter or depart the handicap parking stall.
5. While Level 2 or 3 valet Lane Spaces are in use, any exiting employee vehicles would be driven from Level 3 to Level 1 by a valet attendant and retrieved by the employee on Level 1 by the west garage exit.
6. An additional 20 employee parking stalls would be offered at an offsite lot on nights after 5:00 p.m. and weekends. Before 5pm if additional employee parking was needed, employees would be valet parked.
7. Signs on wall and striping on ground would label stalls as "Employee Parking". Signs would state municipal code to allow towing of vehicles if necessary.

Level 3



Guest Parking

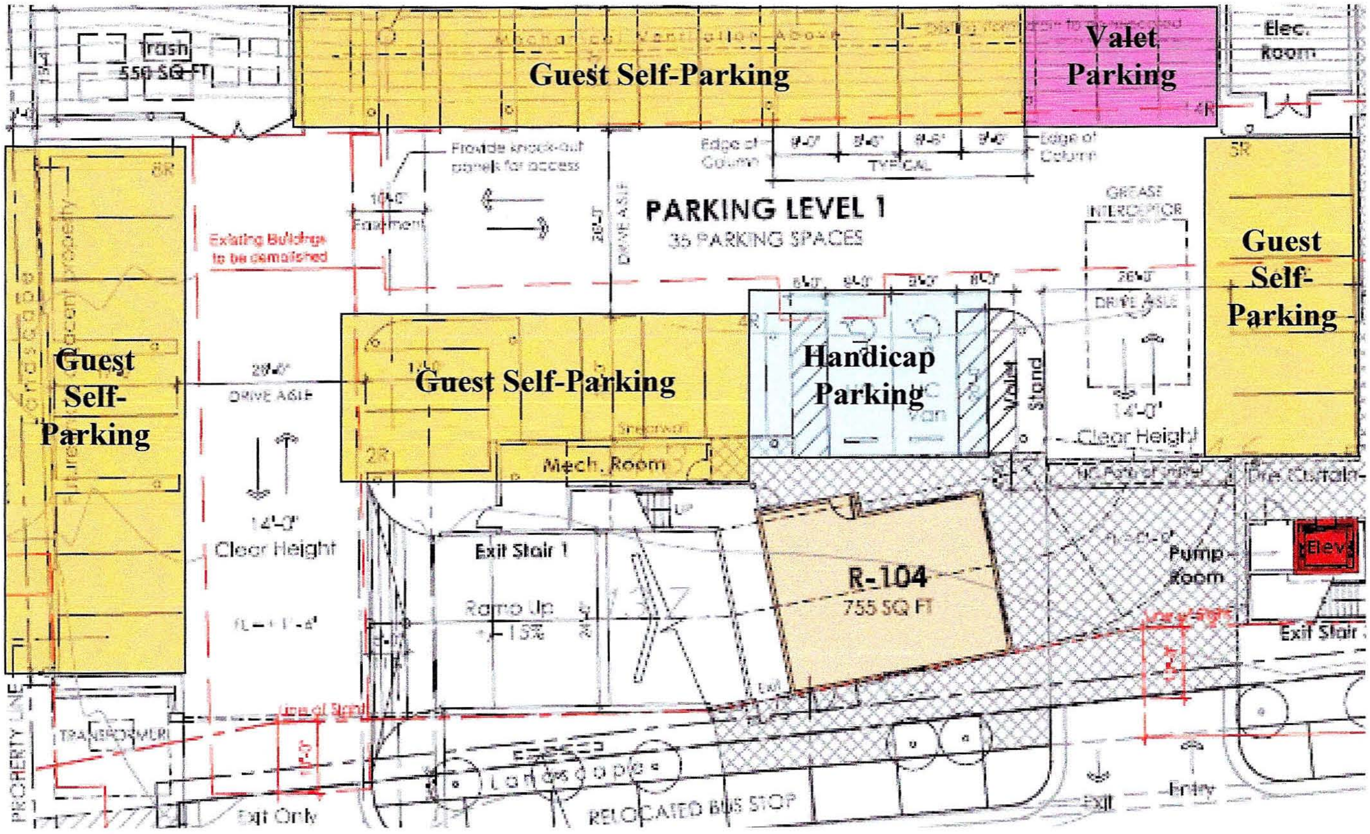
Self-Parking 7am-4pm:

Handicap Parking All Operational Hours

30 Standard and 5 Handicap (2 Handicap Stalls Level 1, 1 Level 2, 2 Level 3) 35 Stalls total.

1. Parking on Level 1 would be dedicated to Guest Self-Parking during weekday daytime hours.
2. There would be three parking stalls in the north east corner of the garage for valet greeting
3. Total stalls available on Level 1 = 30 regular Stalls + 2 Handicap Stalls + 3 Valet Greeting Stalls.
4. At 4pm each day, valet attendant would place a cone or vehicle in each empty stall on the first level to reserve for evening valet.
5. Drive lane would be kept clear until all self-parked vehicles have exited, expected between 5pm and 5:30pm.
6. Each daytime self-parking stall on the first level would be signed for 7am-5pm use and valet after 5pm.

Level 1



Valet Parking

Monday – Friday 10am-5pm: 3 Greeting Stalls Level 1 + 45 Storage Stalls Level 2 + 9 Storage Stalls Level 3 (57 Stalls)

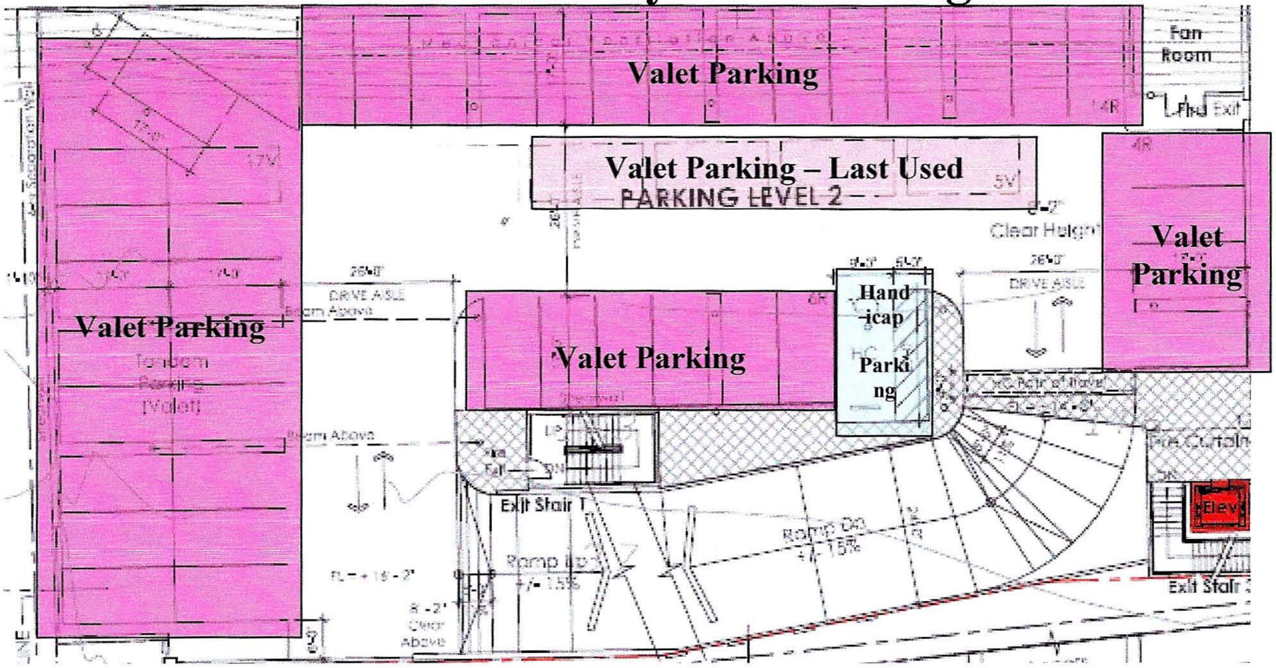
After Guest Self-Parking fills on Level 1, guests would be valeted from Parking Level 1 and valet vehicles stored on parking level 2 & 3. Signs and striping on ground would label stalls “Valet Parking”. Signs would state municipal code to allow towing of vehicles if necessary.

Monday – Friday After 5pm and Weekends: 33 Stalls Level 1 + 45 Storage Stalls Level 2 + 9 Storage Stalls Level 3 (87 Stalls)

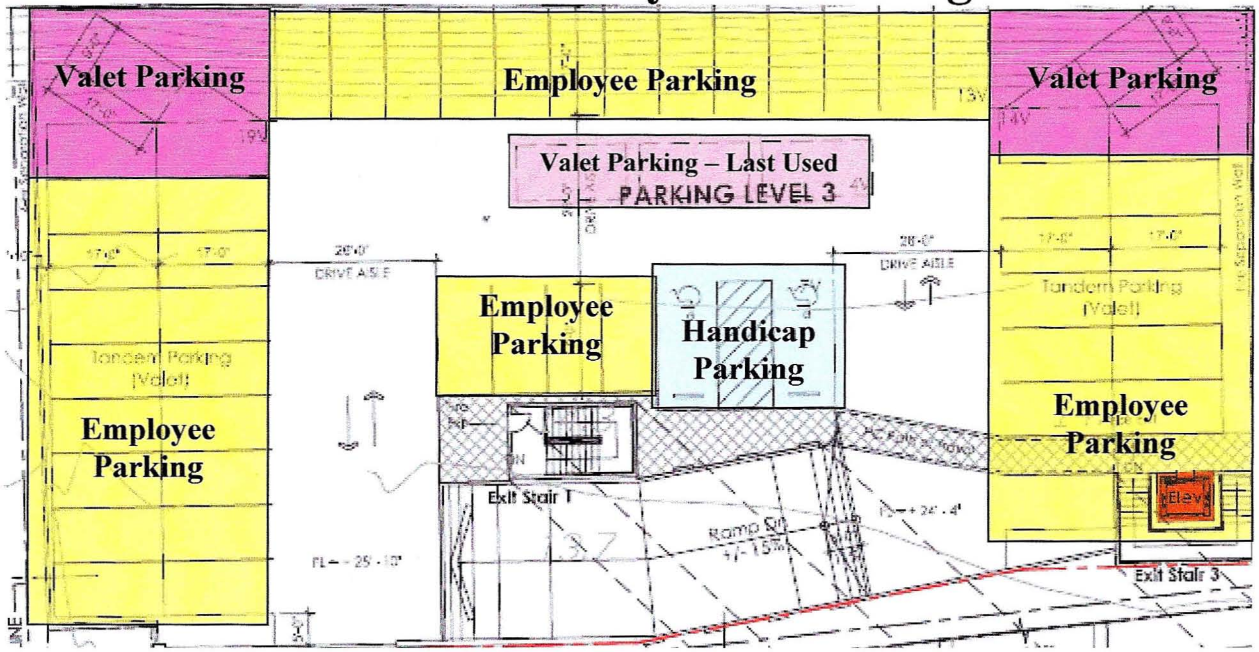
After Guest Self-Parking fills on Level 1, guests would be valeted from Parking Level 1 and valet vehicles stored on parking level 2 & 3. Signs and striping on ground would label stalls “Valet Parking”. Signs would state municipal code to allow towing of vehicles if necessary.

Level 2 & 3 Plan for Lane spaces use: The valet spaces in the lane would be the last used by the valet staff, keeping blockage of the handicap space to a minimum on Level 2 and 3. At such times that valet spaces in the lane are used, Valet will post an attendant with any vehicle(s) in the lane on each level and move the vehicle(s) necessary to allow a vehicle entering or leaving the handicap space room to safely enter or depart the handicap parking stall. While Level 2 valet Lane Spaces are in use, any exiting employee vehicles would be driven from Level 3 to Level 1 by a valet attendant and retrieved by the employee on Level 1 by the west garage exit.

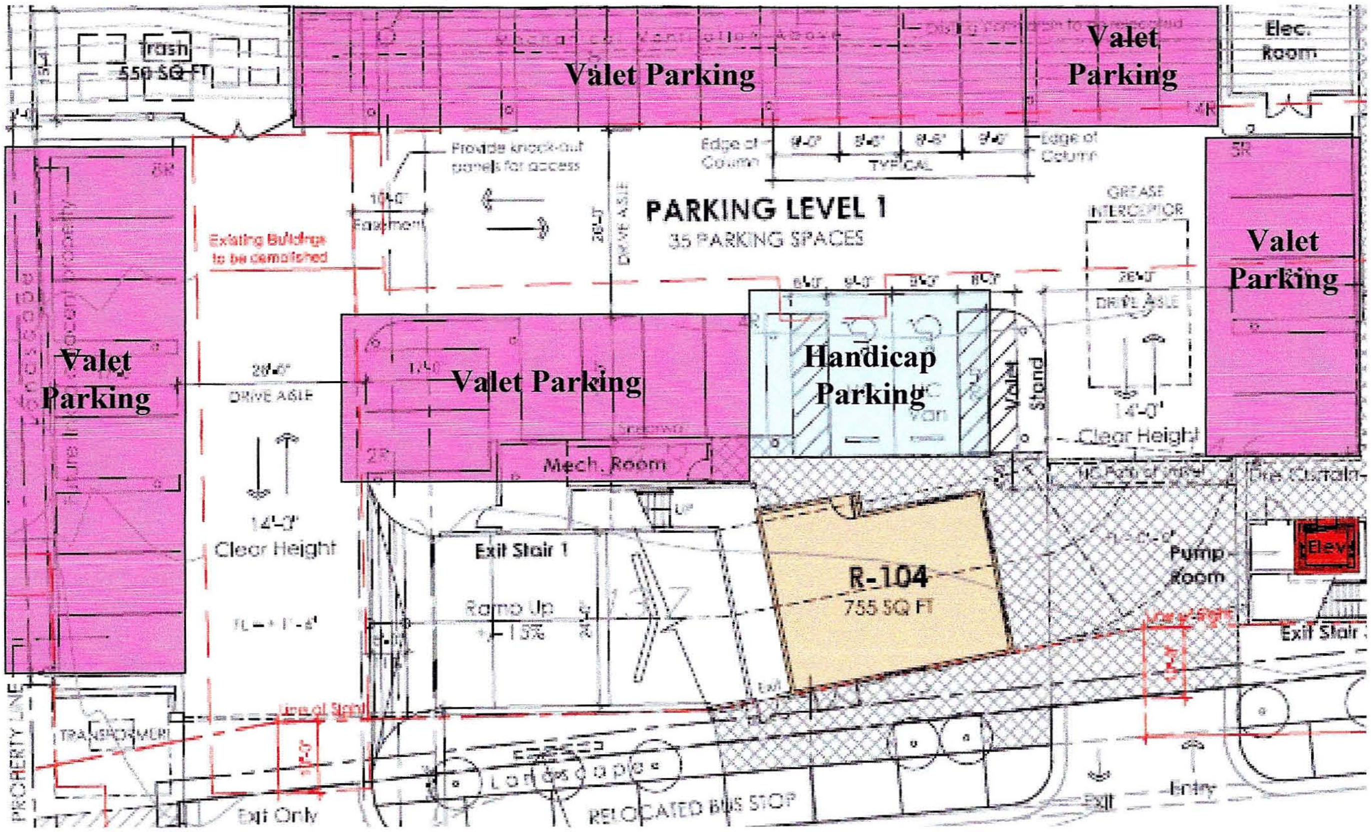
Level 2 – Primary Valet Storage



Level 3 – Primary Valet Storage



Level 1 – After 5pm



Valet Operation

Guests would be greeted and vehicles parked in the following manner for the valet parking operation:

Guest Experience

1. Guest is greeted by valet attendant on Parking Level 1 in Level 1 Valet Greeting Stalls in the Northeast corner Monday – Friday 10am-5pm and in spaces on Level 1 in the Southwest corner of the garage after 5pm and on weekends.
2. Guest is issued a valet claim check by valet attendant.
3. Guest leaves parking garage via elevator or sidewalk and enters Mariner's Pointe Shops & Restaurants.
4. Guest returns to Parking Level 1 and presents valet claim check to valet attendant.
5. Valet attendant retrieves guest's keys, runs to vehicle and pulls the vehicle up in the exit lane on Parking Level 1.
6. Valet attendant opens all doors for guest, thanks the guest and hands the driver the vehicle keys.
7. Guest departs in their vehicle through east exit.

Double-Parking Procedures

1. A self-locking key box will be located on a wall or column in each row where vehicles are double-parked. Keys are stored in these boxes for vehicles that are double-parked.
2. When a blocked-in vehicle is requested, the valet attendant will retrieve the keys for the vehicle in the front tandem stall from the key box located on the row where the car is parked. The front vehicle will be pulled out and re-parked on a neighboring tandem stall and the keys hung in the key box. The rear vehicle will be pulled out and taken to the guest on Parking Level 1.
3. If the garage is completely full, the valet that pulls out from the front space of a tandem stall will pull out into the lane while a second valet pulls out the rear vehicle and proceeds to Level 1. The first vehicle will be re-parked in the rear tandem stall and the keys hung in the key box.
4. Vehicle keys will be locked in the locking key boxes at all times when parked.

Valet Vehicle Arrival and Departure Staging on Level 1

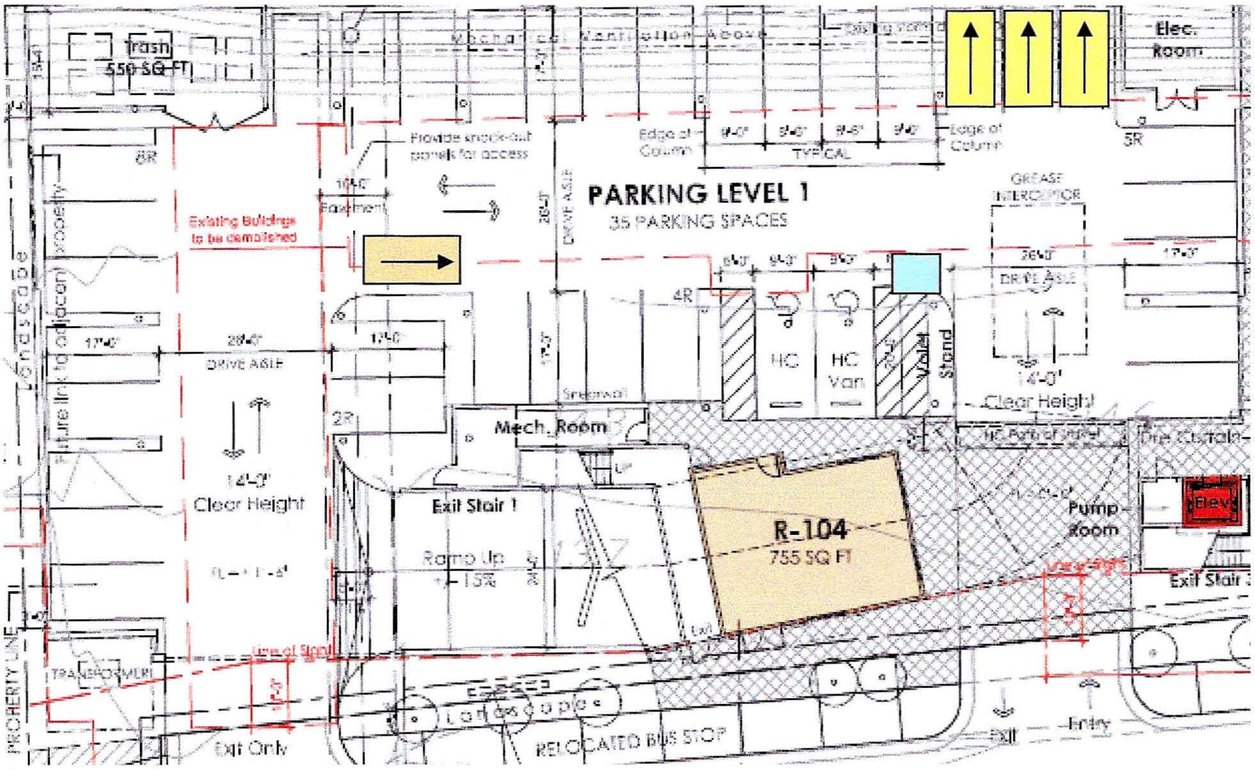
There would be two staging setups used in operating the valet parking operation. The first setup would be for non-peak times. The second is for peak business times. Both configurations are described in the following pages. Vehicles would be parked from the rear of the line first, so that the line of staged vehicles would quickly get shorter.

Non-Peak Valet Operations

11am – 5pm	Monday – Sunday
5pm – 11pm	Sunday – Thursday (October – March)
5pm – 11pm	Sunday – Tuesday (April – September)

* Lunch or Dinner shifts during events, holidays, or periods of good weather may change to Peak Operation.

Arrival:	Vehicles would be greeted head-in via the spaces in the northeast corner of Level 1. We could greet 3 arriving vehicles at a given time.
Departure:	Departing guests' vehicles would be pulled up in front of the wall located on the south wall of Level 1, paying special attention not to pull up vehicles in the lane behind the parking stalls. Guests' vehicles would exit through the east exit.



🟨 Arriving

🟫 Departing

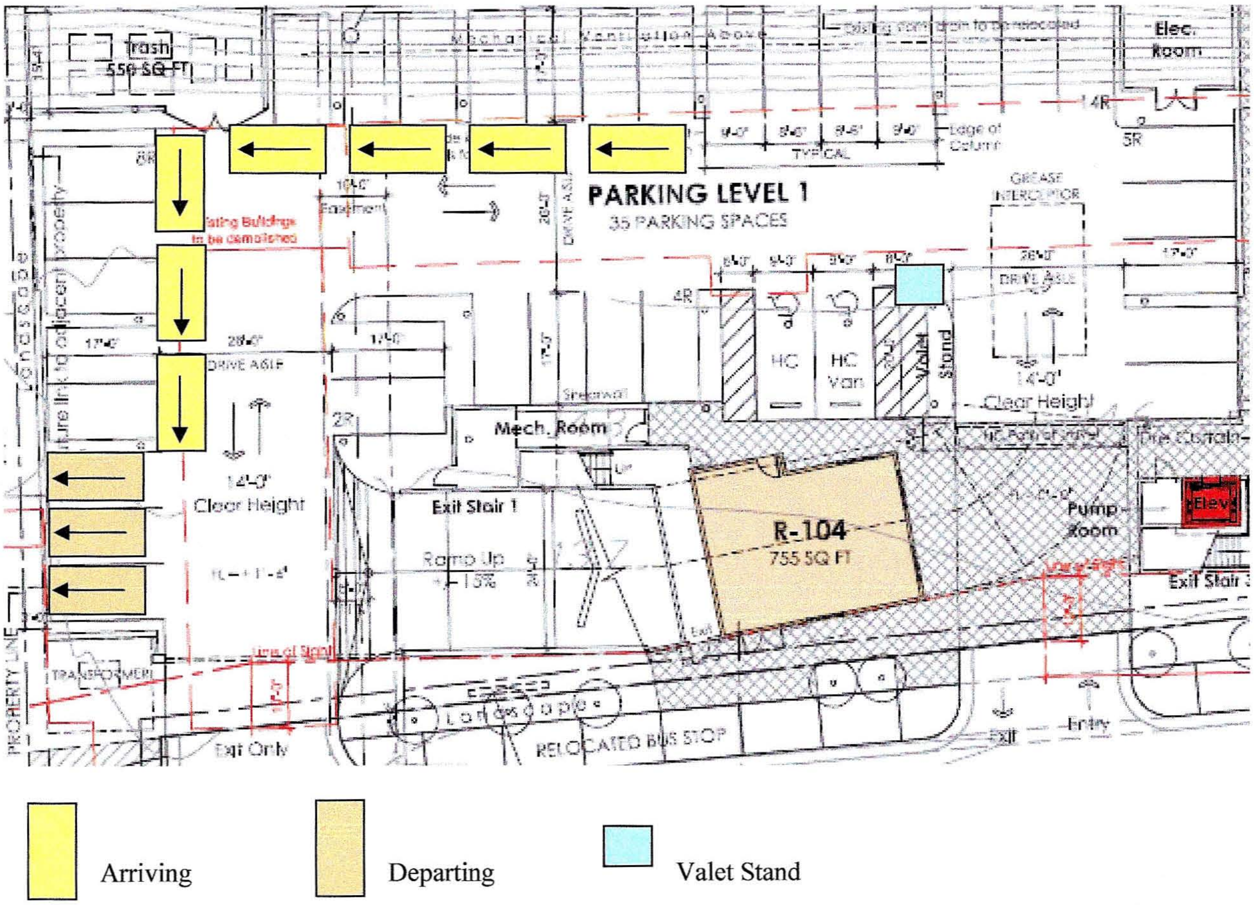
🟦 Valet Stand

Peak Valet Operations

5pm – 11pm Friday - Saturday (October – March)
5pm – 11pm Wednesday – Saturday (April – September)
Traffic would become one way on Level 1, going east to west while operating in this configuration.

Arrival: Vehicles would be greeted in-line in the lane, stacking from the west lane before the ramp and following back along the north and east walls all the way to the entrance. 7 vehicles could be greeted at one time.

Departure: Departing guests' vehicles would be pulled up in the three stalls at the southwest corner of the garage, as seen below. A traffic director/exit greeter would be stationed in the lane at peak times to coordinate the movement of vehicles out of the garage.



Roll Away Valet Podium Example for Use on Level 1

20" deep x 29" wide x 47" high

Appendix B.
Air Quality and Greenhouse Gas Emissions Analysis

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Air Quality and Greenhouse Gas Background and Modeling Data

AIR QUALITY

The Air Quality section addresses the impacts of the proposed project on ambient air quality and the exposure of people, especially sensitive individuals, to unhealthful pollutant concentrations. Air pollutants of concern include ozone (O_3), carbon monoxide (CO), particulate matter (PM_{10} and $PM_{2.5}$), and oxides of nitrogen (NO_x). This section analyzes the type and quantity of emissions that would be generated by the construction and operation of the proposed project.

CLIMATE/METEOROLOGY

The project site is in the South Coast Air Basin (SoCAB), which includes all of Orange County and the nondesert portions of Los Angeles, Riverside, and San Bernardino Counties. The air basin is in a coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean in the southwest quadrant, with high mountains forming the remainder of the perimeter. The general region lies in the semipermanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. This usually mild weather pattern is interrupted infrequently by periods of extremely hot weather, winter storms, and Santa Ana winds.

The annual average temperature varies little throughout the SoCAB, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station nearest to the site is the Newport Beach Harbor Monitoring Station (ID No. 046175). The average low is reported at 46.9°F in January and the average high is 73.5°F in August (WRCC 2011).

In contrast to the very steady temperature pattern, rainfall is seasonally and annually highly variable. Almost all rain falls from November through April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast with slightly heavier shower activity in the east and over the mountains. Rainfall in the project area averages approximately 11.08 inches per year, as measured in the project vicinity (WRCC 2011).

Although the SoCAB has a semi-arid climate, the air near the surface is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the SoCAB by off-shore winds, the ocean effect is dominant. Periods of heavy fog, especially along the coastline, are frequent; and low stratus clouds, often referred to as high fog, are a characteristic climatic feature. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the SoCAB.

Wind patterns across the south coastal region are characterized by westerly and southwesterly on-shore winds during the day and easterly or northeasterly breezes at night. Wind speed is somewhat greater during the dry summer months than during the rainy winter season. Annually, typical winds in the project area average about 5 to 8 miles per hour during the day and 2 to 5 miles per hour during the night.

Between periods of wind, periods of air stagnation may occur, both in the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During the winter and fall months, surface high-pressure systems over the SoCAB, combined with other meteorological conditions, can result in very strong, downslope Santa Ana winds. These winds normally continue a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east affect the transport and diffusion of pollutants by inhibiting the eastward transport of pollutants. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of coastal southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions.

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, there are two similarly distinct types of temperature inversions that control the vertical depth through which pollutants are mixed. These inversions are the marine/subsidence inversion and the radiation inversion. The height of the base of the inversion at any given time is known as the “mixing height.” The combination of winds and inversions are critical determinants in leading to the highly degraded air quality in summer and the generally good air quality in the winter in the project area.

AIR QUALITY REGULATIONS, PLANS AND POLICIES

The proposed project has the potential to release gaseous emissions of criteria pollutants and dust into the ambient air; therefore, it falls under the ambient air quality standards promulgated at the local, state, and federal levels. The project site is in the SoCAB and is subject to the rules and regulations imposed by the South Coast Air Quality Management District (SCAQMD). However, the SCAQMD reports to California Air Resources board (CARB), and all criteria emissions are also governed by the California and national Ambient Air Quality Standards (AAQS). Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

Ambient Air Quality Standards

The Federal Clean Air Act (FCAA) was passed in 1963 by the US Congress and has been amended several times. The 1970 Clean Air Act Amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting AAQS and the Prevention of Significant Deterioration program. The 1990 Amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The FCAA allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the state to achieve and maintain the State AAQS by the earliest practical date. The State AAQS tend to be more restrictive than the Federal AAQS and are based on even greater health and welfare concerns.

The AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect sensitive receptors, those most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both the State of California and the federal government have established health-based AAQS for seven air pollutants. As shown in Table 1, these pollutants include O_3, NO_2, CO, sulfur dioxide (SO_2), PM_{10}, $PM_{2.5}$, and lead (Pb). In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Table 1
Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard	Federal Primary Standard	Major Pollutant Sources
Ozone (O_3)	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.075 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	Annual Average	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO_2)	1 hour	0.25 ppm	0.075 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	24 hours	0.04 ppm	*	
Suspended Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 $\mu g/m^3$	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 $\mu g/m^3$	150 $\mu g/m^3$	
Suspended Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	12 $\mu g/m^3$	15 $\mu g/m^3$	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35 $\mu g/m^3$	
Lead (Pb)	Monthly	1.5 $\mu g/m^3$	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Quarterly	*	1.5 $\mu g/m^3$	
	3-Month Average	*	0.15 $\mu g/m^3$	
Sulfates (SO_4)	24 hours	25 $\mu g/m^3$	*	Industrial processes.

Source: CARB 2010
ppm: parts per million; $\mu g/m^3$: micrograms per cubic meter
* Standard has not been established for this pollutant/duration by this entity.

Air Quality Management Planning

The SCAQMD and the Southern California Association of Governments (SCAG) are the agencies responsible for preparing the Air Quality Management Plan (AQMP) for the SoCAB. Since 1979, a number of AQMPs have been prepared.

The most recent adopted comprehensive plan is the 2007 AQMP, which was adopted on June 1, 2007, and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. The 2007 AQMP proposes attainment demonstration of the federal $PM_{2.5}$ standards through a more focused control of SO_X, directly emitted $PM_{2.5}$, and focused control of NO_X and VOC by 2015. The eight-hour ozone control strategy builds upon the $PM_{2.5}$ strategy, augmented with additional NO_X and VOC reductions to meet the standard by 2024, assuming a bump-up (i.e., extended attainment date) is obtained.

The AQMP provides local guidance for the State Implementation Plan, which provides the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. Severity classifications for ozone nonattainment range in magnitude: marginal, moderate, serious, severe, and extreme. The attainment status for the SoCAB is included in Table 2.

The SoCAB is also designated as attainment of the CAAQS for SO_2, lead, and sulfates. According to the 2007 AQMP, the SoCAB will have to meet the new federal $PM_{2.5}$ standards by 2015 and the 8-hour ozone standard by 2024, and will most likely have to achieve the recently revised 24-hour $PM_{2.5}$ standard by 2020. The SCAQMD designated the SoCAB as nonattainment for NO_2 (entire basin) and Lead (Los Angeles County only) under the CAAQS and attainment/maintenance for PM_{10} under the National AAQS (CARB 2010b).

Table 2

Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
Ozone – 1-hour	Extreme Nonattainment	Extreme Nonattainment[1]
Ozone – 8-hour	Extreme Nonattainment	Severe-17 Nonattainment[2]
PM_{10}	Serious Nonattainment	Attaniment/Maintenance[3]
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment[4]
NO_2	Nonattainment[5]	Attainment/Maintenance
SO_2	Attainment	Attainment
Lead	Nonattainment[6]	Attainment[6]
All others	Attainment/Unclassified	Attainment/Unclassified

Source: CARB 2010b.

[1] Under prior standard.

[2] May petition for Extreme.

[3] Annual Standard Revoked September 2006. CARB approved SCAQMD's redesignation request for the SoCAB on March 25, 2010.

[4] The USEPA granted the request to redesignate the SoCAB from nonattainment to attainment for the CO NAAQS on May 11, 2007 (Federal Register Volume 71, No. 91), which became effective as of June 11, 2007.

[5] The state NO_2 standard was strengthened in 2007 from 0.25 ppm to 0.18 ppm. Under the revised standards, the entire SoCAB was designated as nonattainment on March 25, 2010. In addition, the USEPA adopted a new 1-hour NO_x standard of 0.100 ppm on January 22, 2010.

[6] The Los Angeles portion of the SoCAB was designated as nonattainment for lead under the new federal and existing state AAQS as a result of large industrial emitters. Remaining areas within the SoCAB are unclassified. (March 25, 2010)

Existing Ambient Air Quality

Existing levels of ambient air quality and historical trends and projections in the vicinity of the project site are best documented by measurements made by the SCAQMD. The project site is in Source Receptor Area (SRA) 18 – North Orange County Coastal (Coastal). The air quality monitoring station in SRA 18 is the Costa Mesa – Mesa Verde Monitoring Station. As this monitoring station does not monitor PM_{10} and $PM_{2.5}$, data were supplemented from the Mission Viejo Drive Monitoring Station. Data from these stations are summarized in Table 3 (CARB 2010). The data show occasional violations of both the state and federal ozone standards. The data also indicate that the area occasionally exceeds the state PM_{10} standard and federal $PM_{2.5}$ standard. Neither the CO nor NO_2 standard has been violated in the last five years at this station.

Table 3
Ambient Air Quality Monitoring Summary

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels during Such Violations				
	2005	**2006**	**2007**	**2008**	**2009**
Ozone (O_3)[1]					
State 1-Hour ≥ 0.09 ppm	0	0	0	0	0
State 8-hour ≥ 0.07 ppm	2	0	2	5	3
Federal 8-Hour > 0.075[2] ppm	0	0	0	3	0
Max. 1-Hour Conc. (ppm)	0.085	0.074	0.082	0.094	0.087
Max. 8-Hour Conc. (ppm)	0.072	0.062	0.072	0.079	0.072
Carbon Monoxide (CO)[1]					
State 8-Hour > 9.0 ppm	0	0	0	0	0
Federal 8-Hour ≥ 9.0 ppm	0	0	0	0	0
Max. 8-Hour Conc. (ppm)	3.16	3.01	3.13	1.97	2.16
Nitrogen Dioxide (NO_2)[1]					
State 1-Hour ≥ 0.18[3] ppm	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.085	0.101	0.074	0.081	0.065
Sulfur Dioxide (SO_2)[1]					
State 1-Hour ≥ 0.04 ppm	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.008	0.005	0.004	0.003	0.004
Coarse Particulates (PM_{10})[4]					
State 24-Hour > 50 $\mu g/m^3$	0	1	3	0	1
Federal 24-Hour > 150 $\mu g/m^3$	0	0	0	0	0
Max. 24-Hour Conc. ($\mu g/m^3$)	41.0	57.0	74.0	42.0	56.0
Fine Particulates ($PM_{2.5}$)[4]					
Federal 24-Hour > 35[5] $\mu g/m^3$	0	1	2	0	1
Max. 24-Hour Conc. ($\mu g/m^3$)	35.3	46.9	46.8	32.6	39.2

Source: CARB Ambient Air Quality Monitoring Data, Accessed September 2010.
ppm: parts per million; $\mu g/m^3$: or micrograms per cubic meter; NS: No Standard.

[1] Data obtained from the Costa Mesa – Mesa Verde Drive Monitoring Station, located at 2850 Mesa Verde Dr. East Costa Mesa, CA 92626.

[2] The USEPA recently revised the 8-hour O_3 standard from 0.08 ppm to 0.075 ppm, effective May 2008.

[3] The NO_X standard was amended on February 22, 2007, to lower the 1-hr standard to 0.18 ppm.

[4] Data obtained from the Mission Viejo Monitoring Station, located at 26081 Via Pera, Mission Viejo, CA 92691.

[5] The USEPA revised the 24-hour $PM_{2.5}$ standard from 65 $\mu g/m^3$ to 35 $\mu g/m^3$ which took effect in December 2006.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases.

Residential areas are considered to be sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Other sensitive receptors can include retirement facilities, hospitals, and schools. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Generally, industrial, commercial, retail, and office areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, as the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the public.

METHODOLOGY

Projected construction- and operation-related air pollutant emissions are calculated using the California Emissions Estimator Model (CalEEMod) distributed by the SCAQMD. CalEEMod compiles an emissions inventory of construction, stationary, and vehicle emissions sources. The calculated emissions of the project are compared to thresholds of significance for individual projects using the SCAQMD's *CEQA Air Quality Analysis Guidance Handbook*.

THRESHOLDS OF SIGNIFICANCE

CEQA allows for the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. The SCAQMD has established thresholds of significance for regional air quality emissions for construction activities and project operation. In addition to the daily thresholds listed above, projects are also subject to the AAQS. These are addressed through an analysis of localized significance thresholds (LSTs).

Regional Significance Thresholds

The SCAQMD has adopted regional construction and operational emissions thresholds to determine project-specific and cumulative impacts on air quality within the SoCAB, as shown in Table 4.

Table 4
SCAQMD Regional Significance Thresholds

Air Pollutant	Construction Phase	Operational Phase
Volatile Organic Gases (VOC)	75 lbs/day	55 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Nitrogen Oxides (NO_X)	100 lbs/day	55 lbs/day
Sulfur Oxides (SO_X)	150 lbs/day	150 lbs/day
Coarse Inhalable Particulates (PM_{10})	150 lbs/day	150 lbs/day
Fine Inhalable Particulates ($PM_{2.5}$)	55 lbs/day	55 lbs/day

CO Hotspot Analysis

Exceedance of the one- and eight-hour ambient air quality standards would constitute a significant air quality impact:

- 1-hour = 20 parts per million
- 8-hour = 9 parts per million

Localized Significance Thresholds

The SCAQMD developed LSTs for emissions of NO_X, CO, PM_{10}, and $PM_{2.5}$ generated at the project site (off-site mobile-source emissions are not included the LST analysis). LSTs represent the maximum emissions at a project site that are not expected to cause or contribute to an exceedance of the most stringent federal or state AAQS. LSTs are based on the ambient concentrations of that pollutant within the project air pollutant monitoring station area, or source receptor area (SRA) and the distance to the nearest sensitive receptor. LST analysis for construction is applicable for all projects of five acres and less; however, it can be used as screening criteria for larger projects to determine whether or not dispersion modeling may be required. The LSTs for a 0.76-acre in SRA 18 for sensitive receptors within 82 feet (25 meters) are shown in Table 5.

Table 5
Localized Significance Thresholds

Air Pollutant	Threshold (lbs/day)	
	Construction	Operation
Nitrogen Oxides (NO_X)	92	92
Carbon Monoxide (CO)	647	647
Coarse Particulates (PM_{10})	4	1
Fine Particulates ($PM_{2.5}$)	3	1

Source: SCAQMD 2006, Appendix A: Based on LSTs for a project site in SRA 20 that is 0.76 acre at a distance within 25 meters (82 feet) between the source and receptor.

GREENHOUSE GAS EMISSIONS

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as greenhouse gases (GHGs) to the atmosphere. The primary source of these GHG is from fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG—water vapor, carbon (CO_2), methane (CH_4), and ozone (O_3)—that are the likely cause of an increase in global average temperatures observed within the 20th and 21st centuries. Other GHG identified by the IPCC that contribute to global warming effect to a lesser extent include nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons.

REGULATORY SETTINGS

Regulation of GHG Emissions on a National Level

On April 17, 2009, the USEPA declared CO_2 a threat to public health and welfare, which is the first step towards development of AAQS standards for this air pollutant. However, there are no adopted regulations to combat global climate change on a national level.

Regulation of GHG Emissions on a State Level

Assembly Bill 32

Assembly Bill 32 (AB 32), the Global Warming Solutions Act, was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG. AB 32 follows the first tier of emissions reduction targets established in Executive Order S-3-05, signed on June 1, 2005, which requires the state's global warming emissions to be reduced to 1990 levels by the year 2020. Executive Order S-3-05 also requires the state to reduce GHG emissions by 80 percent of 1990 levels by year 2050. Projected GHG emissions in California are estimated at 596 million metric tons (MTons) on 2020. In December 2007, CARB approved a 2020 emissions limit of 427 million metric tons (471 million tons) for the state. The 2020 target requires emissions reductions of 169 million MTons, approximately 30 percent of the projected emissions compared to business-as-usual (BAU) in year 2020 (i.e., 30 percent of 596 MTons). CARB defines BAU in their Scoping Plan as emissions levels that would occur if California continued to grow and add new GHG emissions but did not adopt any measures to reduce emissions. Projections for each emission-generating sector were compiled and used to estimate emissions for 2020 based on 2002-2004 emissions intensities. Under CARB's definition of BAU, new growth is assumed to have the same carbon intensities as is typical practice in 2002-2004.

In order to effectively implement the cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor global warming emissions levels, prepare a plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and programs to implement the plan by 2012. The Climate Action Registry Reporting Online Tool was established through the Climate Action Registry to track GHG emissions. On December 11, 2008, CARB adopted the *Climate Change Scoping Plan.* Key elements of CARB's GHG reduction plan are:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards.

- Achieving a statewide renewables energy mix of 33 percent.

- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system.

- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets.

- Adopting and implementing measures pursuant to state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard

- Creating target fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the state's long-term commitment to AB 32 implementation.

Table 6 shows the proposed reductions from regulations and programs outlined in the Scoping Plan. While local government operations were not accounted for in achieving the 2020 emissions reduction, they are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of GHG. In recognition of the critical role local governments will play in successful implementation of AB 32, CARB is recommending GHG reduction goals of 15 percent of today's levels by 2020 to ensure that municipal and community-wide emissions match the state's reduction target. Measures that local governments take to support shifts in land use patterns are anticipated to emphasize compact, low-impact growth over development in greenfields, resulting in fewer vehicle miles traveled.

Regulation of GHG Emissions on a Regional Level

In 2008, Senate Bill 375 (SB 375) was adopted to connect the GHG emissions reductions targets established in the Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce vehicle miles traveled and vehicle trips. Specifically, SB 375 requires CARB to establish GHG emissions reduction targets for each of the 17 regions in California managed by a Metropolitan Planning Organization (MPO). The GHG emission reduction targets for each region were adopted on September 29, 2010 and range from 7 to 8 percent in 2020 and between 13 to 16 percent in 2035 from 2005 base year for the different MPOs. The Southern California Association of Governments (SCAG) is the MPO for the southern California region, which includes the counties of Los Angeles, Orange, San Bernardino County, Riverside, Ventura, and Riverside. CARB is proposing to set SCAG's targets for 8 percent reduction from 2005 by 2020 and 13 percent reduction from 2005 by 2035.

The 2020 targets are smaller than the 2035 targets because a significant portion of the built environment in 2020 has been defined by decisions that have already been made. In general, the 2020 scenarios reflect that more time is needed for large land use and transportation infrastructure changes. Most of the reductions in the interim are anticipated to come from improving the efficiency of the region's existing transportation network. The proposed targets would result in 3 million MTons of GHG reductions by 2020 and 15 million MTons of GHG reductions by 2035. Based on these reductions, the passenger vehicle target in CARB's Scoping Plan (for AB 32) would be met (CARB 2010d).

Table 6
Scoping Plan Greenhouse Gas Reduction Measures and Reductions toward 2020 Target

Recommended Reduction Measures	Reductions Counted toward 2020 Target of 169 MMT CO_{2e}	Percentage of Statewide 2020 Target
Cap and Trade Program and Associated Measures		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33 percent by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets[1]	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
Total Cap and Trade Program Reductions	**146.7**	**87%**
Uncapped Sources/Sectors Measures		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
Total Uncapped Sources/Sectors Reductions	**27.3**	**16%**
Total Reductions Counted toward 2020 Target	**174**	**100%**
Other Recommended Measures – Not Counted toward 2020 Target		
State Government Operations	1.0 to 2.0	1%
Local Government Operations	To Be Determined[2]	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
Total Other Recommended Measures – Not Counted toward 2020 Target	**42.8**	**NA**

Source: CARB 2008. Note: the percentages in the right-hand column add up to more than 100 percent because the emissions reduction goal is 169 MMTons and the Scoping Plan identifies 174 MMTons of emissions reductions strategies.

$MMTCO_{2e}$: million metric tons of CO_{2e}

[1] Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.

[2] According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO_{2e} (or approximately 1.2 percent of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 target.

SB 375 requires the MPOs to prepare a Sustainable Communities Strategy (SCS) in their Regional Transportation Plan. For the Southern California Association of Governments (SCAG) region, the first SCS is anticipated by May 2012. The SCS sets forth a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement). The SCS is meant to provide individual jurisdictions with growth strategies that together achieve the regional GHG emissions reduction targets. However, the SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS but provides incentives for consistency for governments and developers. If the SCS is unable to achieve the regional GHG emissions reduction targets, then the MPO is required to prepare an Alternative Planning Strategy that shows how the GHG emissions reduction target could be achieved through alternative development patterns, infrastructure, and/or transportation measures.

THRESHOLDS OF SIGNIFICANCE

The CEQA Guidelines recommend that a lead agency consider the following when assessing the significance of impacts from GHG emissions on the environment:

1. The extent to which the project may increase (or reduce) GHG emissions as compared to the existing environmental setting;

2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;

3. The extent to which the project complies with regulations or requirements adopted to implement an adopted statewide, regional, or local plan for the reduction or mitigation of GHG emissions[1].

South Coast Air Quality Management District

The issue of global climate change is, by definition, a cumulative environmental impact. In accordance with the South Coast Air Quality Management District (SCAQMD) methodology, any project that produces a significant regional air quality impact in an area adds to the cumulative impact. The SCAQMD is the local air district responsible for establishing thresholds for air quality in the South Coast Air Basin. To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, the SCAQMD has convened a GHG CEQA Significance Threshold Working Group. On December 5, 2008, the SCAQMD adopted a threshold of 10,000 MTons of CO_{2e} for industrial projects for which they are designated the lead agency for under CEQA. Currently the SCAQMD is in the process of establishing a threshold for GHG emissions to determine the project's regional contribution toward global climate change impacts for California. SCAQMD is proposing to adopt a tiered approach for evaluating GHG emissions for development project where SCAQMD is not the lead agency:

- If a project is exempt from CEQA, project-level and cumulative GHG emissions are less than significant.

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[1] The Governor's Office of Planning and Research recommendations include a requirement that such a plan must be adopted through a public review process and include specific requirements that reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable, notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

- If the project complies with a GHG emissions reduction plan or mitigation programs that avoids or substantially reduces GHG emissions in the geographic area (i.e., City or County) in which the project is located, project-level and cumulative GHG emissions are less than significant.

For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, SCAQMD requires an assessment of GHG emissions. SCAQMD is proposing a screening-level threshold of 3,000 MTons annually for all land use types. This threshold is based on a review of the Governor's Office of Planning and Research database of CEQA projects. Based on their review, 90 percent of CEQA projects would exceed 3,000 MTons per year. Therefore, projects that do not exceed 3,000 MTons would have a nominal; and therefore, less than cumulatively considerable impact on GHG emissions:

- If GHG emissions are less than the screening-level threshold, project-level and cumulative GHG emissions are less than significant.
- If emissions exceed the screening threshold a more detailed review of the project's GHG emissions is warranted.

Projects that exceed the screening threshold would require additional technical analysis to determine level of significance. SCAQMD is proposing to adopt performance standards for projects that exceed the screening threshold. The current recommended approach is per-capita efficiency targets. SCAQMD is proposing a 2020 efficiency target of 4.8 MTons per year per service population for project-level analyses and 6.6 MTons per year per service population for plan level (e.g., program-level) projects. Service population refers to residents or employees generated by a project site. If projects exceeds these per-capita efficiency targets, GHG emissions would be considered potentially significant in the absence of mitigation measures.

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Mariner's Pointe

Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Medical Office Building	3	1000sqft
Parking Structure	50.27	1000sqft
Quality Restaurant	12.77	1000sqft
Strip Mall	7.24	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Southern California Edison
Climate Zone	8	**Precipitation Freq (Days)**	30		

1.3 User Entered Comments

Project Characteristics -

Land Use - Based on information provided project applicant.

Construction Phase - Based on construction information provided and verified by Project Applicant

Off-road Equipment - Based on list verified by project applicant.

Off-road Equipment - Based on list verified by project applicant.

Off-road Equipment - As verfied by project applicant.

Off-road Equipment - Based on list verified by project applicant.

Off-road Equipment - Based on list verified by project applicant.

Off-road Equipment - Verified by project applicant.

Off-road Equipment - Based on list verified by project applicant.

Demolition -

Construction Off-road Equipment Mitigation -

Water Mitigation -

Vehicle Trips - Consistent with Traffic Study

Off-road Equipment -

Mobile Land Use Mitigation -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	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
Year	lb/day										lb/day					
2011	7.45	38.56	31.76	0.05	5.07	2.87	7.94	0.08	2.87	2.95	0.00	5,141.08	0.00	0.54	0.00	5,152.36
2012	43.54	35.82	30.64	0.05	5.09	2.63	7.72	0.08	2.63	2.71	0.00	5,118.57	0.00	0.50	0.00	5,129.02
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	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
Year	lb/day										lb/day					
2011	7.45	38.56	31.76	0.05	5.07	2.87	7.94	0.08	2.87	2.95	0.00	5,141.08	0.00	0.54	0.00	5,152.36
2012	43.54	35.82	30.64	0.05	5.09	2.63	7.72	0.08	2.63	2.71	0.00	5,118.57	0.00	0.50	0.00	5,129.02
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	1.92	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.10	0.92	0.77	0.01		0.00	0.07		0.00	0.07		1,098.52		0.02	0.02	1,105.20
Mobile	16.56	13.24	73.49	0.10	20.40	0.47	20.87	0.35	0.47	0.82		9,708.16		0.52		9,719.14
Total	**18.58**	**14.16**	**74.26**	**0.11**	**20.40**	**0.47**	**20.94**	**0.35**	**0.47**	**0.89**		**10,806.68**		**0.54**	**0.02**	**10,824.34**

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	1.92	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.10	0.92	0.77	0.01		0.00	0.07		0.00	0.07		1,098.52		0.02	0.02	1,105.20
Mobile	14.18	11.36	63.75	0.08	16.07	0.38	16.45	0.28	0.38	0.66		7,778.92		0.43		7,788.02
Total	**16.20**	**12.28**	**64.52**	**0.09**	**16.07**	**0.38**	**16.52**	**0.28**	**0.38**	**0.73**		**8,877.44**		**0.45**	**0.02**	**8,893.22**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2011

Unmitigated Construction On-Site

	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					
Fugitive Dust					1.34	0.00	1.34	0.00	0.00	0.00						0.00
Off-Road	1.60	11.44	7.49	0.01		0.79	0.79		0.79	0.79		1,205.95		0.14		1,208.94
Total	**1.60**	**11.44**	**7.49**	**0.01**	**1.34**	**0.79**	**2.13**	**0.00**	**0.79**	**0.79**		**1,205.95**		**0.14**		**1,208.94**

3.2 Demolition - 2011

Unmitigated Construction Off-Site

	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					
Hauling	0.51	3.91	2.36	0.00	0.60	0.16	0.76	0.02	0.16	0.18		502.52		0.02		502.92
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.04	0.39	0.00	0.08	0.00	0.08	0.00	0.00	0.01		63.56		0.00		63.64
Total	**0.61**	**3.95**	**2.75**	**0.00**	**0.68**	**0.16**	**0.84**	**0.02**	**0.16**	**0.19**		**566.08**		**0.02**		**566.56**

Mitigated Construction On-Site

	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					
Fugitive Dust					0.57	0.00	0.57	0.00	0.00	0.00						0.00
Off-Road	1.60	11.44	7.49	0.01		0.79	0.79		0.79	0.79	0.00	1,205.95		0.14		1,208.94
Total	**1.60**	**11.44**	**7.49**	**0.01**	**0.57**	**0.79**	**1.36**	**0.00**	**0.79**	**0.79**	**0.00**	**1,205.95**		**0.14**		**1,208.94**

3.2 Demolition - 2011

Mitigated Construction Off-Site

	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					
Hauling	0.51	3.91	2.36	0.00	0.60	0.16	0.76	0.02	0.16	0.18		502.52		0.02		502.92
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.04	0.39	0.00	0.08	0.00	0.08	0.00	0.00	0.01		63.56		0.00		63.64
Total	**0.61**	**3.95**	**2.75**	**0.00**	**0.68**	**0.16**	**0.84**	**0.02**	**0.16**	**0.19**		**566.08**		**0.02**		**566.56**

3.3 Parking Lot Demolition - 2011

Unmitigated Construction On-Site

	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					
Fugitive Dust					0.93	0.00	0.93	0.00	0.00	0.00						0.00
Off-Road	1.60	11.44	7.49	0.01		0.79	0.79		0.79	0.79		1,205.95		0.14		1,208.94
Total	**1.60**	**11.44**	**7.49**	**0.01**	**0.93**	**0.79**	**1.72**	**0.00**	**0.79**	**0.79**		**1,205.95**		**0.14**		**1,208.94**

3.3 Parking Lot Demolition - 2011

Unmitigated Construction Off-Site

	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					
Hauling	0.35	2.71	1.63	0.00	0.31	0.11	0.43	0.01	0.11	0.12		348.42		0.01		348.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.04	0.39	0.00	0.08	0.00	0.08	0.00	0.00	0.01		63.56		0.00		63.64
Total	**0.45**	**2.75**	**2.02**	**0.00**	**0.39**	**0.11**	**0.51**	**0.01**	**0.11**	**0.13**		**411.98**		**0.01**		**412.33**

Mitigated Construction On-Site

	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					
Fugitive Dust					0.40	0.00	0.40	0.00	0.00	0.00						0.00
Off-Road	1.60	11.44	7.49	0.01		0.79	0.79		0.79	0.79	0.00	1,205.95		0.14		1,208.94
Total	**1.60**	**11.44**	**7.49**	**0.01**	**0.40**	**0.79**	**1.19**	**0.00**	**0.79**	**0.79**	**0.00**	**1,205.95**		**0.14**		**1,208.94**

3.3 Parking Lot Demolition - 2011

Mitigated Construction Off-Site

	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					
Hauling	0.35	2.71	1.63	0.00	0.31	0.11	0.43	0.01	0.11	0.12		348.42		0.01		348.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.04	0.39	0.00	0.08	0.00	0.08	0.00	0.00	0.01		63.56		0.00		63.64
Total	**0.45**	**2.75**	**2.02**	**0.00**	**0.39**	**0.11**	**0.51**	**0.01**	**0.11**	**0.13**		**411.98**		**0.01**		**412.33**

3.4 Grading - 2011

Unmitigated Construction On-Site

	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					
Fugitive Dust					1.28	0.00	1.28	0.00	0.00	0.00						0.00
Off-Road	2.16	16.36	9.67	0.02		1.01	1.01		1.01	1.01		1,563.77		0.19		1,567.85
Total	**2.16**	**16.36**	**9.67**	**0.02**	**1.28**	**1.01**	**2.29**	**0.00**	**1.01**	**1.01**		**1,563.77**		**0.19**		**1,567.85**

3.4 Grading - 2011

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.16	0.06	0.63	0.00	0.12	0.00	0.13	0.00	0.00	0.01		101.70		0.01		101.83
Total	**0.16**	**0.06**	**0.63**	**0.00**	**0.12**	**0.00**	**0.13**	**0.00**	**0.00**	**0.01**		**101.70**		**0.01**		**101.83**

Mitigated Construction On-Site

	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					
Fugitive Dust					0.55	0.00	0.55	0.00	0.00	0.00						0.00
Off-Road	2.16	16.36	9.67	0.02		1.01	1.01		1.01	1.01	0.00	1,563.77		0.19		1,567.85
Total	**2.16**	**16.36**	**9.67**	**0.02**	**0.55**	**1.01**	**1.56**	**0.00**	**1.01**	**1.01**	**0.00**	**1,563.77**		**0.19**		**1,567.85**

3.4 Grading - 2011

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.16	0.06	0.63	0.00	0.12	0.00	0.13	0.00	0.00	0.01		101.70		0.01		101.83
Total	**0.16**	**0.06**	**0.63**	**0.00**	**0.12**	**0.00**	**0.13**	**0.00**	**0.00**	**0.01**		**101.70**		**0.01**		**101.83**

3.5 Retention Wall Construction - 2011

Unmitigated Construction On-Site

	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					
Off-Road	1.34	9.82	6.58	0.01		0.58	0.58		0.58	0.58		1,098.02		0.12		1,100.53
Total	**1.34**	**9.82**	**6.58**	**0.01**		**0.58**	**0.58**		**0.58**	**0.58**		**1,098.02**		**0.12**		**1,100.53**

3.5 Retention Wall Construction - 2011

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.25	0.09	1.02	0.00	0.20	0.01	0.21	0.01	0.01	0.01		165.26		0.01		165.47
Total	**0.25**	**0.09**	**1.02**	**0.00**	**0.20**	**0.01**	**0.21**	**0.01**	**0.01**	**0.01**		**165.26**		**0.01**		**165.47**

Mitigated Construction On-Site

	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					
Off-Road	1.34	9.82	6.58	0.01		0.58	0.58		0.58	0.58	0.00	1,098.02		0.12		1,100.53
Total	**1.34**	**9.82**	**6.58**	**0.01**		**0.58**	**0.58**		**0.58**	**0.58**	**0.00**	**1,098.02**		**0.12**		**1,100.53**

3.5 Retention Wall Construction - 2011

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.25	0.09	1.02	0.00	0.20	0.01	0.21	0.01	0.01	0.01		165.26		0.01		165.47
Total	**0.25**	**0.09**	**1.02**	**0.00**	**0.20**	**0.01**	**0.21**	**0.01**	**0.01**	**0.01**		**165.26**		**0.01**		**165.47**

3.6 Parking Construction - 2011

Unmitigated Construction On-Site

	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					
Off-Road	3.07	18.70	11.67	0.02		1.71	1.71		1.71	1.71		1,661.60		0.27		1,667.38
Total	**3.07**	**18.70**	**11.67**	**0.02**		**1.71**	**1.71**		**1.71**	**1.71**		**1,661.60**		**0.27**		**1,667.38**

3.6 Parking Construction - 2011

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.26	2.23	1.47	0.00	0.11	0.07	0.19	0.01	0.07	0.08		320.86		0.01		321.08
Worker	0.58	0.21	2.36	0.00	0.46	0.01	0.47	0.02	0.01	0.03		381.37		0.02		381.86
Total	**0.84**	**2.44**	**3.83**	**0.00**	**0.57**	**0.08**	**0.66**	**0.03**	**0.08**	**0.11**		**702.23**		**0.03**		**702.94**

Mitigated Construction On-Site

	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					
Off-Road	3.07	18.70	11.67	0.02		1.71	1.71		1.71	1.71	0.00	1,661.60		0.27		1,667.38
Total	**3.07**	**18.70**	**11.67**	**0.02**		**1.71**	**1.71**		**1.71**	**1.71**	**0.00**	**1,661.60**		**0.27**		**1,667.38**

3.6 Parking Construction - 2011

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.26	2.23	1.47	0.00	0.11	0.07	0.19	0.01	0.07	0.08		320.86		0.01		321.08
Worker	0.58	0.21	2.36	0.00	0.46	0.01	0.47	0.02	0.01	0.03		381.37		0.02		381.86
Total	**0.84**	**2.44**	**3.83**	**0.00**	**0.57**	**0.08**	**0.66**	**0.03**	**0.08**	**0.11**		**702.23**		**0.03**		**702.94**

3.7 Utilities-Trenching - 2011

Unmitigated Construction On-Site

	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					
Off-Road	1.76	12.50	8.21	0.01		0.88	0.88		0.88	0.88		1,309.22		0.16		1,312.52
Total	**1.76**	**12.50**	**8.21**	**0.01**		**0.88**	**0.88**		**0.88**	**0.88**		**1,309.22**		**0.16**		**1,312.52**

3.7 Utilities-Trenching - 2011

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.04	0.39	0.00	0.08	0.00	0.08	0.00	0.00	0.01		63.56		0.00		63.64
Total	**0.10**	**0.04**	**0.39**	**0.00**	**0.08**	**0.00**	**0.08**	**0.00**	**0.00**	**0.01**		**63.56**		**0.00**		**63.64**

Mitigated Construction On-Site

	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					
Off-Road	1.76	12.50	8.21	0.01		0.88	0.88		0.88	0.88	0.00	1,309.22		0.16		1,312.52
Total	**1.76**	**12.50**	**8.21**	**0.01**		**0.88**	**0.88**		**0.88**	**0.88**	**0.00**	**1,309.22**		**0.16**		**1,312.52**

3.7 Utilities-Trenching - 2011

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.04	0.39	0.00	0.08	0.00	0.08	0.00	0.00	0.01		63.56		0.00		63.64
Total	**0.10**	**0.04**	**0.39**	**0.00**	**0.08**	**0.00**	**0.08**	**0.00**	**0.00**	**0.01**		**63.56**		**0.00**		**63.64**

3.7 Utilities-Trenching - 2012

Unmitigated Construction On-Site

	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					
Off-Road	1.64	11.60	8.17	0.01		0.80	0.80		0.80	0.80		1,309.22		0.15		1,312.28
Total	**1.64**	**11.60**	**8.17**	**0.01**		**0.80**	**0.80**		**0.80**	**0.80**		**1,309.22**		**0.15**		**1,312.28**

3.7 Utilities-Trenching - 2012

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.03	0.36	0.00	0.08	0.00	0.08	0.00	0.00	0.01		62.19		0.00		62.26
Total	**0.09**	**0.03**	**0.36**	**0.00**	**0.08**	**0.00**	**0.08**	**0.00**	**0.00**	**0.01**		**62.19**		**0.00**		**62.26**

Mitigated Construction On-Site

	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					
Off-Road	1.64	11.60	8.17	0.01		0.80	0.80		0.80	0.80	0.00	1,309.22		0.15		1,312.28
Total	**1.64**	**11.60**	**8.17**	**0.01**		**0.80**	**0.80**		**0.80**	**0.80**	**0.00**	**1,309.22**		**0.15**		**1,312.28**

3.7 Utilities-Trenching - 2012

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.03	0.36	0.00	0.08	0.00	0.08	0.00	0.00	0.01		62.19		0.00		62.26
Total	**0.09**	**0.03**	**0.36**	**0.00**	**0.08**	**0.00**	**0.08**	**0.00**	**0.00**	**0.01**		**62.19**		**0.00**		**62.26**

3.8 Building Construction - 2011

Unmitigated Construction On-Site

	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					
Off-Road	3.07	18.70	11.67	0.02		1.71	1.71		1.71	1.71		1,661.60		0.27		1,667.38
Total	**3.07**	**18.70**	**11.67**	**0.02**		**1.71**	**1.71**		**1.71**	**1.71**		**1,661.60**		**0.27**		**1,667.38**

3.8 Building Construction - 2011

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.77	6.70	4.42	0.01	0.96	0.22	1.18	0.03	0.22	0.25		962.59		0.03		963.24
Worker	1.75	0.64	7.08	0.01	4.04	0.04	4.08	0.05	0.04	0.09		1,144.11		0.07		1,145.58
Total	**2.52**	**7.34**	**11.50**	**0.02**	**5.00**	**0.26**	**5.26**	**0.08**	**0.26**	**0.34**		**2,106.70**		**0.10**		**2,108.82**

Mitigated Construction On-Site

	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					
Off-Road	3.07	18.70	11.67	0.02		1.71	1.71		1.71	1.71	0.00	1,661.60		0.27		1,667.38
Total	**3.07**	**18.70**	**11.67**	**0.02**		**1.71**	**1.71**		**1.71**	**1.71**	**0.00**	**1,661.60**		**0.27**		**1,667.38**

3.8 Building Construction - 2011

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.77	6.70	4.42	0.01	0.96	0.22	1.18	0.03	0.22	0.25		962.59		0.03		963.24
Worker	1.75	0.64	7.08	0.01	4.04	0.04	4.08	0.05	0.04	0.09		1,144.11		0.07		1,145.58
Total	**2.52**	**7.34**	**11.50**	**0.02**	**5.00**	**0.26**	**5.26**	**0.08**	**0.26**	**0.34**		**2,106.70**		**0.10**		**2,108.82**

3.8 Building Construction - 2012

Unmitigated Construction On-Site

	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					
Off-Road	2.84	17.48	11.56	0.02		1.59	1.59		1.59	1.59		1,661.60		0.25		1,666.95
Total	**2.84**	**17.48**	**11.56**	**0.02**		**1.59**	**1.59**		**1.59**	**1.59**		**1,661.60**		**0.25**		**1,666.95**

3.8 Building Construction - 2012

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.71	6.12	4.04	0.01	0.96	0.20	1.16	0.03	0.20	0.23		966.22		0.03		966.81
Worker	1.65	0.58	6.52	0.01	4.04	0.04	4.08	0.05	0.04	0.09		1,119.35		0.07		1,120.72
Total	**2.36**	**6.70**	**10.56**	**0.02**	**5.00**	**0.24**	**5.24**	**0.08**	**0.24**	**0.32**		**2,085.57**		**0.10**		**2,087.53**

Mitigated Construction On-Site

	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					
Off-Road	2.84	17.48	11.56	0.02		1.59	1.59		1.59	1.59	0.00	1,661.60		0.25		1,666.95
Total	**2.84**	**17.48**	**11.56**	**0.02**		**1.59**	**1.59**		**1.59**	**1.59**	**0.00**	**1,661.60**		**0.25**		**1,666.95**

3.8 Building Construction - 2012

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.71	6.12	4.04	0.01	0.96	0.20	1.16	0.03	0.20	0.23		966.22		0.03		966.81
Worker	1.65	0.58	6.52	0.01	4.04	0.04	4.08	0.05	0.04	0.09		1,119.35		0.07		1,120.72
Total	**2.36**	**6.70**	**10.56**	**0.02**	**5.00**	**0.24**	**5.24**	**0.08**	**0.24**	**0.32**		**2,085.57**		**0.10**		**2,087.53**

3.9 Architectural Coating - 2012

Unmitigated Construction On-Site

	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					
Archit. Coating	37.71					0.00	0.00		0.00	0.00						0.00
Off-Road	0.52	3.16	1.96	0.00		0.29	0.29		0.29	0.29		281.19		0.05		282.18
Total	**38.23**	**3.16**	**1.96**	**0.00**		**0.29**	**0.29**		**0.29**	**0.29**		**281.19**		**0.05**		**282.18**

3.9 Architectural Coating - 2012

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.11	0.04	0.43	0.00	0.09	0.00	0.09	0.00	0.00	0.01		74.62		0.00		74.71
Total	**0.11**	**0.04**	**0.43**	**0.00**	**0.09**	**0.00**	**0.09**	**0.00**	**0.00**	**0.01**		**74.62**		**0.00**		**74.71**

Mitigated Construction On-Site

	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					
Archit. Coating	37.71					0.00	0.00		0.00	0.00						0.00
Off-Road	0.52	3.16	1.96	0.00		0.29	0.29		0.29	0.29	0.00	281.19		0.05		282.18
Total	**38.23**	**3.16**	**1.96**	**0.00**		**0.29**	**0.29**		**0.29**	**0.29**	**0.00**	**281.19**		**0.05**		**282.18**

3.9 Architectural Coating - 2012

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.11	0.04	0.43	0.00	0.09	0.00	0.09	0.00	0.00	0.01		74.62		0.00		74.71
Total	**0.11**	**0.04**	**0.43**	**0.00**	**0.09**	**0.00**	**0.09**	**0.00**	**0.00**	**0.01**		**74.62**		**0.00**		**74.71**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

	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	14.18	11.36	63.75	0.08	16.07	0.38	16.45	0.28	0.38	0.66		7,778.92		0.43		7,788.02
Unmitigated	16.56	13.24	73.49	0.10	20.40	0.47	20.87	0.35	0.47	0.82		9,708.16		0.52		9,719.14
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	216.78	53.76	9.30	219,533	172,906
Parking Structure	0.00	0.00	0.00		
Quality Restaurant	2,297.32	2,297.32	2297.32	2,107,153	1,659,614
Strip Mall	641.75	641.75	641.75	738,957	582,010
Total	3,155.86	2,992.84	2,948.38	3,065,642	2,414,531

4.3 Trip Type Information

	Miles			Trip %		
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
Medical Office Building	8.90	13.30	7.40	29.60	51.40	19.00
Parking Structure	8.90	13.30	7.40	0.00	100.00	0.00

	Miles			Trip %		
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
Quality Restaurant	8.90	13.30	7.40	12.00	69.00	19.00
Strip Mall	8.90	13.30	7.40	16.60	64.40	19.00

5.0 Energy Detail

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	0.10	0.92	0.77	0.01		0.00	0.07		0.00	0.07		1,098.52		0.02	0.02	1,105.20
NaturalGas Unmitigated	0.10	0.92	0.77	0.01		0.00	0.07		0.00	0.07		1,098.52		0.02	0.02	1,105.20
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	lb/day										lb/day					
Medical Office Building	78.8219	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00		9.27		0.00	0.00	9.33
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Quality Restaurant	9217.88	0.10	0.90	0.76	0.01		0.00	0.07		0.00	0.07		1,084.46		0.02	0.02	1,091.06
Strip Mall	40.6799	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		4.79		0.00	0.00	4.81
Total		**0.10**	**0.91**	**0.77**	**0.01**		**0.00**	**0.07**		**0.00**	**0.07**		**1,098.52**		**0.02**	**0.02**	**1,105.20**

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	lb/day										lb/day					
Medical Office Building	0.0788219	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00		9.27		0.00	0.00	9.33
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Quality Restaurant	9.21788	0.10	0.90	0.76	0.01		0.00	0.07		0.00	0.07		1,084.46		0.02	0.02	1,091.06
Strip Mall	0.0406799	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		4.79		0.00	0.00	4.81
Total		**0.10**	**0.91**	**0.77**	**0.01**		**0.00**	**0.07**		**0.00**	**0.07**		**1,098.52**		**0.02**	**0.02**	**1,105.20**

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	1.92	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	1.92	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.46					0.00	0.00		0.00	0.00						0.00
Consumer Products	1.45					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**1.91**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

6.2 Area by SubCategory

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	0.46					0.00	0.00		0.00	0.00						0.00
Consumer Products	1.45					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**1.91**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Mariner's Pointe

Orange County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Medical Office Building	3	1000sqft
Parking Structure	50.27	1000sqft
Quality Restaurant	12.77	1000sqft
Strip Mall	7.24	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Southern California Edison
Climate Zone	8	**Precipitation Freq (Days)**	30		

1.3 User Entered Comments

Project Characteristics -

Land Use - Based on information provided project applicant.

Construction Phase - Based on construction information provided and verified by Project Applicant

Off-road Equipment - Based on list verified by project applicant.

Off-road Equipment - Based on list verified by project applicant.

Off-road Equipment - As verfied by project applicant.

Off-road Equipment - Based on list verified by project applicant.

Off-road Equipment - Based on list verified by project applicant.

Off-road Equipment - Verified by project applicant.

Off-road Equipment - Based on list verified by project applicant.

Demolition -

Construction Off-road Equipment Mitigation -

Water Mitigation -

Vehicle Trips - Consistent with Traffic Study

Off-road Equipment -

Mobile Land Use Mitigation -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	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
Year	lb/day										lb/day					
2011	7.84	39.05	31.79	0.05	5.07	2.87	7.94	0.08	2.87	2.95	0.00	5,057.46	0.00	0.54	0.00	5,068.71
2012	43.91	36.24	30.69	0.05	5.09	2.64	7.73	0.08	2.64	2.72	0.00	5,036.38	0.00	0.50	0.00	5,046.79
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	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
Year	lb/day										lb/day					
2011	7.84	39.05	31.79	0.05	5.07	2.87	7.94	0.08	2.87	2.95	0.00	5,057.46	0.00	0.54	0.00	5,068.71
2012	43.91	36.24	30.69	0.05	5.09	2.64	7.73	0.08	2.64	2.72	0.00	5,036.38	0.00	0.50	0.00	5,046.79
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	1.92	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.10	0.92	0.77	0.01		0.00	0.07		0.00	0.07		1,098.52		0.02	0.02	1,105.20
Mobile	18.70	14.30	77.42	0.09	20.40	0.47	20.87	0.35	0.47	0.82		9,174.97		0.45		9,184.50
Total	**20.72**	**15.22**	**78.19**	**0.10**	**20.40**	**0.47**	**20.94**	**0.35**	**0.47**	**0.89**		**10,273.49**		**0.47**	**0.02**	**10,289.70**

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	1.92	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.10	0.92	0.77	0.01		0.00	0.07		0.00	0.07		1,098.52		0.02	0.02	1,105.20
Mobile	15.87	12.21	68.42	0.07	16.07	0.39	16.45	0.28	0.39	0.66		7,356.68		0.38		7,364.75
Total	**17.89**	**13.13**	**69.19**	**0.08**	**16.07**	**0.39**	**16.52**	**0.28**	**0.39**	**0.73**		**8,455.20**		**0.40**	**0.02**	**8,469.95**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2011

Unmitigated Construction On-Site

	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					
Fugitive Dust					1.34	0.00	1.34	0.00	0.00	0.00						0.00
Off-Road	1.60	11.44	7.49	0.01		0.79	0.79		0.79	0.79		1,205.95		0.14		1,208.94
Total	**1.60**	**11.44**	**7.49**	**0.01**	**1.34**	**0.79**	**2.13**	**0.00**	**0.79**	**0.79**		**1,205.95**		**0.14**		**1,208.94**

3.2 Demolition - 2011

Unmitigated Construction Off-Site

	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					
Hauling	0.53	4.16	2.47	0.00	0.60	0.16	0.76	0.02	0.16	0.18		500.74		0.02		501.14
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.04	0.37	0.00	0.08	0.00	0.08	0.00	0.00	0.01		59.43		0.00		59.51
Total	**0.65**	**4.20**	**2.84**	**0.00**	**0.68**	**0.16**	**0.84**	**0.02**	**0.16**	**0.19**		**560.17**		**0.02**		**560.65**

Mitigated Construction On-Site

	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					
Fugitive Dust					0.57	0.00	0.57	0.00	0.00	0.00						0.00
Off-Road	1.60	11.44	7.49	0.01		0.79	0.79		0.79	0.79	0.00	1,205.95		0.14		1,208.94
Total	**1.60**	**11.44**	**7.49**	**0.01**	**0.57**	**0.79**	**1.36**	**0.00**	**0.79**	**0.79**	**0.00**	**1,205.95**		**0.14**		**1,208.94**

3.2 Demolition - 2011

Mitigated Construction Off-Site

	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					
Hauling	0.53	4.16	2.47	0.00	0.60	0.16	0.76	0.02	0.16	0.18		500.74		0.02		501.14
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.04	0.37	0.00	0.08	0.00	0.08	0.00	0.00	0.01		59.43		0.00		59.51
Total	**0.65**	**4.20**	**2.84**	**0.00**	**0.68**	**0.16**	**0.84**	**0.02**	**0.16**	**0.19**		**560.17**		**0.02**		**560.65**

3.3 Parking Lot Demolition - 2011

Unmitigated Construction On-Site

	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					
Fugitive Dust					0.93	0.00	0.93	0.00	0.00	0.00						0.00
Off-Road	1.60	11.44	7.49	0.01		0.79	0.79		0.79	0.79		1,205.95		0.14		1,208.94
Total	**1.60**	**11.44**	**7.49**	**0.01**	**0.93**	**0.79**	**1.72**	**0.00**	**0.79**	**0.79**		**1,205.95**		**0.14**		**1,208.94**

3.3 Parking Lot Demolition - 2011

Unmitigated Construction Off-Site

	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					
Hauling	0.36	2.88	1.71	0.00	0.31	0.11	0.43	0.01	0.11	0.12		347.18		0.01		347.46
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.04	0.37	0.00	0.08	0.00	0.08	0.00	0.00	0.01		59.43		0.00		59.51
Total	**0.48**	**2.92**	**2.08**	**0.00**	**0.39**	**0.11**	**0.51**	**0.01**	**0.11**	**0.13**		**406.61**		**0.01**		**406.97**

Mitigated Construction On-Site

	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					
Fugitive Dust					0.40	0.00	0.40	0.00	0.00	0.00						0.00
Off-Road	1.60	11.44	7.49	0.01		0.79	0.79		0.79	0.79	0.00	1,205.95		0.14		1,208.94
Total	**1.60**	**11.44**	**7.49**	**0.01**	**0.40**	**0.79**	**1.19**	**0.00**	**0.79**	**0.79**	**0.00**	**1,205.95**		**0.14**		**1,208.94**

3.3 Parking Lot Demolition - 2011

Mitigated Construction Off-Site

	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					
Hauling	0.36	2.88	1.71	0.00	0.31	0.11	0.43	0.01	0.11	0.12		347.18		0.01		347.46
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.04	0.37	0.00	0.08	0.00	0.08	0.00	0.00	0.01		59.43		0.00		59.51
Total	**0.48**	**2.92**	**2.08**	**0.00**	**0.39**	**0.11**	**0.51**	**0.01**	**0.11**	**0.13**		**406.61**		**0.01**		**406.97**

3.4 Grading - 2011

Unmitigated Construction On-Site

	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					
Fugitive Dust					1.28	0.00	1.28	0.00	0.00	0.00						0.00
Off-Road	2.16	16.36	9.67	0.02		1.01	1.01		1.01	1.01		1,563.77		0.19		1,567.85
Total	**2.16**	**16.36**	**9.67**	**0.02**	**1.28**	**1.01**	**2.29**	**0.00**	**1.01**	**1.01**		**1,563.77**		**0.19**		**1,567.85**

3.4 Grading - 2011

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.19	0.06	0.60	0.00	0.12	0.00	0.13	0.00	0.00	0.01		95.09		0.01		95.22
Total	**0.19**	**0.06**	**0.60**	**0.00**	**0.12**	**0.00**	**0.13**	**0.00**	**0.00**	**0.01**		**95.09**		**0.01**		**95.22**

Mitigated Construction On-Site

	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					
Fugitive Dust					0.55	0.00	0.55	0.00	0.00	0.00						0.00
Off-Road	2.16	16.36	9.67	0.02		1.01	1.01		1.01	1.01	0.00	1,563.77		0.19		1,567.85
Total	**2.16**	**16.36**	**9.67**	**0.02**	**0.55**	**1.01**	**1.56**	**0.00**	**1.01**	**1.01**	**0.00**	**1,563.77**		**0.19**		**1,567.85**

3.4 Grading - 2011

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.19	0.06	0.60	0.00	0.12	0.00	0.13	0.00	0.00	0.01		95.09		0.01		95.22
Total	**0.19**	**0.06**	**0.60**	**0.00**	**0.12**	**0.00**	**0.13**	**0.00**	**0.00**	**0.01**		**95.09**		**0.01**		**95.22**

3.5 Retention Wall Construction - 2011

Unmitigated Construction On-Site

	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					
Off-Road	1.34	9.82	6.58	0.01		0.58	0.58		0.58	0.58		1,098.02		0.12		1,100.53
Total	**1.34**	**9.82**	**6.58**	**0.01**		**0.58**	**0.58**		**0.58**	**0.58**		**1,098.02**		**0.12**		**1,100.53**

3.5 Retention Wall Construction - 2011

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.30	0.11	0.97	0.00	0.20	0.01	0.21	0.01	0.01	0.01		154.52		0.01		154.73
Total	**0.30**	**0.11**	**0.97**	**0.00**	**0.20**	**0.01**	**0.21**	**0.01**	**0.01**	**0.01**		**154.52**		**0.01**		**154.73**

Mitigated Construction On-Site

	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					
Off-Road	1.34	9.82	6.58	0.01		0.58	0.58		0.58	0.58	0.00	1,098.02		0.12		1,100.53
Total	**1.34**	**9.82**	**6.58**	**0.01**		**0.58**	**0.58**		**0.58**	**0.58**	**0.00**	**1,098.02**		**0.12**		**1,100.53**

3.5 Retention Wall Construction - 2011

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.30	0.11	0.97	0.00	0.20	0.01	0.21	0.01	0.01	0.01		154.52		0.01		154.73
Total	**0.30**	**0.11**	**0.97**	**0.00**	**0.20**	**0.01**	**0.21**	**0.01**	**0.01**	**0.01**		**154.52**		**0.01**		**154.73**

3.6 Parking Construction - 2011

Unmitigated Construction On-Site

	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					
Off-Road	3.07	18.70	11.67	0.02		1.71	1.71		1.71	1.71		1,661.60		0.27		1,667.38
Total	**3.07**	**18.70**	**11.67**	**0.02**		**1.71**	**1.71**		**1.71**	**1.71**		**1,661.60**		**0.27**		**1,667.38**

3.6 Parking Construction - 2011

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.27	2.36	1.60	0.00	0.11	0.08	0.19	0.01	0.08	0.08		319.15		0.01		319.37
Worker	0.70	0.24	2.24	0.00	0.46	0.01	0.47	0.02	0.01	0.03		356.59		0.02		357.06
Total	**0.97**	**2.60**	**3.84**	**0.00**	**0.57**	**0.09**	**0.66**	**0.03**	**0.09**	**0.11**		**675.74**		**0.03**		**676.43**

Mitigated Construction On-Site

	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					
Off-Road	3.07	18.70	11.67	0.02		1.71	1.71		1.71	1.71	0.00	1,661.60		0.27		1,667.38
Total	**3.07**	**18.70**	**11.67**	**0.02**		**1.71**	**1.71**		**1.71**	**1.71**	**0.00**	**1,661.60**		**0.27**		**1,667.38**

3.6 Parking Construction - 2011

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.27	2.36	1.60	0.00	0.11	0.08	0.19	0.01	0.08	0.08		319.15		0.01		319.37
Worker	0.70	0.24	2.24	0.00	0.46	0.01	0.47	0.02	0.01	0.03		356.59		0.02		357.06
Total	**0.97**	**2.60**	**3.84**	**0.00**	**0.57**	**0.09**	**0.66**	**0.03**	**0.09**	**0.11**		**675.74**		**0.03**		**676.43**

3.7 Utilities-Trenching - 2011

Unmitigated Construction On-Site

	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					
Off-Road	1.76	12.50	8.21	0.01		0.88	0.88		0.88	0.88		1,309.22		0.16		1,312.52
Total	**1.76**	**12.50**	**8.21**	**0.01**		**0.88**	**0.88**		**0.88**	**0.88**		**1,309.22**		**0.16**		**1,312.52**

3.7 Utilities-Trenching - 2011

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.04	0.37	0.00	0.08	0.00	0.08	0.00	0.00	0.01		59.43		0.00		59.51
Total	**0.12**	**0.04**	**0.37**	**0.00**	**0.08**	**0.00**	**0.08**	**0.00**	**0.00**	**0.01**		**59.43**		**0.00**		**59.51**

Mitigated Construction On-Site

	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					
Off-Road	1.76	12.50	8.21	0.01		0.88	0.88		0.88	0.88	0.00	1,309.22		0.16		1,312.52
Total	**1.76**	**12.50**	**8.21**	**0.01**		**0.88**	**0.88**		**0.88**	**0.88**	**0.00**	**1,309.22**		**0.16**		**1,312.52**

3.7 Utilities-Trenching - 2011

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.04	0.37	0.00	0.08	0.00	0.08	0.00	0.00	0.01		59.43		0.00		59.51
Total	**0.12**	**0.04**	**0.37**	**0.00**	**0.08**	**0.00**	**0.08**	**0.00**	**0.00**	**0.01**		**59.43**		**0.00**		**59.51**

3.7 Utilities-Trenching - 2012

Unmitigated Construction On-Site

	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					
Off-Road	1.64	11.60	8.17	0.01		0.80	0.80		0.80	0.80		1,309.22		0.15		1,312.28
Total	**1.64**	**11.60**	**8.17**	**0.01**		**0.80**	**0.80**		**0.80**	**0.80**		**1,309.22**		**0.15**		**1,312.28**

3.7 Utilities-Trenching - 2012

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.11	0.04	0.34	0.00	0.08	0.00	0.08	0.00	0.00	0.01		58.14		0.00		58.21
Total	**0.11**	**0.04**	**0.34**	**0.00**	**0.08**	**0.00**	**0.08**	**0.00**	**0.00**	**0.01**		**58.14**		**0.00**		**58.21**

Mitigated Construction On-Site

	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					
Off-Road	1.64	11.60	8.17	0.01		0.80	0.80		0.80	0.80	0.00	1,309.22		0.15		1,312.28
Total	**1.64**	**11.60**	**8.17**	**0.01**		**0.80**	**0.80**		**0.80**	**0.80**	**0.00**	**1,309.22**		**0.15**		**1,312.28**

3.7 Utilities-Trenching - 2012

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.11	0.04	0.34	0.00	0.08	0.00	0.08	0.00	0.00	0.01		58.14		0.00		58.21
Total	**0.11**	**0.04**	**0.34**	**0.00**	**0.08**	**0.00**	**0.08**	**0.00**	**0.00**	**0.01**		**58.14**		**0.00**		**58.21**

3.8 Building Construction - 2011

Unmitigated Construction On-Site

	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					
Off-Road	3.07	18.70	11.67	0.02		1.71	1.71		1.71	1.71		1,661.60		0.27		1,667.38
Total	**3.07**	**18.70**	**11.67**	**0.02**		**1.71**	**1.71**		**1.71**	**1.71**		**1,661.60**		**0.27**		**1,667.38**

3.8 Building Construction - 2011

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.81	7.08	4.81	0.01	0.96	0.23	1.18	0.03	0.23	0.25		957.44		0.03		958.12
Worker	2.09	0.73	6.73	0.01	4.04	0.04	4.08	0.05	0.04	0.09		1,069.77		0.07		1,071.18
Total	**2.90**	**7.81**	**11.54**	**0.02**	**5.00**	**0.27**	**5.26**	**0.08**	**0.27**	**0.34**		**2,027.21**		**0.10**		**2,029.30**

Mitigated Construction On-Site

	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					
Off-Road	3.07	18.70	11.67	0.02		1.71	1.71		1.71	1.71	0.00	1,661.60		0.27		1,667.38
Total	**3.07**	**18.70**	**11.67**	**0.02**		**1.71**	**1.71**		**1.71**	**1.71**	**0.00**	**1,661.60**		**0.27**		**1,667.38**

3.8 Building Construction - 2011

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.81	7.08	4.81	0.01	0.96	0.23	1.18	0.03	0.23	0.25		957.44		0.03		958.12
Worker	2.09	0.73	6.73	0.01	4.04	0.04	4.08	0.05	0.04	0.09		1,069.77		0.07		1,071.18
Total	**2.90**	**7.81**	**11.54**	**0.02**	**5.00**	**0.27**	**5.26**	**0.08**	**0.27**	**0.34**		**2,027.21**		**0.10**		**2,029.30**

3.8 Building Construction - 2012

Unmitigated Construction On-Site

	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					
Off-Road	2.84	17.48	11.56	0.02		1.59	1.59		1.59	1.59		1,661.60		0.25		1,666.95
Total	**2.84**	**17.48**	**11.56**	**0.02**		**1.59**	**1.59**		**1.59**	**1.59**		**1,661.60**		**0.25**		**1,666.95**

3.8 Building Construction - 2012

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.74	6.46	4.43	0.01	0.96	0.21	1.16	0.03	0.21	0.23		960.86		0.03		961.48
Worker	1.97	0.67	6.19	0.01	4.04	0.04	4.08	0.05	0.04	0.09		1,046.55		0.06		1,047.87
Total	**2.71**	**7.13**	**10.62**	**0.02**	**5.00**	**0.25**	**5.24**	**0.08**	**0.25**	**0.32**		**2,007.41**		**0.09**		**2,009.35**

Mitigated Construction On-Site

	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					
Off-Road	2.84	17.48	11.56	0.02		1.59	1.59		1.59	1.59	0.00	1,661.60		0.25		1,666.95
Total	**2.84**	**17.48**	**11.56**	**0.02**		**1.59**	**1.59**		**1.59**	**1.59**	**0.00**	**1,661.60**		**0.25**		**1,666.95**

3.8 Building Construction - 2012

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.74	6.46	4.43	0.01	0.96	0.21	1.16	0.03	0.21	0.23		960.86		0.03		961.48
Worker	1.97	0.67	6.19	0.01	4.04	0.04	4.08	0.05	0.04	0.09		1,046.55		0.06		1,047.87
Total	**2.71**	**7.13**	**10.62**	**0.02**	**5.00**	**0.25**	**5.24**	**0.08**	**0.25**	**0.32**		**2,007.41**		**0.09**		**2,009.35**

3.9 Architectural Coating - 2012

Unmitigated Construction On-Site

	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					
Archit. Coating	37.71					0.00	0.00		0.00	0.00						0.00
Off-Road	0.52	3.16	1.96	0.00		0.29	0.29		0.29	0.29		281.19		0.05		282.18
Total	**38.23**	**3.16**	**1.96**	**0.00**		**0.29**	**0.29**		**0.29**	**0.29**		**281.19**		**0.05**		**282.18**

3.9 Architectural Coating - 2012

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.13	0.04	0.41	0.00	0.09	0.00	0.09	0.00	0.00	0.01		69.77		0.00		69.86
Total	**0.13**	**0.04**	**0.41**	**0.00**	**0.09**	**0.00**	**0.09**	**0.00**	**0.00**	**0.01**		**69.77**		**0.00**		**69.86**

Mitigated Construction On-Site

	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					
Archit. Coating	37.71					0.00	0.00		0.00	0.00						0.00
Off-Road	0.52	3.16	1.96	0.00		0.29	0.29		0.29	0.29	0.00	281.19		0.05		282.18
Total	**38.23**	**3.16**	**1.96**	**0.00**		**0.29**	**0.29**		**0.29**	**0.29**	**0.00**	**281.19**		**0.05**		**282.18**

3.9 Architectural Coating - 2012

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.13	0.04	0.41	0.00	0.09	0.00	0.09	0.00	0.00	0.01		69.77		0.00		69.86
Total	**0.13**	**0.04**	**0.41**	**0.00**	**0.09**	**0.00**	**0.09**	**0.00**	**0.00**	**0.01**		**69.77**		**0.00**		**69.86**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

	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	15.87	12.21	68.42	0.07	16.07	0.39	16.45	0.28	0.39	0.66		7,356.68		0.38		7,364.75
Unmitigated	18.70	14.30	77.42	0.09	20.40	0.47	20.87	0.35	0.47	0.82		9,174.97		0.45		9,184.50
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	216.78	53.76	9.30	219,533	172,906
Parking Structure	0.00	0.00	0.00		
Quality Restaurant	2,297.32	2,297.32	2297.32	2,107,153	1,659,614
Strip Mall	641.75	641.75	641.75	738,957	582,010
Total	3,155.86	2,992.84	2,948.38	3,065,642	2,414,531

4.3 Trip Type Information

	Miles			Trip %		
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
Medical Office Building	8.90	13.30	7.40	29.60	51.40	19.00
Parking Structure	8.90	13.30	7.40	0.00	100.00	0.00

	Miles			Trip %		
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
Quality Restaurant	8.90	13.30	7.40	12.00	69.00	19.00
Strip Mall	8.90	13.30	7.40	16.60	64.40	19.00

5.0 Energy Detail

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	0.10	0.92	0.77	0.01		0.00	0.07		0.00	0.07		1,098.52		0.02	0.02	1,105.20
NaturalGas Unmitigated	0.10	0.92	0.77	0.01		0.00	0.07		0.00	0.07		1,098.52		0.02	0.02	1,105.20
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	lb/day										lb/day					
Medical Office Building	78.8219	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00		9.27		0.00	0.00	9.33
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Quality Restaurant	9217.88	0.10	0.90	0.76	0.01		0.00	0.07		0.00	0.07		1,084.46		0.02	0.02	1,091.06
Strip Mall	40.6799	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		4.79		0.00	0.00	4.81
Total		**0.10**	**0.91**	**0.77**	**0.01**		**0.00**	**0.07**		**0.00**	**0.07**		**1,098.52**		**0.02**	**0.02**	**1,105.20**

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	lb/day										lb/day					
Medical Office Building	0.0788219	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00		9.27		0.00	0.00	9.33
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Quality Restaurant	9.21788	0.10	0.90	0.76	0.01		0.00	0.07		0.00	0.07		1,084.46		0.02	0.02	1,091.06
Strip Mall	0.0406799	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		4.79		0.00	0.00	4.81
Total		**0.10**	**0.91**	**0.77**	**0.01**		**0.00**	**0.07**		**0.00**	**0.07**		**1,098.52**		**0.02**	**0.02**	**1,105.20**

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	1.92	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	1.92	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.46					0.00	0.00		0.00	0.00						0.00
Consumer Products	1.45					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**1.91**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

6.2 Area by SubCategory

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	0.46					0.00	0.00		0.00	0.00						0.00
Consumer Products	1.45					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**1.91**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Mariner's Pointe

Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Medical Office Building	3	1000sqft
Parking Structure	50.27	1000sqft
Quality Restaurant	12.77	1000sqft
Strip Mall	7.24	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Southern California Edison
Climate Zone	8	**Precipitation Freq (Days)**	30		

1.3 User Entered Comments

Project Characteristics -

Land Use - Based on information provided project applicant.

Construction Phase - Based on construction information provided and verified by Project Applicant

Off-road Equipment - Based on list verified by project applicant.

Off-road Equipment - Based on list verified by project applicant.

Off-road Equipment - As verfied by project applicant.

Off-road Equipment - Based on list verified by project applicant.

Off-road Equipment - Based on list verified by project applicant.

Off-road Equipment - Verified by project applicant.

Off-road Equipment - Based on list verified by project applicant.

Demolition -

Construction Off-road Equipment Mitigation -

Water Mitigation -

Vehicle Trips - Consistent with Traffic Study

Off-road Equipment -

Mobile Land Use Mitigation -

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	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
Year	tons/yr										MT/yr					
2011	0.22	1.24	0.92	0.00	0.05	0.10	0.15	0.00	0.10	0.10	0.00	130.03	130.03	0.02	0.00	130.36
2012	1.30	2.20	1.94	0.00	0.33	0.17	0.50	0.01	0.17	0.17	0.00	290.56	290.56	0.03	0.00	291.16
Total	**1.52**	**3.44**	**2.86**	**0.00**	**0.38**	**0.27**	**0.65**	**0.01**	**0.27**	**0.27**	**0.00**	**420.59**	**420.59**	**0.05**	**0.00**	**421.52**

Mitigated Construction

	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
Year	tons/yr										MT/yr					
2011	0.22	1.24	0.92	0.00	0.05	0.10	0.15	0.00	0.10	0.10	0.00	130.03	130.03	0.02	0.00	130.36
2012	1.30	2.20	1.94	0.00	0.33	0.17	0.50	0.01	0.17	0.17	0.00	290.56	290.56	0.03	0.00	291.16
Total	**1.52**	**3.44**	**2.86**	**0.00**	**0.38**	**0.27**	**0.65**	**0.01**	**0.27**	**0.27**	**0.00**	**420.59**	**420.59**	**0.05**	**0.00**	**421.52**

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	0.35	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.02	0.17	0.14	0.00		0.00	0.01		0.00	0.01	0.00	368.58	368.58	0.01	0.01	370.86
Mobile	3.01	2.39	13.90	0.02	3.28	0.08	3.36	0.06	0.08	0.15	0.00	1,508.84	1,508.84	0.07	0.00	1,510.38
Waste						0.00	0.00		0.00	0.00	10.48	0.00	10.48	0.62	0.00	23.50
Water						0.00	0.00		0.00	0.00	0.00	20.28	20.28	0.15	0.00	24.60
Total	**3.38**	**2.56**	**14.04**	**0.02**	**3.28**	**0.08**	**3.37**	**0.06**	**0.08**	**0.16**	**10.48**	**1,897.70**	**1,908.18**	**0.85**	**0.01**	**1,929.34**

2.2 Overall Operational

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	0.35	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.02	0.17	0.14	0.00		0.00	0.01		0.00	0.01	0.00	368.58	368.58	0.01	0.01	370.86
Mobile	2.56	2.06	12.26	0.01	2.58	0.07	2.65	0.05	0.07	0.12	0.00	1,209.75	1,209.75	0.06	0.00	1,211.06
Waste						0.00	0.00		0.00	0.00	10.48	0.00	10.48	0.62	0.00	23.50
Water						0.00	0.00		0.00	0.00	0.00	17.32	17.32	0.12	0.00	20.97
Total	**2.93**	**2.23**	**12.40**	**0.01**	**2.58**	**0.07**	**2.66**	**0.05**	**0.07**	**0.13**	**10.48**	**1,595.65**	**1,606.13**	**0.81**	**0.01**	**1,626.39**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2011

Unmitigated Construction On-Site

	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					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00	0.00	2.19	2.19	0.00	0.00	2.19
Total	**0.00**	**0.02**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.19**	**2.19**	**0.00**	**0.00**	**2.19**

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.91	0.91	0.00	0.00	0.91
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.11	0.00	0.00	0.11
Total	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.02**	**1.02**	**0.00**	**0.00**	**1.02**

3.2 Demolition - 2011

Mitigated Construction On-Site

	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					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00	0.00	2.19	2.19	0.00	0.00	2.19
Total	**0.00**	**0.02**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.19**	**2.19**	**0.00**	**0.00**	**2.19**

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.91	0.91	0.00	0.00	0.91
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.11	0.00	0.00	0.11
Total	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.02**	**1.02**	**0.00**	**0.00**	**1.02**

3.3 Parking Lot Demolition - 2011

Unmitigated Construction On-Site

	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					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00	0.00	1.64	1.64	0.00	0.00	1.64
Total	**0.00**	**0.02**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.64**	**1.64**	**0.00**	**0.00**	**1.64**

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.47	0.00	0.00	0.47
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.00	0.00	0.08
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.55**	**0.55**	**0.00**	**0.00**	**0.55**

3.3 Parking Lot Demolition - 2011

Mitigated Construction On-Site

	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					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00	0.00	1.64	1.64	0.00	0.00	1.64
Total	**0.00**	**0.02**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.64**	**1.64**	**0.00**	**0.00**	**1.64**

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.47	0.00	0.00	0.47
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.00	0.00	0.08
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.55**	**0.55**	**0.00**	**0.00**	**0.55**

3.4 Grading - 2011

Unmitigated Construction On-Site

	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					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00	0.00	2.13	2.13	0.00	0.00	2.13
Total	**0.00**	**0.02**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.13**	**2.13**	**0.00**	**0.00**	**2.13**

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.13	0.00	0.00	0.13
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.13**	**0.13**	**0.00**	**0.00**	**0.13**

3.4 Grading - 2011

Mitigated Construction On-Site

	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					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00	0.00	2.13	2.13	0.00	0.00	2.13
Total	**0.00**	**0.02**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.13**	**2.13**	**0.00**	**0.00**	**2.13**

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.13	0.00	0.00	0.13
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.13**	**0.13**	**0.00**	**0.00**	**0.13**

3.5 Retention Wall Construction - 2011

Unmitigated Construction On-Site

	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					
Off-Road	0.02	0.11	0.08	0.00		0.01	0.01		0.01	0.01	0.00	11.45	11.45	0.00	0.00	11.48
Total	**0.02**	**0.11**	**0.08**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**11.45**	**11.45**	**0.00**	**0.00**	**11.48**

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.65	1.65	0.00	0.00	1.65
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.65**	**1.65**	**0.00**	**0.00**	**1.65**

3.5 Retention Wall Construction - 2011

Mitigated Construction On-Site

	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					
Off-Road	0.02	0.11	0.08	0.00		0.01	0.01		0.01	0.01	0.00	11.45	11.45	0.00	0.00	11.48
Total	**0.02**	**0.11**	**0.08**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**11.45**	**11.45**	**0.00**	**0.00**	**11.48**

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.65	1.65	0.00	0.00	1.65
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.65**	**1.65**	**0.00**	**0.00**	**1.65**

3.6 Parking Construction - 2011

Unmitigated Construction On-Site

	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					
Off-Road	0.10	0.62	0.38	0.00		0.06	0.06		0.06	0.06	0.00	49.73	49.73	0.01	0.00	49.90
Total	**0.10**	**0.62**	**0.38**	**0.00**		**0.06**	**0.06**		**0.06**	**0.06**	**0.00**	**49.73**	**49.73**	**0.01**	**0.00**	**49.90**

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.07	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	9.58	9.58	0.00	0.00	9.59
Worker	0.02	0.01	0.08	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	10.91	10.91	0.00	0.00	10.93
Total	**0.03**	**0.08**	**0.13**	**0.00**	**0.01**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**20.49**	**20.49**	**0.00**	**0.00**	**20.52**

3.6 Parking Construction - 2011

Mitigated Construction On-Site

	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					
Off-Road	0.10	0.62	0.38	0.00		0.06	0.06		0.06	0.06	0.00	49.73	49.73	0.01	0.00	49.90
Total	**0.10**	**0.62**	**0.38**	**0.00**		**0.06**	**0.06**		**0.06**	**0.06**	**0.00**	**49.73**	**49.73**	**0.01**	**0.00**	**49.90**

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.07	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	9.58	9.58	0.00	0.00	9.59
Worker	0.02	0.01	0.08	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	10.91	10.91	0.00	0.00	10.93
Total	**0.03**	**0.08**	**0.13**	**0.00**	**0.01**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**20.49**	**20.49**	**0.00**	**0.00**	**20.52**

3.7 Utilities-Trenching - 2011

Unmitigated Construction On-Site

	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					
Off-Road	0.03	0.21	0.14	0.00		0.01	0.01		0.01	0.01	0.00	19.59	19.59	0.00	0.00	19.64
Total	**0.03**	**0.21**	**0.14**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**19.59**	**19.59**	**0.00**	**0.00**	**19.64**

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.91	0.91	0.00	0.00	0.91
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.91**	**0.91**	**0.00**	**0.00**	**0.91**

3.7 Utilities-Trenching - 2011

Mitigated Construction On-Site

	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					
Off-Road	0.03	0.21	0.14	0.00		0.01	0.01		0.01	0.01	0.00	19.59	19.59	0.00	0.00	19.64
Total	**0.03**	**0.21**	**0.14**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**19.59**	**19.59**	**0.00**	**0.00**	**19.64**

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.91	0.91	0.00	0.00	0.91
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.91**	**0.91**	**0.00**	**0.00**	**0.91**

3.7 Utilities-Trenching - 2012

Unmitigated Construction On-Site

	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					
Off-Road	0.05	0.38	0.27	0.00		0.03	0.03		0.03	0.03	0.00	38.59	38.59	0.00	0.00	38.68
Total	**0.05**	**0.38**	**0.27**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**38.59**	**38.59**	**0.00**	**0.00**	**38.68**

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.75	1.75	0.00	0.00	1.75
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.75**	**1.75**	**0.00**	**0.00**	**1.75**

3.7 Utilities-Trenching - 2012

Mitigated Construction On-Site

	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					
Off-Road	0.05	0.38	0.27	0.00		0.03	0.03		0.03	0.03	0.00	38.59	38.59	0.00	0.00	38.68
Total	**0.05**	**0.38**	**0.27**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**38.59**	**38.59**	**0.00**	**0.00**	**38.68**

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.75	1.75	0.00	0.00	1.75
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.75**	**1.75**	**0.00**	**0.00**	**1.75**

3.8 Building Construction - 2011

Unmitigated Construction On-Site

	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					
Off-Road	0.02	0.10	0.06	0.00		0.01	0.01		0.01	0.01	0.00	8.29	8.29	0.00	0.00	8.32
Total	**0.02**	**0.10**	**0.06**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**8.29**	**8.29**	**0.00**	**0.00**	**8.32**

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.04	0.03	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	4.79	4.79	0.00	0.00	4.80
Worker	0.01	0.00	0.04	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	5.46	5.46	0.00	0.00	5.46
Total	**0.01**	**0.04**	**0.07**	**0.00**	**0.02**	**0.00**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**10.25**	**10.25**	**0.00**	**0.00**	**10.26**

3.8 Building Construction - 2011

Mitigated Construction On-Site

	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					
Off-Road	0.02	0.10	0.06	0.00		0.01	0.01		0.01	0.01	0.00	8.29	8.29	0.00	0.00	8.32
Total	**0.02**	**0.10**	**0.06**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**8.29**	**8.29**	**0.00**	**0.00**	**8.32**

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.04	0.03	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	4.79	4.79	0.00	0.00	4.80
Worker	0.01	0.00	0.04	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	5.46	5.46	0.00	0.00	5.46
Total	**0.01**	**0.04**	**0.07**	**0.00**	**0.02**	**0.00**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**10.25**	**10.25**	**0.00**	**0.00**	**10.26**

3.8 Building Construction - 2012

Unmitigated Construction On-Site

	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					
Off-Road	0.21	1.27	0.84	0.00		0.11	0.11		0.11	0.11	0.00	109.26	109.26	0.02	0.00	109.61
Total	**0.21**	**1.27**	**0.84**	**0.00**		**0.11**	**0.11**		**0.11**	**0.11**	**0.00**	**109.26**	**109.26**	**0.02**	**0.00**	**109.61**

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.05	0.44	0.31	0.00	0.06	0.01	0.08	0.00	0.01	0.02	0.00	63.40	63.40	0.00	0.00	63.44
Worker	0.13	0.04	0.46	0.00	0.26	0.00	0.27	0.00	0.00	0.01	0.00	70.37	70.37	0.00	0.00	70.46
Total	**0.18**	**0.48**	**0.77**	**0.00**	**0.32**	**0.01**	**0.35**	**0.00**	**0.01**	**0.03**	**0.00**	**133.77**	**133.77**	**0.00**	**0.00**	**133.90**

3.8 Building Construction - 2012

Mitigated Construction On-Site

	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					
Off-Road	0.21	1.27	0.84	0.00		0.11	0.11		0.11	0.11	0.00	109.26	109.26	0.02	0.00	109.61
Total	**0.21**	**1.27**	**0.84**	**0.00**		**0.11**	**0.11**		**0.11**	**0.11**	**0.00**	**109.26**	**109.26**	**0.02**	**0.00**	**109.61**

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.05	0.44	0.31	0.00	0.06	0.01	0.08	0.00	0.01	0.02	0.00	63.40	63.40	0.00	0.00	63.44
Worker	0.13	0.04	0.46	0.00	0.26	0.00	0.27	0.00	0.00	0.01	0.00	70.37	70.37	0.00	0.00	70.46
Total	**0.18**	**0.48**	**0.77**	**0.00**	**0.32**	**0.01**	**0.35**	**0.00**	**0.01**	**0.03**	**0.00**	**133.77**	**133.77**	**0.00**	**0.00**	**133.90**

3.9 Architectural Coating - 2012

Unmitigated Construction On-Site

	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					
Archit. Coating	0.85					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.07	0.04	0.00		0.01	0.01		0.01	0.01	0.00	5.74	5.74	0.00	0.00	5.76
Total	**0.86**	**0.07**	**0.04**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**5.74**	**5.74**	**0.00**	**0.00**	**5.76**

Unmitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	1.46	0.00	0.00	1.46
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.46**	**1.46**	**0.00**	**0.00**	**1.46**

3.9 Architectural Coating - 2012

Mitigated Construction On-Site

	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					
Archit. Coating	0.85					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.07	0.04	0.00		0.01	0.01		0.01	0.01	0.00	5.74	5.74	0.00	0.00	5.76
Total	**0.86**	**0.07**	**0.04**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**5.74**	**5.74**	**0.00**	**0.00**	**5.76**

Mitigated Construction Off-Site

	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					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	1.46	0.00	0.00	1.46
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.46**	**1.46**	**0.00**	**0.00**	**1.46**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

	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	2.56	2.06	12.26	0.01	2.58	0.07	2.65	0.05	0.07	0.12	0.00	1,209.75	1,209.75	0.06	0.00	1,211.06
Unmitigated	3.01	2.39	13.90	0.02	3.28	0.08	3.36	0.06	0.08	0.15	0.00	1,508.84	1,508.84	0.07	0.00	1,510.38
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	216.78	53.76	9.30	219,533	172,906
Parking Structure	0.00	0.00	0.00		
Quality Restaurant	2,297.32	2,297.32	2297.32	2,107,153	1,659,614
Strip Mall	641.75	641.75	641.75	738,957	582,010
Total	3,155.86	2,992.84	2,948.38	3,065,642	2,414,531

4.3 Trip Type Information

	Miles			Trip %		
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
Medical Office Building	8.90	13.30	7.40	29.60	51.40	19.00
Parking Structure	8.90	13.30	7.40	0.00	100.00	0.00
Quality Restaurant	8.90	13.30	7.40	12.00	69.00	19.00
Strip Mall	8.90	13.30	7.40	16.60	64.40	19.00

5.0 Energy Detail

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						0.00	0.00		0.00	0.00	0.00	186.71	186.71	0.01	0.00	187.88
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	186.71	186.71	0.01	0.00	187.88
NaturalGas Mitigated	0.02	0.17	0.14	0.00		0.00	0.01		0.00	0.01	0.00	181.87	181.87	0.00	0.00	182.98
NaturalGas Unmitigated	0.02	0.17	0.14	0.00		0.00	0.01		0.00	0.01	0.00	181.87	181.87	0.00	0.00	182.98
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	tons/yr										MT/yr					
Medical Office Building	28770	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	1.54	1.54	0.00	0.00	1.54
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Quality Restaurant	3.36453e+006	0.02	0.16	0.14	0.00		0.00	0.01		0.00	0.01	0.00	179.54	179.54	0.00	0.00	180.64
Strip Mall	14848.1	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.79	0.79	0.00	0.00	0.80
Total		**0.02**	**0.16**	**0.14**	**0.00**		**0.00**	**0.01**		**0.00**	**0.01**	**0.00**	**181.87**	**181.87**	**0.00**	**0.00**	**182.98**

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	tons/yr										MT/yr					
Medical Office Building	28770	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	1.54	1.54	0.00	0.00	1.54
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Quality Restaurant	3.36453e+006	0.02	0.16	0.14	0.00		0.00	0.01		0.00	0.01	0.00	179.54	179.54	0.00	0.00	180.64
Strip Mall	14848.1	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.79	0.79	0.00	0.00	0.80
Total		**0.02**	**0.16**	**0.14**	**0.00**		**0.00**	**0.01**		**0.00**	**0.01**	**0.00**	**181.87**	**181.87**	**0.00**	**0.00**	**182.98**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Medical Office Building	46860					13.63	0.00	0.00	13.72
Parking Structure	0					0.00	0.00	0.00	0.00
Quality Restaurant	502323					146.11	0.01	0.00	147.03
Strip Mall	92710.4					26.97	0.00	0.00	27.14
Total						**186.71**	**0.01**	**0.00**	**187.89**

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Medical Office Building	46860					13.63	0.00	0.00	13.72
Parking Structure	0					0.00	0.00	0.00	0.00
Quality Restaurant	502323					146.11	0.01	0.00	147.03
Strip Mall	92710.4					26.97	0.00	0.00	27.14
Total						**186.71**	**0.01**	**0.00**	**187.89**

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	0.35	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	0.35	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.08					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.26					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.34**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

6.2 Area by SubCategory

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	0.08					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.26					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.34**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Use Water Efficient Irrigation System

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					17.32	0.12	0.00	20.97
Unmitigated					20.28	0.15	0.00	24.60
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Medical Office Building	0.376442 / 0.0717032					1.66	0.01	0.00	2.00
Parking Structure	0 / 0					0.00	0.00	0.00	0.00
Quality Restaurant	3.87613 / 0.247412					15.52	0.12	0.00	19.01
Strip Mall	0.536285 / 0.328691					3.10	0.02	0.00	3.59
Total						**20.28**	**0.15**	**0.00**	**24.60**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Medical Office Building	0.317717 / 0.0673293					1.42	0.01	0.00	1.71
Parking Structure	0 / 0					0.00	0.00	0.00	0.00
Quality Restaurant	3.27145 / 0.23232					13.18	0.10	0.00	16.12
Strip Mall	0.452625 / 0.308641					2.72	0.01	0.00	3.13
Total						**17.32**	**0.12**	**0.00**	**20.96**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					10.48	0.62	0.00	23.50
Unmitigated					10.48	0.62	0.00	23.50
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Medical Office Building	32.4					6.58	0.39	0.00	14.74
Parking Structure	0					0.00	0.00	0.00	0.00
Quality Restaurant	11.65					2.36	0.14	0.00	5.30
Strip Mall	7.6					1.54	0.09	0.00	3.46
Total						**10.48**	**0.62**	**0.00**	**23.50**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Medical Office Building	32.4					6.58	0.39	0.00	14.74
Parking Structure	0					0.00	0.00	0.00	0.00
Quality Restaurant	11.65					2.36	0.14	0.00	5.30
Strip Mall	7.6					1.54	0.09	0.00	3.46
Total						**10.48**	**0.62**	**0.00**	**23.50**

9.0 Vegetation

SCE powerlines

Orange County, Winter

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Southern California Edison
Climate Zone	8	**Precipitation Freq (Days)**	30		

1.3 User Entered Comments

Project Characteristics -

Construction Phase - Based on SCE estimation

Off-road Equipment - Based on discussion SCE. Crane is used in place of utility truck with boom and clamp for removal of the three power poles.

Off-road Equipment -

Construction Off-road Equipment Mitigation -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	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
Year	lb/day										lb/day					
2011	1.60	13.42	5.48	0.01	0.07	0.72	0.80	0.00	0.72	0.72	0.00	1,308.72	0.00	0.14	0.00	1,311.72
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	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
Year	lb/day										lb/day					
2011	1.60	13.42	5.48	0.01	0.07	0.72	0.80	0.00	0.72	0.72	0.00	1,308.72	0.00	0.14	0.00	1,311.72
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.00					0.00	0.00		0.00	0.00						0.00
Total	**0.00**					**0.00**	**0.00**		**0.00**	**0.00**						**0.00**

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	0.00					0.00	0.00		0.00	0.00						0.00
Total	**0.00**					**0.00**	**0.00**		**0.00**	**0.00**						**0.00**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 SCE Trenching - 2011

Unmitigated Construction On-Site

	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					
Off-Road	1.60	13.42	5.48	0.01		0.72	0.72		0.72	0.72		1,308.72		0.14		1,311.72
Total	**1.60**	**13.42**	**5.48**	**0.01**		**0.72**	**0.72**		**0.72**	**0.72**		**1,308.72**		**0.14**		**1,311.72**

Unmitigated Construction Off-Site

	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					
Hauling					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Vendor					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker					0.07	0.00	0.07	0.00	0.00	0.00						0.00
Total					**0.07**	**0.00**	**0.07**	**0.00**	**0.00**	**0.00**						**0.00**

3.2 SCE Trenching - 2011

Mitigated Construction On-Site

	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					
Off-Road	1.60	13.42	5.48	0.01		0.72	0.72		0.72	0.72	0.00	1,308.72		0.14		1,311.72
Total	**1.60**	**13.42**	**5.48**	**0.01**		**0.72**	**0.72**		**0.72**	**0.72**	**0.00**	**1,308.72**		**0.14**		**1,311.72**

Mitigated Construction Off-Site

	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					
Hauling					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Vendor					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker					0.07	0.00	0.07	0.00	0.00	0.00						0.00
Total					**0.07**	**0.00**	**0.07**	**0.00**	**0.00**	**0.00**						**0.00**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %		
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

5.0 Energy Detail

5.1 Mitigation Measures Energy

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	0.00					0.00	0.00		0.00	0.00						0.00
Unmitigated	0.00					0.00	0.00		0.00	0.00						0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Total	**0.00**					**0.00**	**0.00**		**0.00**	**0.00**						**0.00**

6.2 Area by SubCategory

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	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Total	**0.00**					**0.00**	**0.00**		**0.00**	**0.00**						**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

SCE powerlines

Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Southern California Edison
Climate Zone	8	**Precipitation Freq (Days)**	30		

1.3 User Entered Comments

Project Characteristics -

Construction Phase - Based on SCE estimation

Off-road Equipment - Based on discussion SCE. Crane is used in place of utility truck with boom and clamp for removal of the three power poles.

Off-road Equipment -

Construction Off-road Equipment Mitigation -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	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
Year	lb/day										lb/day					
2011	1.60	13.42	5.48	0.01	0.07	0.72	0.80	0.00	0.72	0.72	0.00	1,308.72	0.00	0.14	0.00	1,311.72
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	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
Year	lb/day										lb/day					
2011	1.60	13.42	5.48	0.01	0.07	0.72	0.80	0.00	0.72	0.72	0.00	1,308.72	0.00	0.14	0.00	1,311.72
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.00					0.00	0.00		0.00	0.00						0.00
Total	**0.00**					**0.00**	**0.00**		**0.00**	**0.00**						**0.00**

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	0.00					0.00	0.00		0.00	0.00						0.00
Total	**0.00**					**0.00**	**0.00**		**0.00**	**0.00**						**0.00**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 SCE Trenching - 2011

Unmitigated Construction On-Site

	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					
Off-Road	1.60	13.42	5.48	0.01		0.72	0.72		0.72	0.72		1,308.72		0.14		1,311.72
Total	**1.60**	**13.42**	**5.48**	**0.01**		**0.72**	**0.72**		**0.72**	**0.72**		**1,308.72**		**0.14**		**1,311.72**

Unmitigated Construction Off-Site

	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					
Hauling					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Vendor					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker					0.07	0.00	0.07	0.00	0.00	0.00						0.00
Total					**0.07**	**0.00**	**0.07**	**0.00**	**0.00**	**0.00**						**0.00**

3.2 SCE Trenching - 2011

Mitigated Construction On-Site

	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					
Off-Road	1.60	13.42	5.48	0.01		0.72	0.72		0.72	0.72	0.00	1,308.72		0.14		1,311.72
Total	**1.60**	**13.42**	**5.48**	**0.01**		**0.72**	**0.72**		**0.72**	**0.72**	**0.00**	**1,308.72**		**0.14**		**1,311.72**

Mitigated Construction Off-Site

	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					
Hauling					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Vendor					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker					0.07	0.00	0.07	0.00	0.00	0.00						0.00
Total					**0.07**	**0.00**	**0.07**	**0.00**	**0.00**	**0.00**						**0.00**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %		
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

5.0 Energy Detail

5.1 Mitigation Measures Energy

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	0.00					0.00	0.00		0.00	0.00						0.00
Unmitigated	0.00					0.00	0.00		0.00	0.00						0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Total	**0.00**					**0.00**	**0.00**		**0.00**	**0.00**						**0.00**

6.2 Area by SubCategory

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	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Total	**0.00**					**0.00**	**0.00**		**0.00**	**0.00**						**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

SCE powerlines

Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Southern California Edison
Climate Zone	8	**Precipitation Freq (Days)**	30		

1.3 User Entered Comments

Project Characteristics -

Construction Phase - Based on SCE estimation

Off-road Equipment - Based on discussion SCE. Crane is used in place of utility truck with boom and clamp for removal of the three power poles.

Off-road Equipment -

Construction Off-road Equipment Mitigation -

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	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
Year	tons/yr										MT/yr					
2011	0.01	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.53	6.53	0.00	0.00	6.54
Total	**0.01**	**0.07**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**6.53**	**6.53**	**0.00**	**0.00**	**6.54**

Mitigated Construction

	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
Year	tons/yr										MT/yr					
2011	0.01	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.53	6.53	0.00	0.00	6.54
Total	**0.01**	**0.07**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**6.53**	**6.53**	**0.00**	**0.00**	**6.54**

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	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**					**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**					**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 SCE Trenching - 2011

Unmitigated Construction On-Site

	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					
Off-Road	0.01	0.07	0.03	0.00		0.00	0.00		0.00	0.00	0.00	6.53	6.53	0.00	0.00	6.54
Total	**0.01**	**0.07**	**0.03**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**6.53**	**6.53**	**0.00**	**0.00**	**6.54**

Unmitigated Construction Off-Site

	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					
Hauling					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total					**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.2 SCE Trenching - 2011

Mitigated Construction On-Site

	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					
Off-Road	0.01	0.07	0.03	0.00		0.00	0.00		0.00	0.00	0.00	6.53	6.53	0.00	0.00	6.54
Total	**0.01**	**0.07**	**0.03**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**6.53**	**6.53**	**0.00**	**0.00**	**6.54**

Mitigated Construction Off-Site

	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					
Hauling					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total					**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %		
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

5.0 Energy Detail

5.1 Mitigation Measures Energy

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	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**					**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

6.2 Area by SubCategory

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	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**					**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Construction Localized Significance Thresholds - Los Alisos Apartments

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)
18	0.76	25	82

Source Receptor	**North Coastal Orange County**
Distance (meters)	25
NOx	**92**
CO	**647**
PM10	**3.9977**
PM2.5	**2.9995**

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	92	93	108	140	219
	1	92	93	108	140	219
		92	93	108	140	219
CO	1	647	738	1090	2096	6841
	1	647	738	1090	2096	6841
		647	738	1090	2096	6841
PM10	1	4	13	27	54	135
	1	4	13	27	54	135
		4	13	27	54	135
PM2.5	1	3	5	9	22	76
	1	3	5	9	22	76
		3	5	9	22	76

North Coastal Orange County

0.76 Acres

	25	**50**	**100**	**200**	**500**
NOx	92	93	108	140	219
CO	647	738	1090	2096	6841
PM10	4	13	27	54	135
PM2.5	3	5	9	22	76

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
18	1	18	1

Distance Increment Below

25

Distance Increment Above

25

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Operation Localized Significance Thresholds

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)
18	0.76	25	82

Source Receptor	**North Coastal Orange County**
Distance (meters)	25
NOx	**92**
CO	**647**
PM10	**1**
PM2.5	**1**

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	92	93	108	140	219
	1	92	93	108	140	219
		92	93	108	140	219
CO	1	647	738	1090	2096	6841
	1	647	738	1090	2096	6841
		647	738	1090	2096	6841
PM10	1	1	4	7	13	33
	1	1	4	7	13	33
		1	4	7	13	33
PM2.5	1	1	2	3	6	19
	1	1	2	3	6	19
		1	2	3	6	19

North Coastal Orange County

0.76 Acres

	25	**50**	**100**	**200**	**500**
NOx	92	93	108	140	219
CO	647	738	1090	2096	6841
PM10	1	4	7	13	33
PM2.5	1	2	3	6	19

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
18	1	18	1
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2010 - Table C-1. 2006 – 2008

Appendix C.
Traffic Impact Analysis

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MARINER'S POINTE
TRAFFIC IMPACT ANALYSIS

Prepared for

CITY OF NEWPORT BEACH

Prepared by

RBF
CONSULTING

14725 ALTON PARKWAY, IRVINE, CALIFORNIA 92618-2027
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February 17, 2011

JN 10-107807

TABLE OF CONTENTS

LIST OF TABLES

LIST OF EXHIBITS

EXECUTIVE SUMMARY

This study analyzes the forecast traffic conditions associated with the proposed Mariner's Pointe Project in the City of Newport Beach. The proposed project site is located at the northwest corner of the West Coast Highway (SR-1)/Dover Drive intersection. The project applicant proposes to construct a 23,015 square foot commercial center that includes a 7,293 square foot specialty retail component, a 12,722 square foot quality restaurant component, and a 3,000 square foot medical office component. The proposed project includes a three-story parking structure that will provide both self parking and valet parking. Project site access is planned via one right-in/right-out driveway and one right-turn out only driveway on West Coast Highway (SR-1).

The proposed project is expected to open in 2012; therefore, in accordance with the City of Newport Beach Traffic Phasing Ordinance (TPO), traffic conditions are measured during forecast year 2013 conditions.

The proposed project is forecast to generate approximately 1,292 net new daily trips, which includes approximately 16 net new a.m. peak hour trips and approximately 70 net new p.m. peak hour trips as analyzed in the TPO analysis. The proposed project is forecast to generate approximately 1,533 daily trips, which includes approximately 48 a.m. peak hour trips and approximately 84 p.m. peak hour trips as analyzed in the cumulative analysis.

Based on City of Newport Beach established thresholds of significance, the addition of project-generated trips is forecast to result in no significant TPO impacts at the study intersections for forecast year 2013 with project conditions.

Also, based on City established thresholds of significance, the addition of project-generated trips to the study intersections is forecast to result in no significant impacts for forecast existing plus project conditions or forecast cumulative with project conditions.

No traffic mitigation measures are required for the proposed project since no significant traffic impacts are forecast to occur based on agency thresholds of significance.

INTRODUCTION

This study analyzes the forecast traffic conditions associated with the proposed Mariner's Pointe Project in the City of Newport Beach. The proposed project site is located at the northwest corner of the West Coast Highway (SR-1)/Dover Drive intersection. The project applicant proposes to construct a 23,015 square foot commercial center that includes a 7,293 square foot specialty retail component, a 12,722 square foot quality restaurant component, and a 3,000 square foot medical office component. The proposed project includes a three-story parking structure that will provide both self parking and valet parking. Project site access is planned via one right-in/right-out driveway and one right-turn out only driveway on West Coast Highway (SR-1).

The proposed project is expected to open in 2012; therefore, in accordance with the City of Newport Beach Traffic Phasing Ordinance (TPO), traffic conditions are measured during forecast year 2013 conditions.

Exhibit 1 shows the regional project location. Exhibit 2 shows the project site location.

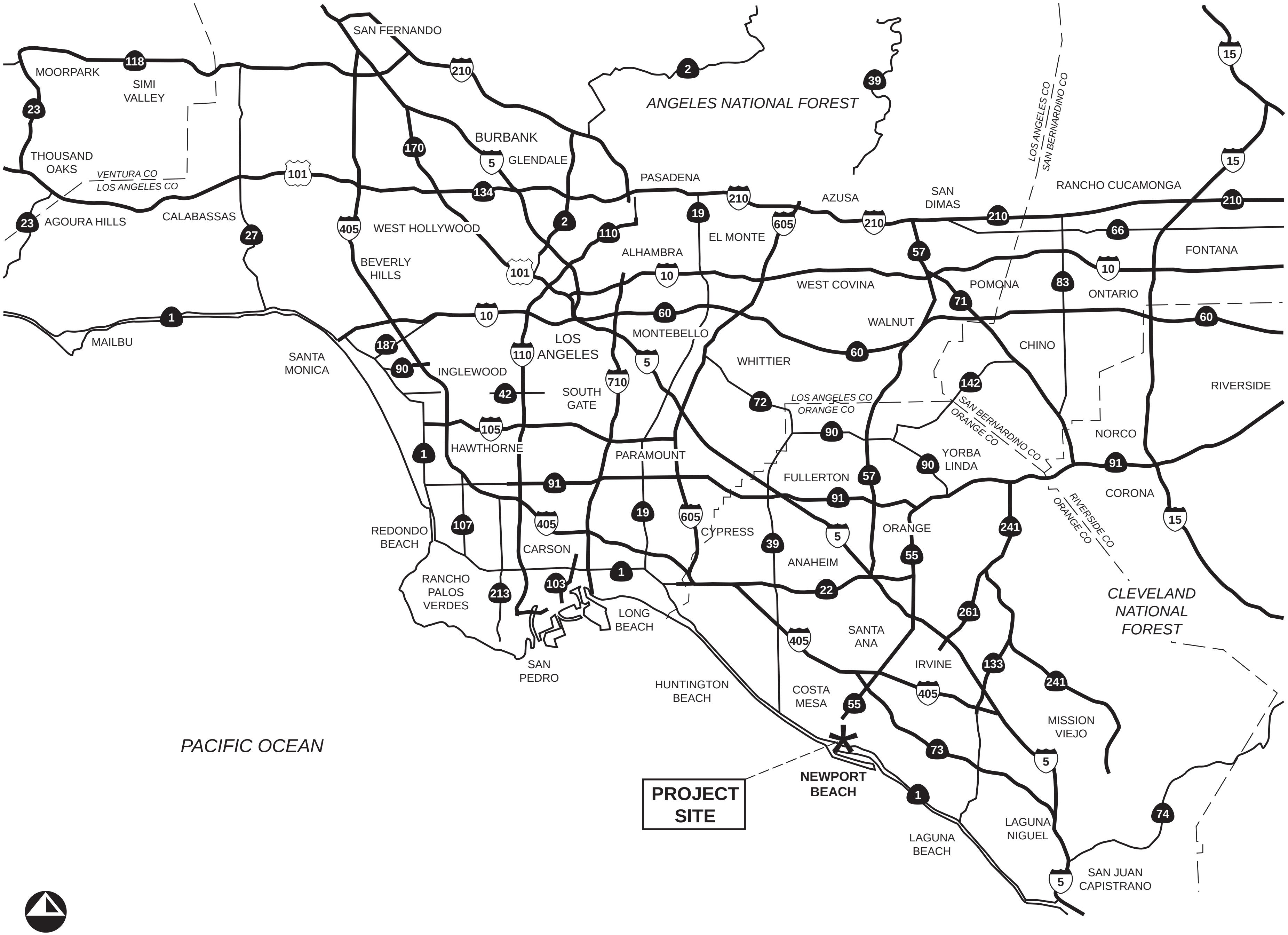
Study Area

City of Newport Beach staff identified the following twelve signalized intersections for analysis in this study:

1. Newport Boulevard (SR-55) Southbound Off-Ramp/West Coast Highway (SR-1);
2. Riverside Avenue/West Coast Highway (SR-1);
3. Tustin Avenue/West Coast Highway (SR-1);
4. Balboa Bay Club Driveway/West Coast Highway (SR-1);
5. Irvine Avenue/Seventeenth Street;
6. Irvine Avenue/Dover Drive;
7. Dover Drive/Westcliff Drive;
8. Dover Drive/Sixteenth Street;
9. Dover Drive/Cliff Drive;
10. Dover Drive/West Coast Highway (SR-1);
11. Bayside Drive/East Coast Highway (SR-1); and
12. Jamboree Road/East Coast Highway (SR-1).

Exhibit 3 shows the location of the study intersections, which are analyzed for the following study scenarios:

- Existing Conditions;
- Forecast Existing Plus Project Conditions;
- Forecast Year 2013 Without Project Conditions; and
- Forecast Year 2013 With Project Conditions.

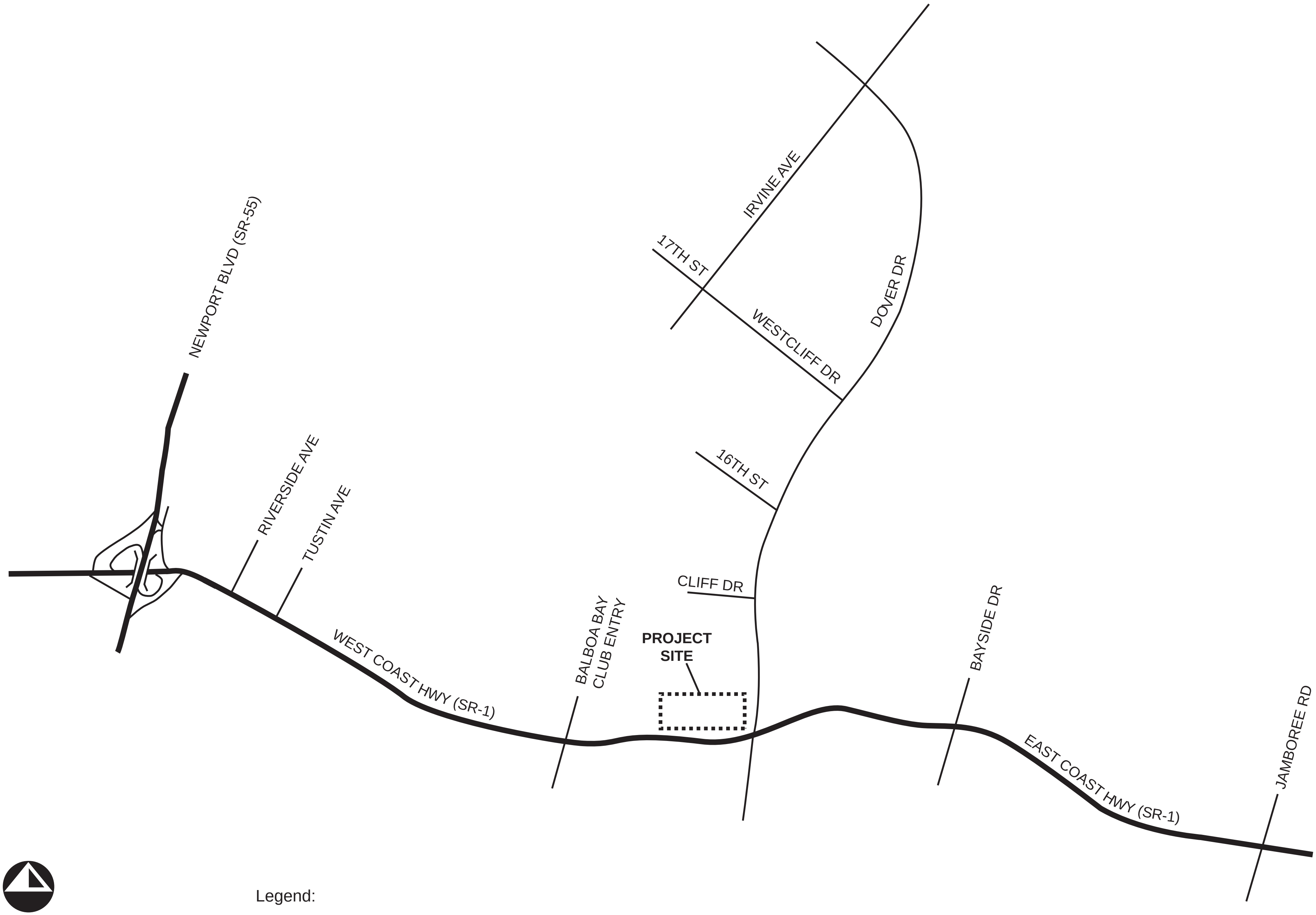


Not to Scale

RBF

Regional Project Location

Exhibit 1



Legend:

▪▪▪▪▪▪ Project Site Boundary

RBF

Project Site Location

Exhibit 2

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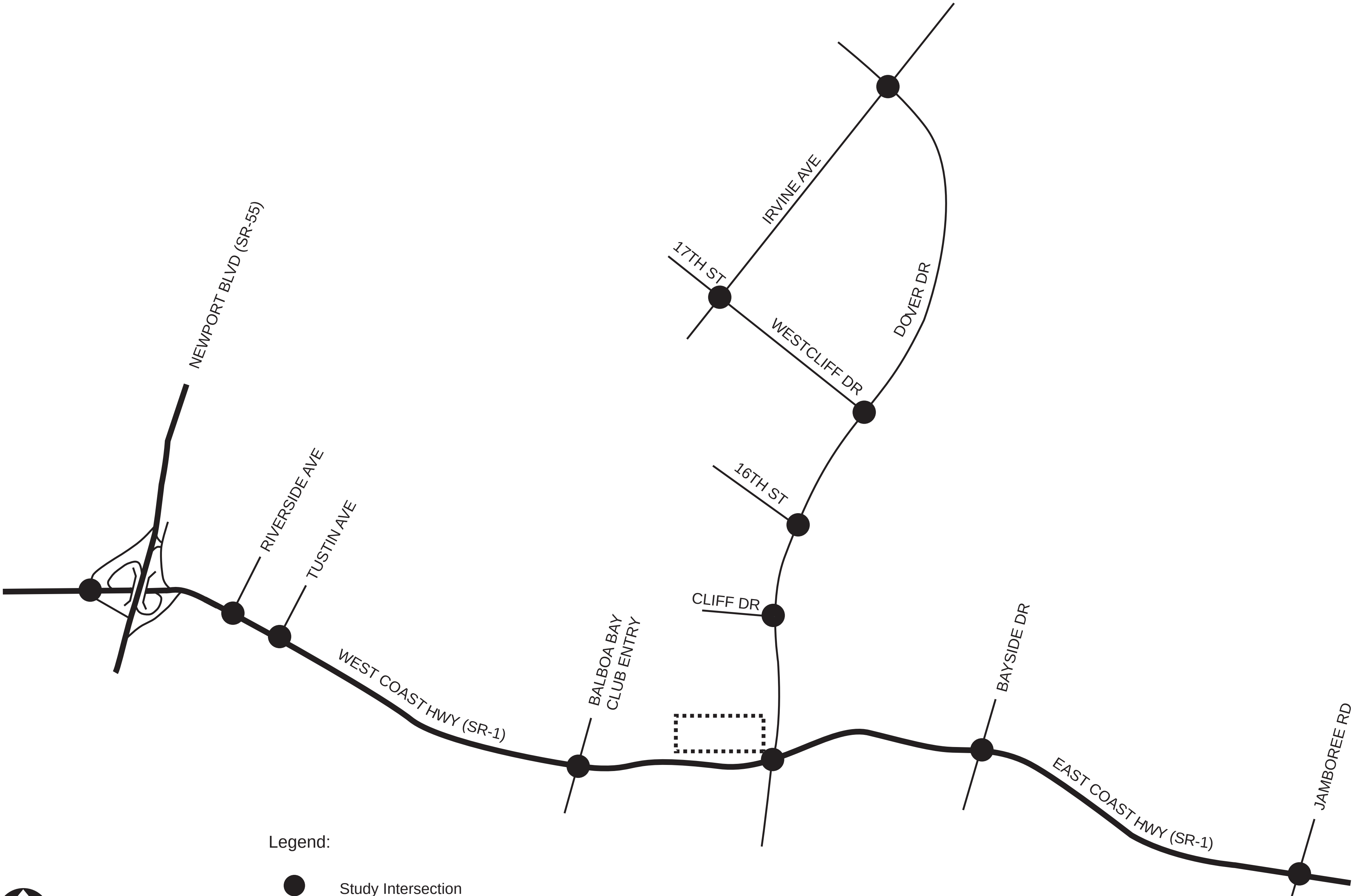
FEB/2011



Legend:

● Study Intersection

▪▪▪▪▪▪ Project Site Boundary

Not to Scale

RBF

Study Intersection Locations

Exhibit 3

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FEB/2011

- Forecast Cumulative Without Project Conditions; and
- Forecast Cumulative With Project Conditions.

Analysis Methodology

Level of service (LOS) is commonly used as a qualitative description of intersection operation and is based on the capacity of the intersection and the volume of traffic using the intersection. The Intersection Capacity Utilization (ICU) analysis method is utilized by the City of Newport Beach and in the Orange County Congestion Management Program (CMP) to determine the operating LOS of signalized intersections. The ICU analysis methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding Volume/Capacity (V/C) ratios shown in Table 1.

Table 1
V/C & LOS Ranges

Signalized Intersections	
V/C Ratio	**LOS**
$\leq$ 0.60	A
0.61 to $\leq$ 0.70	B
0.71 to $\leq$ 0.80	C
0.81 to $\leq$ 0.90	D
0.91 to $\leq$ 1.00	E
> 1.00	F

Source: *City of Newport Beach Traffic Phasing Ordinance, Chapter 15.40.*

In accordance with the City of Newport Beach Traffic Phasing Ordinance (TPO), the ICU analysis assumes a capacity of 1,600 vehicles per hour (vph) for each travel lane (including turn lanes) through an intersection, with no factor for yellow time included in the lane capacity assumptions. The City of Newport Beach TPO methodology calculates the ICU value to three decimal places, and then reports the resulting ICU value rounded down to two decimal places.

City of Newport Beach Performance Criteria

The City of Newport Beach target for peak hour intersection operation as stated in the Circulation Element of the General Plan is LOS D or better except at the following locations where LOS E or better is considered acceptable:

- Intersections in the John Wayne Airport Area shared with the City of Irvine;
- Dover Drive/West Coast Highway (SR-1);
- Riverside Avenue/West Coast Highway (SR-1);
- Goldenrod Avenue/East Coast Highway (SR-1); and
- Marguerite Avenue/East Coast Highway (SR-1).

The criteria for assessing a proposed project, as defined in the City's Traffic Phasing Ordinance, is to achieve LOS D or better at any impacted primary intersection within the City.

City of Newport Beach Threshold of Significance

To determine whether the addition of project-generated trips at a signalized study intersection results in a significant impact, the City of Newport Beach has established the following threshold of significance:

- A significant impact occurs when the addition of project-generated trips causes the level of service at a study intersection to deteriorate from an acceptable LOS (LOS D or better in most cases) to a deficient LOS (LOS E or F); or
- A significant impact occurs when the addition of project-generated trips increases the intersection capacity utilization at a study intersection by one percent or more of capacity ($V/C \geq 0.010$), worsening a projected baseline condition of LOS E or LOS F.

EXISTING CONDITIONS

Roadway Description

The characteristics of the roadway system in the vicinity of the project site are described below:

West Coast Highway (SR-1) in the project vicinity trends in an east-west direction, and is designated State Route 1. East of Dover Drive, West Coast Highway (SR-1) changes names to East Coast Highway (SR-1). Between Balboa Bay Club Entry and Dover Drive, West Coast Highway (SR-1) is a four-lane divided roadway, with a continuous left-turn lane and some non-metered on-street parking permitted. From Tustin Avenue to Balboa Bay Club Entry, West Coast Highway (SR-1) transitions from a four-lane to five-lane divided roadway (three lanes in the westbound direction and two in the eastbound direction), with a continuous left-turn lane and both metered and non-metered on-street parking are permitted. Between Riverside Avenue and Tustin Avenue, West Coast Highway (SR-1) is a five-lane divided roadway (three lanes in the westbound direction and two in the eastbound direction), with a raised median and metered on-street parking permitted. From Newport Boulevard (SR-55) Southbound Off-Ramp to Riverside Avenue, West Coast Highway (SR-1) is a five-lane divided roadway (three lanes in the westbound direction and two in the eastbound direction) with a continuous left-turn lane and metered on-street parking permitted on the north side only. The posted speed limit on West Coast Highway (SR-1) ranges from 40 to 45 miles per hour.

East Coast Highway (SR-1) is designated State Route 1. Between Dover Drive and Bayside Drive, East Coast Highway (SR-1) is a seven-lane undivided roadway (four lanes in the westbound direction and three lanes in the eastbound direction) with on-street parking prohibited. Between Bayside Drive and Jamboree Road, East Coast Highway (SR-1) is an eight-lane roadway, with a raised, landscaped median and on-street parking prohibited. The posted speed limit on West Coast Highway (SR-1) in the study area ranges from 35 to 45 miles per hour, with a posted speed limit of 40 miles per hour adjacent the project site.

Riverside Avenue between West Coast Highway and Avon Street is a four-lane undivided roadway, trending in a north-south direction, with on-street parking prohibited. North of Avon Street, Riverside Avenue is a two-lane undivided roadway. The posted speed limit on Riverside Avenue is 30 miles per hour.

Tustin Avenue is a two-lane undivided roadway trending in a north-south direction that terminates on the south at West Coast Highway (SR-1). Metered on-street parking is permitted on Tustin Avenue.

Dover Drive is a four-lane divided roadway with a raised landscaped median, trending in a north-south direction with on-street parking prohibited between West Coast Highway (SR-1) and Westcliff Drive. Between Westcliff Drive and Irvine Avenue, Dover Drive is a two-lane undivided roadway. On-street parking is permitted on Dover Drive, east of Irvine Avenue. South of West Coast Highway (SR-1), Dover Drive changes name to Bayshore Drive. Bayshore Drive is a two-lane undivided roadway with on-street parking prohibited. The posted speed limit on Dover Drive ranges in the study area from 25 to 40 miles per hour.

Bayside Drive is a two-lane undivided roadway trending in a north-south direction, north of East Coast Highway (SR-1), with on-street parking permitted. The posted speed limit on Bayside Drive north of East Coast Highway is 25 miles per hour. South of East Coast Highway (SR-1), Bayside Drive is a four-lane divided roadway with a continuous left-turn lane and on-street parking prohibited from West Coast Highway (SR-1) to Harbor Island Drive. The posted speed limit on Bayside Drive is 40 miles per hour.

Jamboree Road north of East Coast Highway (SR-1) is a six-lane divided roadway trending in a north-south direction with a raised landscaped median and on-street parking prohibited. South of East Coast Highway (SR-1), Jamboree Road is a four-lane undivided roadway with a painted median and on-street parking prohibited. The posted speed limit on Jamboree Road is 50 miles per hour.

Cliff Drive is a two-lane, undivided roadway trending in an east-west direction with on-street parking prohibited. The posted speed limit on Cliff Drive is 30 miles per hour.

Sixteenth Street is a two-lane undivided roadway trending in an east-west direction with on-street parking prohibited from Dover Drive to Seagull Lane. The posted speed limit on Sixteenth Street is 35 miles per hour.

Westcliff Drive is a four-lane divided roadway trending in an east-west direction with a raised median and on-street parking prohibited. The posted speed limit on Westcliff Drive is 35 miles per hour.

Seventeenth Street is a four-lane undivided roadway trending in an east-west direction with a continuous left-turn lane and on-street parking prohibited. The posted speed limit on Seventeenth Street is 35 miles per hour.

Irvine Avenue is a four-lane divided roadway trending in a north-south direction with a raised median and on-street parking prohibited between Seventeenth Street and Dover Drive. The posted speed limit on Irvine Avenue is 35 miles per hour.

Existing Conditions Peak Hour Traffic Volumes

To determine the existing operation of the study intersections, this study utilizes 2009/2010 a.m. and p.m. peak hour intersection movement counts provided by City of Newport Beach staff. Additionally, a.m. and p.m. peak hour intersection movement counts were collected at the following two study intersections:

- Dover Drive/Cliff Drive; and
- Balboa Bay Club Driveway/West Coast Highway (SR-1).

An annual growth factor of 1.00% on primary roadways, based on the City of Newport Beach TPO, was applied to 2009 traffic counts as appropriate to reflect growth from the count year to year 2010 conditions. The counts used in this analysis were taken from the highest hour within the peak period counted. Detailed traffic count data is contained in Appendix A.

Exhibit 4 shows existing conditions a.m. and p.m. peak hour volumes at the study intersections. Exhibit 5 shows existing study intersection geometry.

Existing Conditions Peak Hour Level of Service

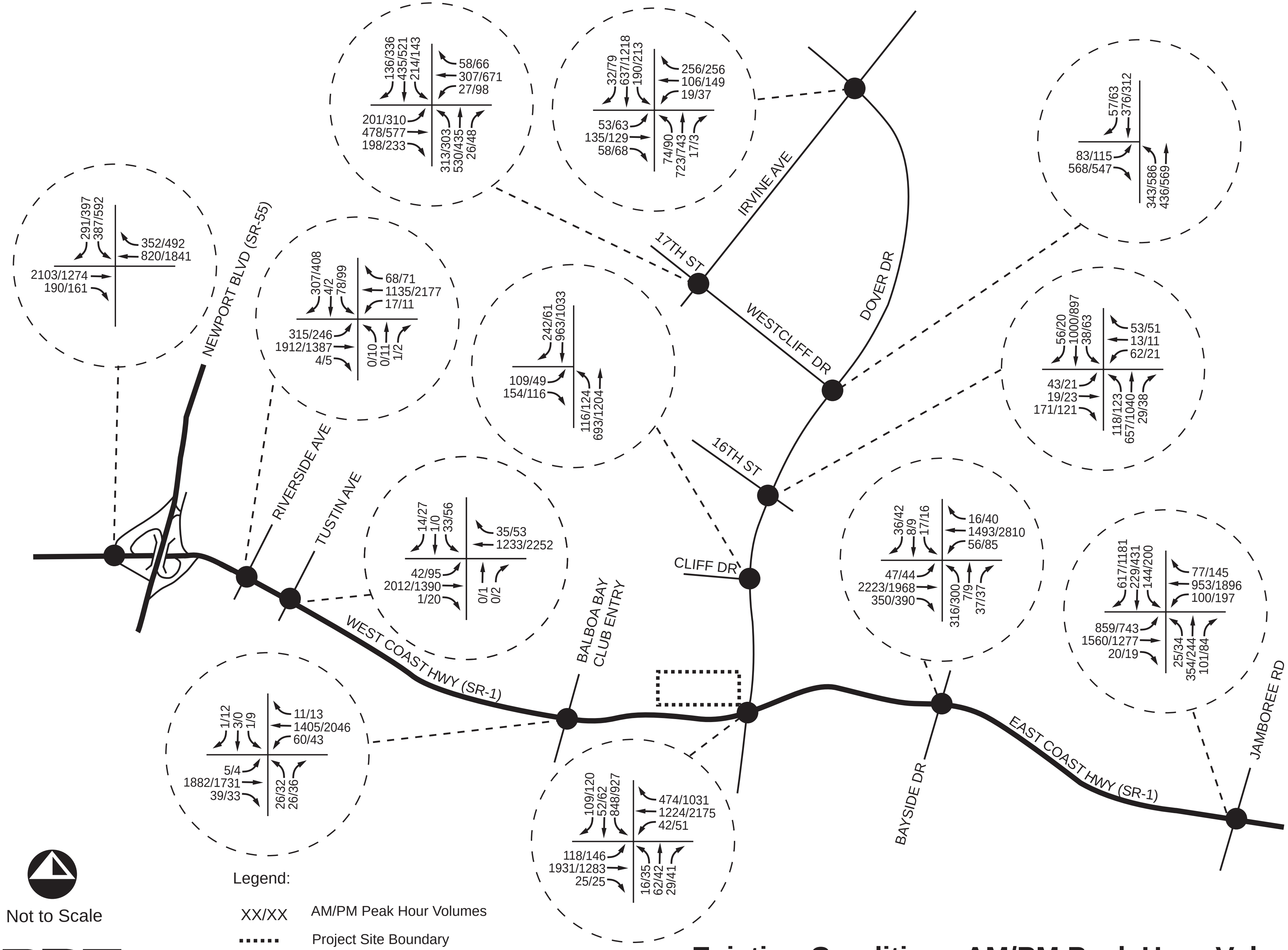
Table 2 summarizes existing conditions a.m. and p.m. peak hour LOS of the study intersections; detailed LOS analysis sheets are contained in Appendix B.

Table 2
Existing Conditions AM/PM Peak Hour Intersection LOS

Int. No.	Study Intersection	AM Peak Hour	PM Peak Hour
		V/C – LOS	V/C – LOS
1	Irvine Ave/Dover Dr	0.543 – A	0.661 – B
2	Irvine Ave/17th St	0.496 – A	0.690 – B
3	Dover Dr/Westcliff Dr	0.368 – A	0.414 – A
4	Dover Dr/16th St	0.588 – A	0.493 – A
5	Dover Dr/Cliff Dr	0.545 – A	0.492 – A
6	Newport Blvd SB Ramps/W. Coast Hwy (SR-1)	0.839 – D	0.646 – B
7	Riverside Ave/W. Coast Hwy (SR-1)	0.658 – B	0.715 – C
8	Tustin Ave/W. Coast Hwy (SR-1)	0.660 – B	0.580 – A
9	Balboa Bay Club Dwy/W. Coast Hwy (SR-1)	0.659 – B	0.694 – B
10	Dover Dr/W. Coast Hwy (SR-1)	0.639 – B	0.718 – C
11	Bayside Dr/E. Coast Hwy (SR-1)	0.601 – B	0.571 – A
12	Jamboree Rd/E. Coast Hwy (SR-1)	0.560 – A	0.679 – B

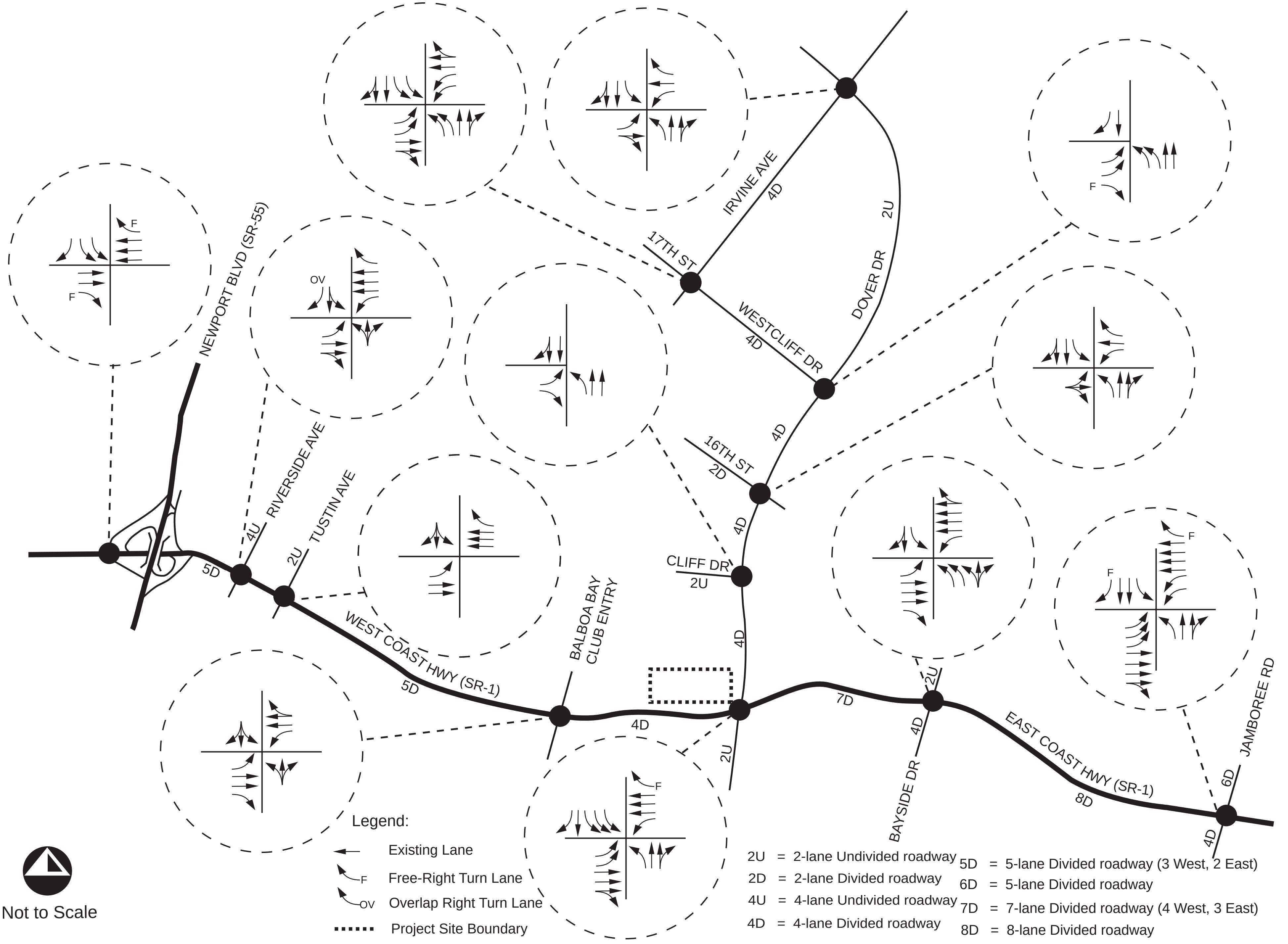
Note: V/C = volume to capacity ratio; SB = southbound.

As shown in Table 2, the study intersections are currently operating at an acceptable LOS (LOS D or better) according to City of Newport Beach performance criteria.



Existing Conditions AM/PM Peak Hour Volumes

Exhibit 4



Existing Study Area Geometry

Exhibit 5

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PROPOSED PROJECT

The proposed project site is located at the northwest corner of the West Coast Highway (SR-1)/Dover Drive intersection. The project applicant proposes to construct a 23,015 square foot commercial center that includes a 7,293 square foot specialty retail component, 12,722 square foot quality restaurant component, and a 3,000 square foot medical office component. The proposed project includes a three-story parking structure that will provide both self parking and valet parking. Project site access is planned via one right-in/right-out driveway and one right-turn out driveway on West Coast Highway (SR-1).

The proposed project is expected to open in 2012; therefore, in accordance with the City of Newport Beach Traffic Phasing Ordinance (TPO) traffic conditions are measured during forecast year 2013 conditions.

Exhibit 6 shows the proposed project site plan.

Project Trip Generation

To calculate trips forecast to be generated by the proposed project, *Institute of Transportation Engineers (ITE)* trip generation rates were utilized. Table 3 summarizes the *ITE* trip generation rates used to calculate the number of trips forecast to be generated by the proposed project.

Table 3
Proposed Project Trip Rates

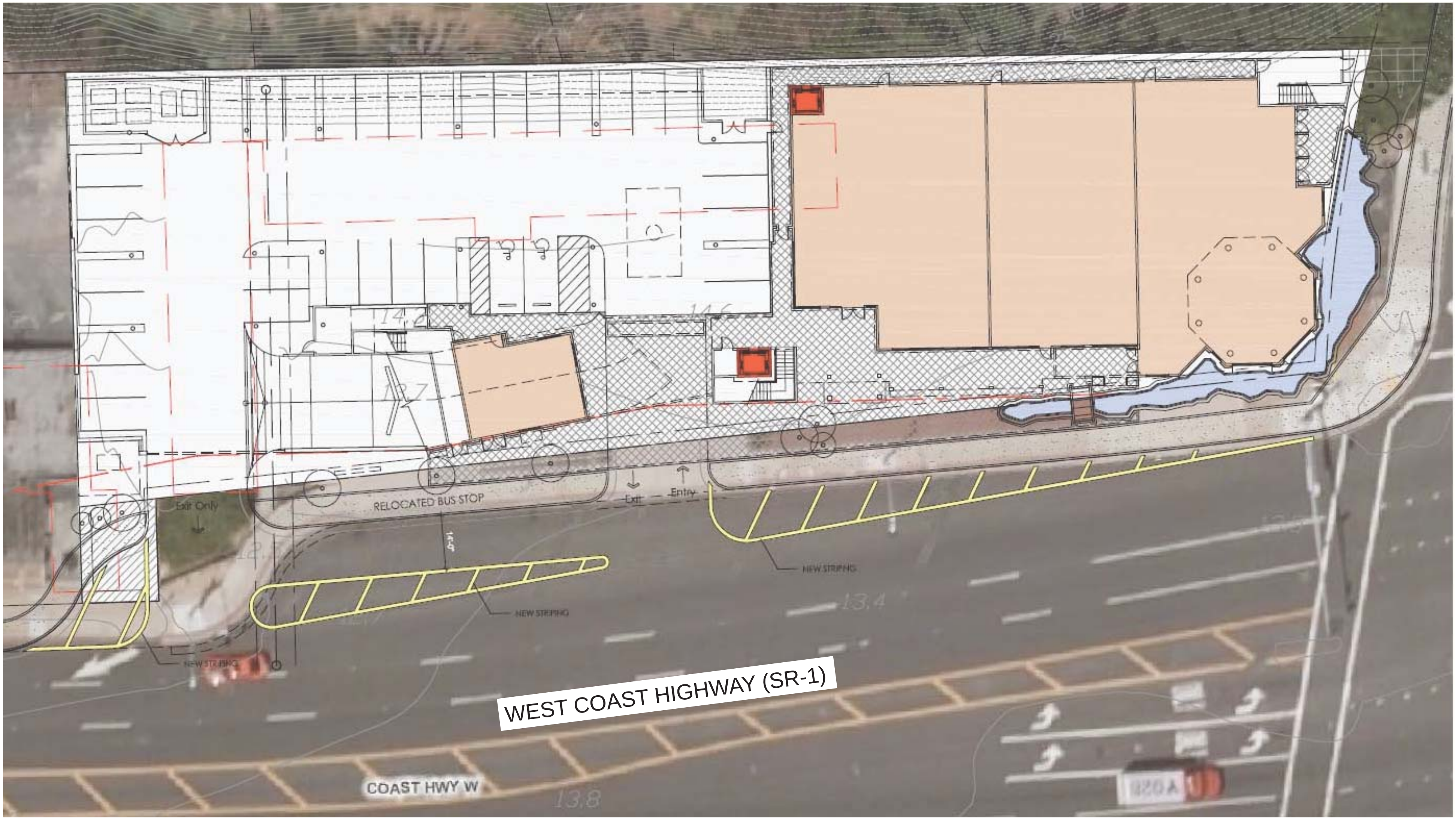
Land Use	Units	AM Peak Hour Rates			PM Peak Hour Rates			Daily Trip Rate
		In	Out	Total	In	Out	Total	
Specialty Retail	tsf	0.0	0.0	0.0	1.19	1.52	2.71	44.32
Quality Restaurant	tsf	0.66	0.15	0.81	5.02	2.47	7.49	89.95
Medical Office	tsf	1.82	0.48	2.30	0.93	2.53	3.46	36.13

Source: *ITE Trip Generation Manual, 8th Edition*
Note: tsf = thousand square feet

The *ITE* trip rates shown in Table 3 do not account for applicable trip reduction factors such as pass-by trips, and hence present a conservative condition for trip generation. Therefore, adjustment to trip generation estimates were made to the proposed project as appropriate in accordance with *ITE* trip reduction rates.

Pass-by Trip Reduction

A pass-by trip reduction is applicable to some retail and restaurant land uses located along busy arterial highways attracting vehicle trips already on the roadway; this is particularly the case when the roadway is experiencing peak operating conditions. For example, during the p.m. peak hour, a motorist already traveling along West Coast Highway (SR-1) between work and home could stop at the restaurant component of the proposed project. A pass-by discount diverts an existing through trip into and out of the project site. While the total project site trip numbers are not reduced, the new trips generated off-site on the surrounding roadway system



Not to Scale

Proposed Project Site Plan

Exhibit 6

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by the project site, or the net project trips, are reduced. Pass-by trips are always included in the site driveway movements.

For the project site land use assumptions contained in this analysis, a pass-by discount is only applicable for the restaurant land use component of the proposed project in the p.m. peak hour according to *ITE* published research data.

Table 4 summarizes the trips forecast to be generated by the proposed project utilizing the *ITE* trip rates shown in Table 3.

Table 4
Proposed Project Trip Generation

Land Use	AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips
	In	Out	Total	In	Out	Total	
7.293 tsf - Specialty Retail	0	0	0	9	11	20	323
12.722 tsf - Quality Restaurant	8	2	10	64	31	95	1,144
Pass-by Discount (44% in p.m.)	*0*	*0*	*0*	*- 28*	*- 14*	*- 42*	*- 42**
3.000 tsf - Medical Office	5	1	6	3	8	11	108
TOTAL	**13**	**3**	**16**	**48**	**36**	**84**	**1,533**

Source: Pass-by discount determined using *ITE Trip Generation Manual, 2nd Edition*
Note: tsf = thousand square feet; *Daily trip reduction assumes total p.m. peak hour trip reduction.

As shown in Table 4, the proposed project is forecast to generate approximately 1,533 daily trips, which includes approximately 48 a.m. peak hour trips and approximately 84 p.m. peak hour trips.

Since the project site is currently occupied by 5,447 square feet of specialty retail planned to be displaced by the proposed project, trips associated with the displaced land use are subtracted from the project site trip generation forecast shown in Table 4 to determine the number of net new trips forecast to be generated by the proposed project. In accordance with City analysis methodology, the net trip generation accounting for the displaced land use is only utilized for the TPO traffic analysis (forecast year 2013 with project conditions), not for forecast existing plus project conditions or forecast cumulative with project conditions.

Table 5 summarizes the existing project site trips forecast to be displaced by the proposed project utilizing the *ITE* trip rates shown in Table 3.

Table 5
Existing Project Site Trip Generation Displaced by Proposed Project

Land Use	AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips
	In	Out	Total	In	Out	Total	
5.447 tsf – Specialty Retail	0	0	0	6	8	14	241

Note: tsf = thousand square feet

As shown in Table 5, the existing project site land use that will be displaced by the proposed project is estimated to generate 241 daily trips, which include approximately 0 a.m. peak hour trips and approximately 14 p.m. peak hour trips.

Table 6 shows the net new trips forecast to be generated by the proposed project utilized in the TPO analysis (forecast year 2013 with project conditions).

Table 6
Net Forecast Project Trip Generation Utilized in TPO Analysis

Land Use	AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips
	In	Out	Total	In	Out	Total	
Existing Site (displaced)	0	0	0	-6	-8	-14	-241
Proposed Mariner's Pointe Project	13	3	16	48	36	84	1,533
TOTAL	**13**	**3**	**16**	**42**	**28**	**70**	**1,292**

As shown in Table 6, the proposed project is forecast to generate approximately 1,292 net new daily trips, which includes approximately 16 net new a.m. peak hour trips and approximately 70 net new p.m. peak hour trips as analyzed in the TPO analysis.

Project Trip Distribution

Exhibit 7 shows the forecast trip percent distribution of project-generated peak hour trips.

Project Trip Assignment

Exhibit 8 shows the forecast assignment of project-generated a.m. and p.m. peak hour trips utilized for both forecast existing plus project conditions and forecast cumulative with project conditions assuming the trip percent distribution shown in Exhibit 7.

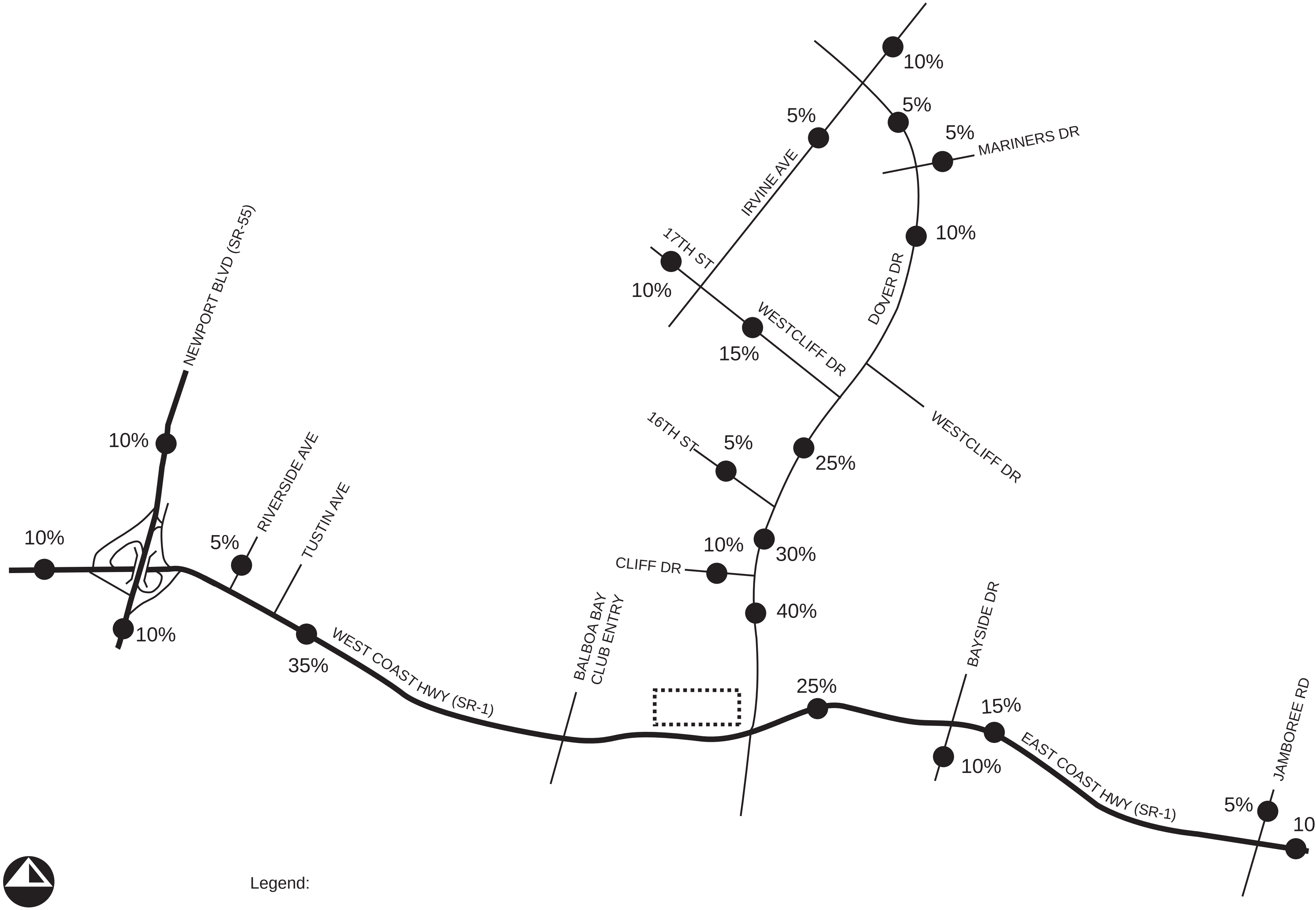
Exhibit 9 shows the forecast assignment of net project-generated a.m. and p.m. peak hour trips utilized for the TPO analysis (forecast year 2013 with project conditions) assuming the trip percent distribution shown in Exhibit 7.

FORECAST EXISTING PLUS PROJECT CONDITIONS

Forecast existing plus project conditions a.m. and p.m. peak hour volumes were derived by adding forecast project-generated trips to existing conditions traffic volumes.

Forecast Existing Plus Project Traffic Volumes

Exhibit 10 shows forecast existing plus project conditions a.m. and p.m. peak hour volumes at the study intersections.



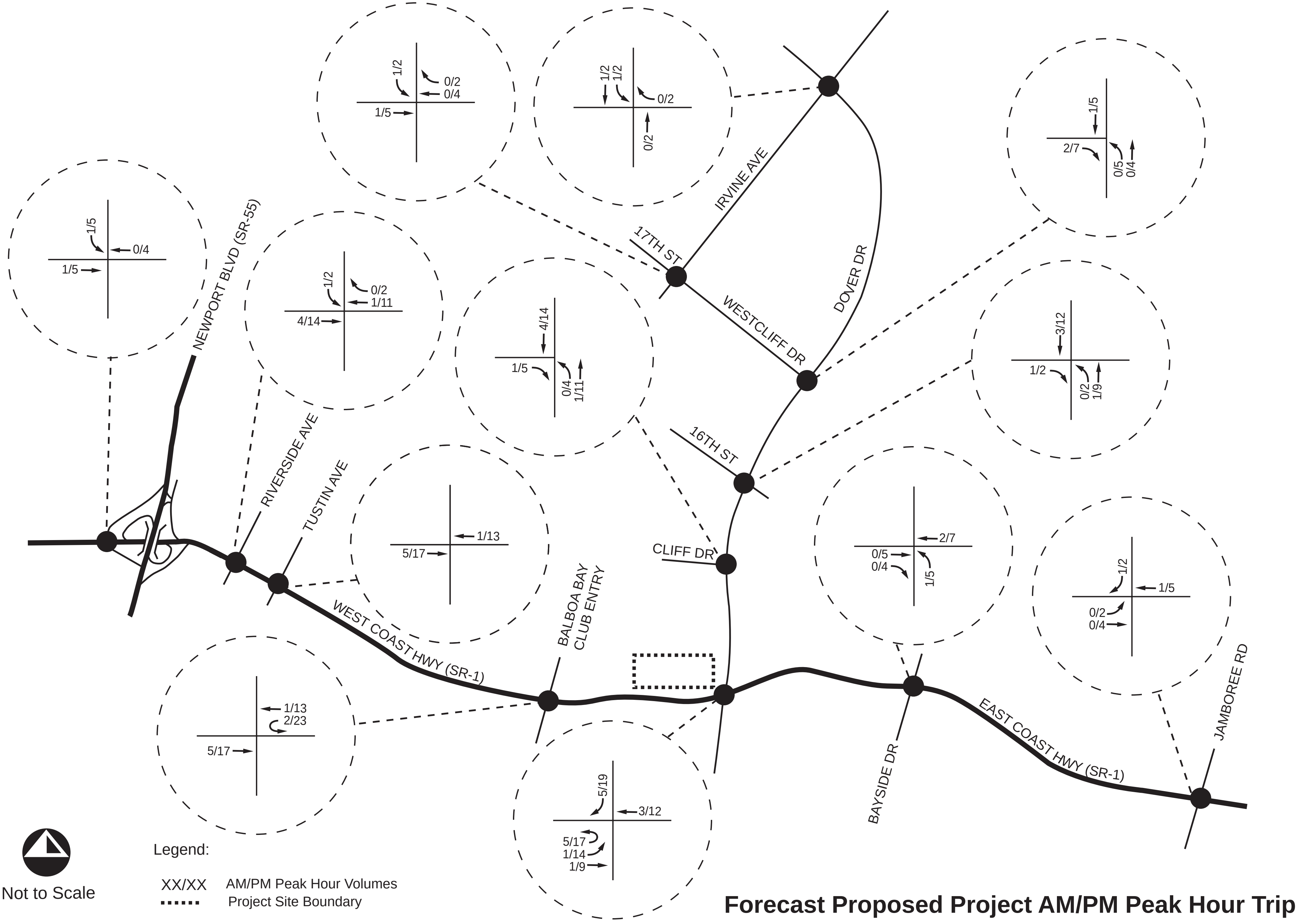
Legend:

XX% Trip Percent Distribution

⋯⋯ Project Site Boundary

Forecast Proposed Project Trip Distribution

Exhibit 7



Forecast Proposed Project AM/PM Peak Hour Trip Assignment Utilized for Forecast Existing Plus Project & Forecast Cumulative With Project Analysis

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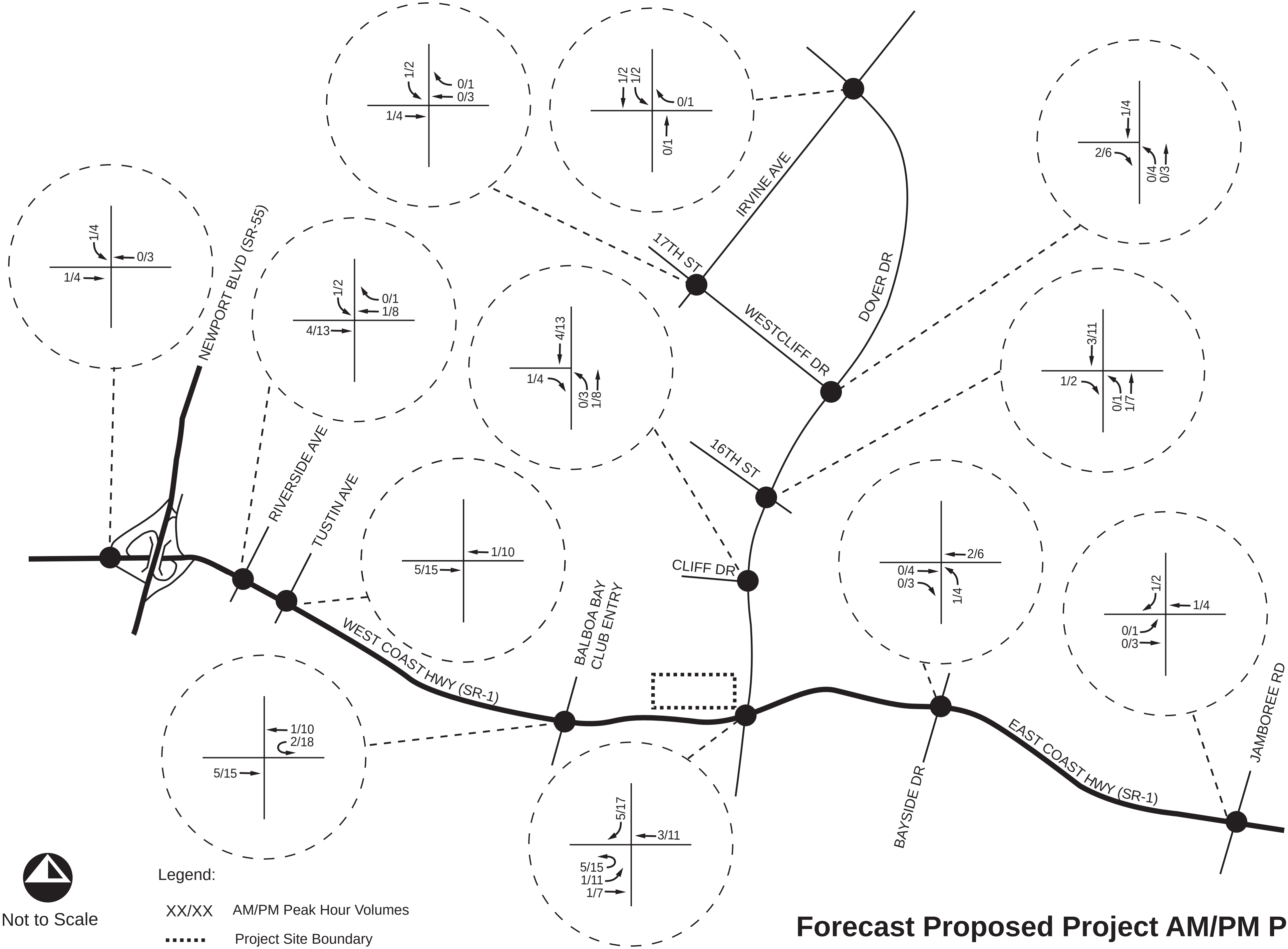
Exhibit 8



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Legend:

XX/XX AM/PM Peak Hour Volumes

...... Project Site Boundary

Forecast Proposed Project AM/PM Peak Hour Net Trip Assignment Utilized for TPO Analysis

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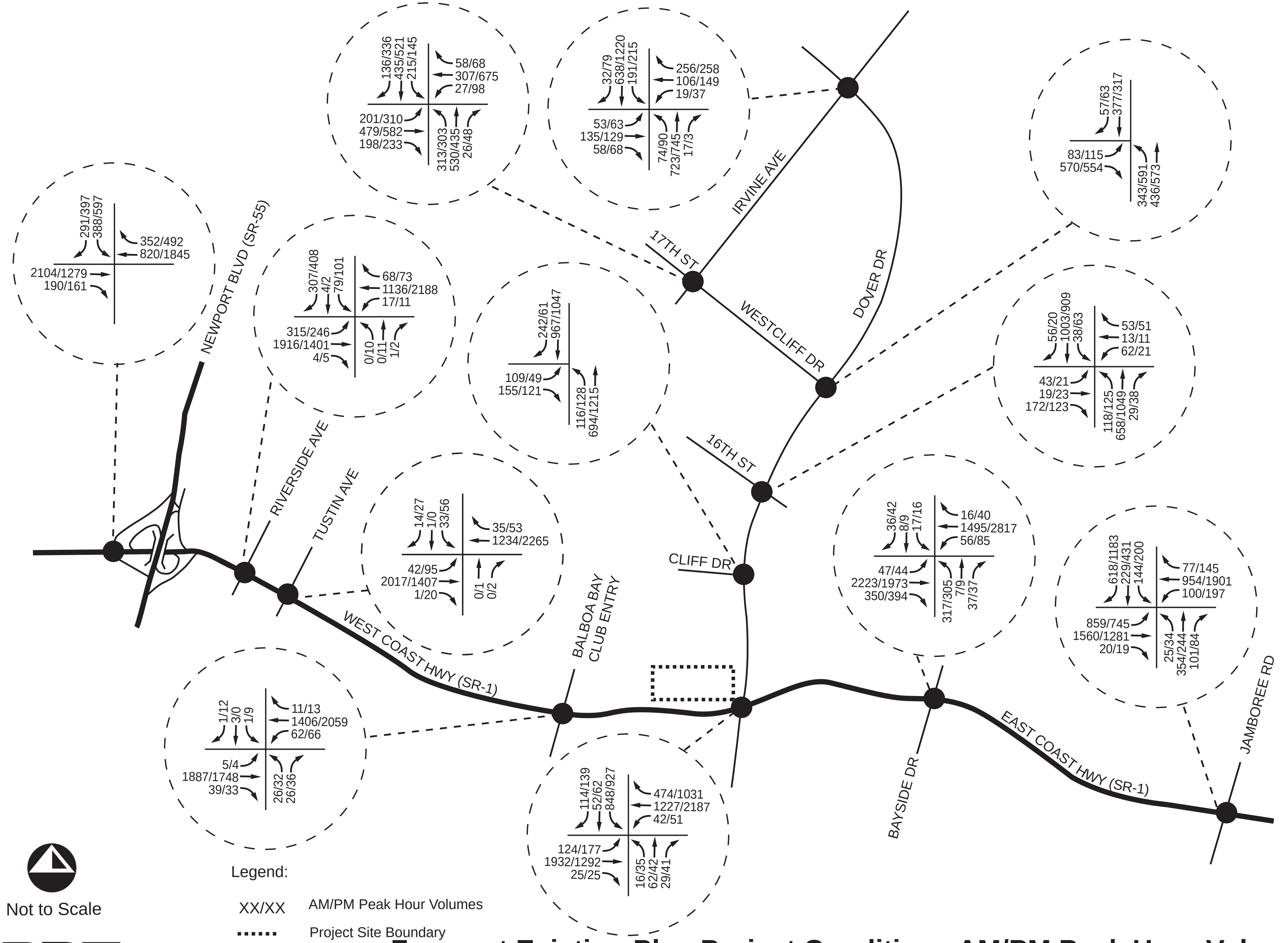
Exhibit 9



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Forecast Existing Plus Project Conditions AM/PM Peak Hour Volumes

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Exhibit 10

Forecast Existing Plus Project Conditions Level of Service

Table 7 summarizes forecast existing plus project conditions a.m. peak hour and p.m. peak hour LOS of the study intersections; detailed LOS analysis sheets are contained in Appendix B.

Table 7
Forecast Existing Plus Project Conditions AM & PM Peak Hour LOS

Int. No.	Study Intersection	Existing Conditions		Forecast Existing Plus Project Conditions		Increase in V/C		Significant Impact?
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour			
		V/C – LOS	V/C – LOS	V/C – LOS	V/C – LOS	AM	PM	
1	Irvine Ave/Dover Dr	0.543 – A	0.661 – B	0.544 – A	0.663 – B	0.001	0.002	No
2	Irvine Ave/17th St	0.496 – A	0.690 – B	0.496 – A	0.692 – B	0.000	0.002	No
3	Dover Dr/Westcliff Dr	0.368 – A	0.414 – A	0.369 – A	0.419 – A	0.001	0.005	No
4	Dover Dr/16th St	0.588 – A	0.493 – A	0.590 – A	0.497 – A	0.002	0.004	No
5	Dover Dr/Cliff Dr	0.545 – A	0.492 – A	0.547 – A	0.502 – A	0.002	0.010	No
6	Newport Blvd SB Ramps/W. Coast Hwy (SR-1)	0.839 – D	0.646 – B	0.839 – D	0.648 – B	0.000	0.002	No
7	Riverside Ave/W. Coast Hwy (SR-1)	0.658 – B	0.715 – C	0.660 – B	0.717 – C	0.002	0.002	No
8	Tustin Ave/W. Coast Hwy (SR-1)	0.660 – B	0.580 – A	0.661 – B	0.583 – A	0.001	0.003	No
9	Balboa Bay Club Dwy/W. Coast Hwy (SR-1)	0.659 – B	0.694 – B	0.662 – B	0.698 – B	0.003	0.004	No
10	Dover Dr/W. Coast Hwy (SR-1)	0.639 – B	0.718 – C	0.639 – B	0.730 – C	0.000	0.012	No
11	Bayside Dr/E. Coast Hwy (SR-1)	0.601 – B	0.571 – A	0.601 – B	0.573 – A	0.000	0.002	No
12	Jamboree Rd/E. Coast Hwy (SR-1)	0.560 – A	0.679 – B	0.560 – A	0.680 – B	0.000	0.001	No

Note: V/C = volume to capacity ratio; SB = southbound; Deficient intersection operation shown in **bold**.

As shown in Table 7, with the addition of project-generated trips, the study intersections are forecast to continue to operate at an acceptable LOS (LOS D or better) for forecast existing plus project conditions according to City of Newport Beach performance criteria.

As also shown in Table 7, based on City-established thresholds of significance, the addition of project-generated trips to the study intersections is forecast to result in no significant impacts for forecast existing plus project conditions.

FORECAST YEAR 2013 WITHOUT PROJECT CONDITIONS

The proposed Mariner’s Pointe Project is planned to open in 2012. In accordance with the City of Newport Beach Traffic Phasing Ordinance (TPO), the analysis year is 2013. Forecast year 2013 without project conditions are analyzed first to measure potential project impacts against.

Forecast year 2013 without project traffic volumes were increased by an annual growth factor of one percent per year as directed by City staff to account for ambient traffic growth in the project vicinity at study intersections.

Additionally, trips were added from sixteen (16) approved projects in the project vicinity identified by City staff, which have already been approved, but have not yet been constructed. These approved projects are expected to be built and generating trips by year 2013. Approved project trip generation and assignment data was provided by the City of Newport Beach and is contained in Appendix C.

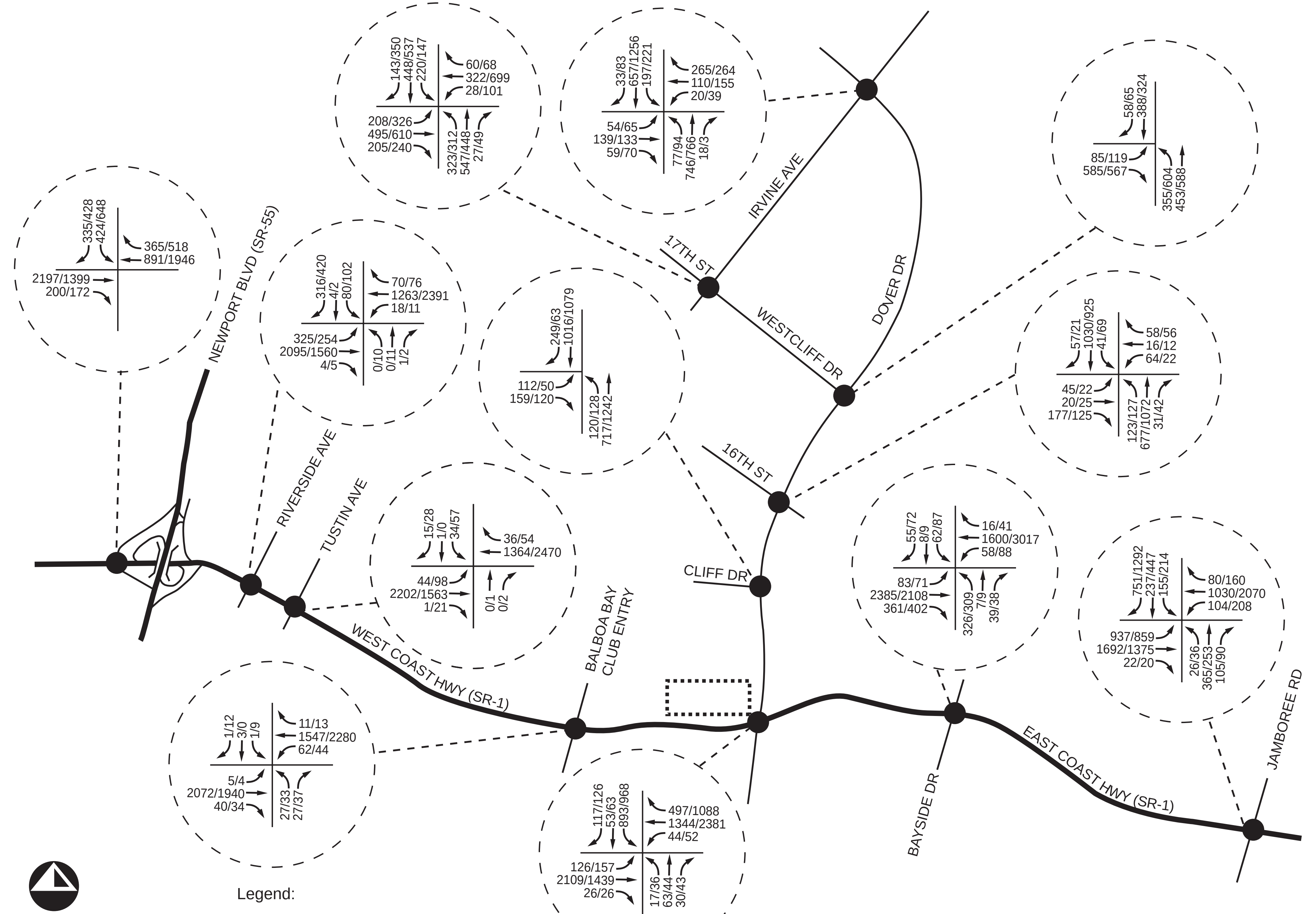
The sixteen (16) approved projects identified by City staff consist of:

- Fashion Island Expansion;
- Temple Bat Yahm Expansion;
- Ciosa-Irvine Project;
- Newport Dunes;
- Hoag Hospital Phase III;
- St. Marks Presbyterian Church;
- OLQA Church Expansion;
- 2300 Newport Boulevard;
- Newport Executive Court;
- Hoag Health Center;
- North Newport Center
- Santa Barbara Condo;
- Newport Beach City Hall;
- 328 Old Newport Medical Office;
- Coastline Community College; and
- Bayview Medical Office.

Exhibit 11 shows forecast year 2013 without project conditions a.m. and p.m. peak hour volumes at the study intersections.

The initial stage of the TPO analysis consists of a one percent analysis at each study intersection. The one percent analysis compares proposed project traffic with the projected forecast year 2013 without project peak hour traffic volumes. If forecast peak hour traffic from the proposed project is less than one percent of the projected background traffic on each leg of the intersection then further ICU analysis is not required. If the proposed project is forecast to add more than one percent of the background traffic on any leg of the intersection then ICU analysis is required.

Table 8 summarizes the results of the one percent analysis for forecast year 2013 with projects conditions. Detailed one percent analysis worksheets are contained in Appendix D.



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Legend:

XX/XX AM/PM Peak Hour Volumes

...... Project Site Boundary

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Forecast Year 2013 Without Project Conditions AM/PM Peak Hour Volumes

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Exhibit 11

Table 8
One Percent Volume Analysis Forecast Year 2013 With Projects

Int. No.	Study Intersection	AM Peak Hour				PM Peak Hour			
		NB	SB	EB	WB	NB	SB	EB	WB
1	Irvine Ave/Dover Dr								
2	Irvine Ave/17th St								
3	Dover Dr/Westcliff Dr						X		
4	Dover Dr/16th St						X	X	
5	Dover Dr/Cliff Dr						X	X	
6	Newport Blvd SB Ramps/W. Coast Hwy (SR-1)								
7	Riverside Ave/W. Coast Hwy (SR-1)								
8	Tustin Ave/W. Coast Hwy (SR-1)								
9	Balboa Bay Club Dwy/W. Coast Hwy (SR-1)								X
10	Dover Dr/W. Coast Hwy (SR-1)						X	X	
11	Bayside Dr/E. Coast Hwy (SR-1)					X			
12	Jamboree Rd/E. Coast Hwy (SR-1)								

Note: NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound.
X = Project peak hour traffic volume greater than one percent of projected background traffic.

As shown in Table 8, the following City of Newport Beach intersections exceed the one percent test and thus require further ICU analysis for forecast year 2013 with projects conditions:

- Dover Drive/Westcliff Drive;
- Dover Drive/16th Street;
- Dover Drive/Cliff Drive;
- Balboa Bay Club Driveway/West Coast Highway (SR-1);
- Dover Drive/West Coast Highway (SR-1); and
- Bayside Drive/East Coast Highway (SR-1).

Forecast Year 2013 Without Project Conditions Level of Service

Table 9 summarizes forecast year 2013 without project conditions a.m. and p.m. peak hour LOS of the study intersections. Detailed LOS analysis sheets are contained in Appendix B.

Table 9
Forecast Year 2013 Without Project Conditions
AM/PM Peak Hour Intersection LOS

Int. No.	Study Intersection	AM Peak Hour	PM Peak Hour
		V/C – LOS	V/C – LOS
3	Dover Dr/Westcliff Dr	0.38 – A	0.43 – A
4	Dover Dr/16th St	0.61 – B	0.51 – A
5	Dover Dr/Cliff Dr	0.57 – A	0.51 – A
9	Balboa Bay Club Dwy/W. Coast Hwy (SR-1)	0.72 – C	0.77 – C
10	Dover Dr/W. Coast Hwy (SR-1)	0.69 – B	0.77 – C
11	Bayside Dr/E. Coast Hwy (SR-1)	0.65 – B	0.64 – B

Note: V/C = volume to capacity ratio.

As shown in Table 9, with the addition of trips forecast to be generated by the approved projects, the TPO study intersections are forecast to operate at an acceptable LOS (LOS D or better) for forecast year 2013 without project conditions according to City of Newport Beach performance criteria.

FORECAST YEAR 2013 WITH PROJECT CONDITIONS

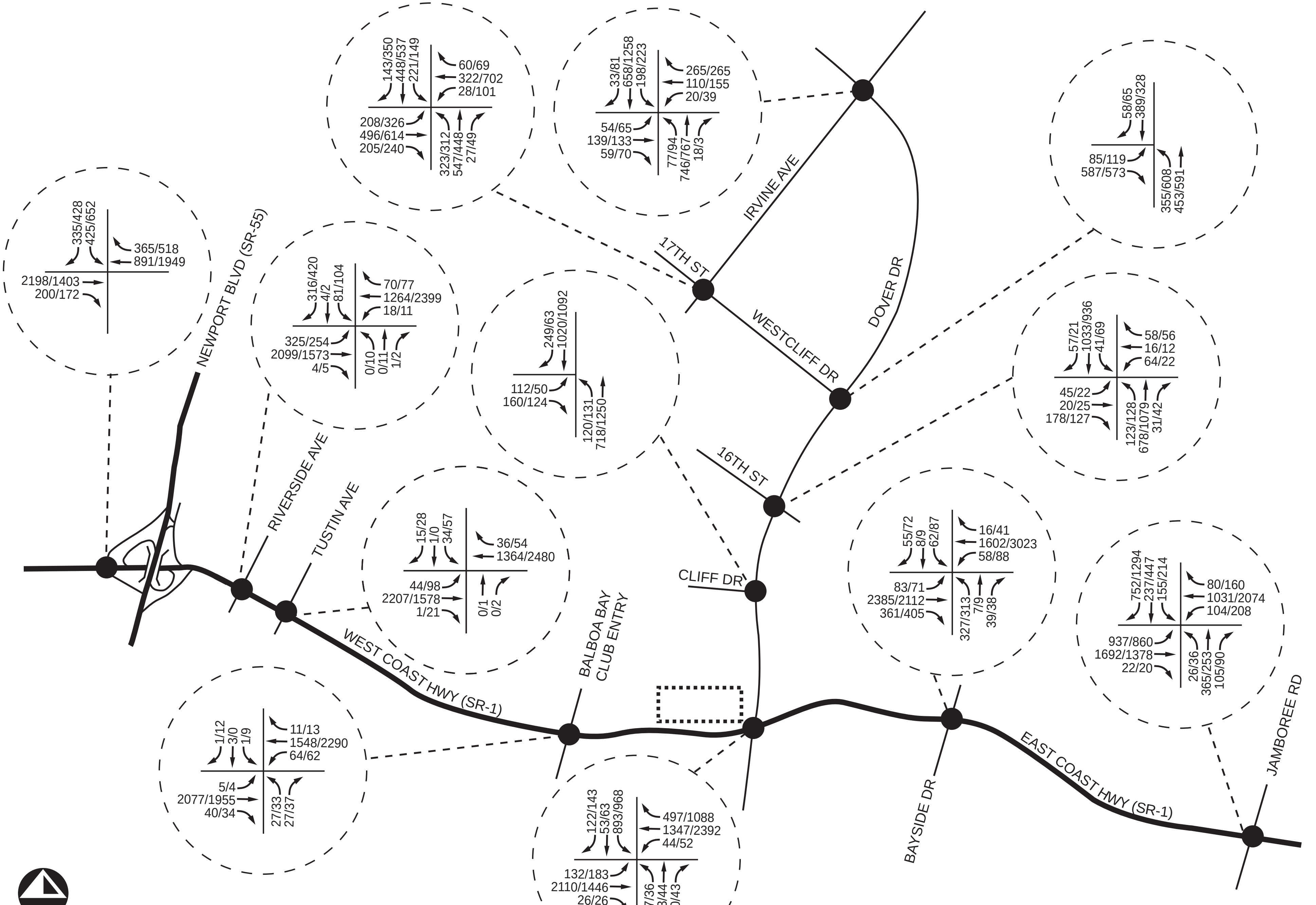
Forecast year 2013 with project conditions were derived by adding the proposed project-generated trips to forecast year 2013 without project conditions.

Forecast Year 2013 With Project Conditions Peak Hour Traffic Volumes

Exhibit 12 shows forecast year 2013 with project conditions a.m. and p.m. peak hour traffic volumes at the study intersections.

Forecast Year 2013 With Project Conditions Level of Service

Table 10 summarizes the forecast year 2013 with project conditions a.m. and p.m. peak hour LOS of the study intersections; detailed LOS analysis sheets are contained in Appendix B.



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Legend:

XX/XX AM/PM Peak Hour Volumes

▪▪▪▪▪ Project Site Boundary

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Forecast Year 2013 With Project Conditions AM/PM Peak Hour Volumes

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Exhibit 12

Table 10
Forecast Year 2013 With Project Conditions AM/PM Peak Hour Intersection LOS

Int. No.	Study Intersection	Forecast Year 2013 Without Project Conditions		Forecast Year 2013 With Project Conditions		Increase in V/C		Significant Impact?
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour			
		V/C – LOS	V/C – LOS	V/C – LOS	V/C – LOS	AM	PM	
3	Dover Dr/Westcliff Dr	0.38 – A	0.43 – A	0.38 – A	0.43 – A	0.00	0.00	No
4	Dover Dr/16th St	0.61 – B	0.51 – A	0.61 – B	0.52 – A	0.00	0.01	No
5	Dover Dr/Cliff Dr	0.57 – A	0.51 – A	0.57 – A	0.52 – A	0.00	0.01	No
9	Balboa Bay Club Dwy/W. Coast Hwy (SR-1)	0.72 – C	0.77 – C	0.72 – C	0.77 – C	0.00	0.00	No
10	Dover Dr/W. Coast Hwy (SR-1)	0.69 – B	0.77 – C	0.69 – B	0.78 – C	0.00	0.01	No
11	Bayside Dr/E. Coast Hwy (SR-1)	0.65 – B	0.64 – B	0.65 – B	0.65 – B	0.00	0.01	No

Note: V/C = volume to capacity ratio.

As shown in Table 10, with the addition of project-generated trips, the TPO study intersections are forecast to continue to operate at an acceptable LOS (LOS D or better) for forecast year 2013 with project conditions according to City of Newport Beach performance criteria.

As also shown in Table 10, based on City of Newport Beach established thresholds of significance, the addition of project-generated trips is forecast to result in no significant TPO impacts at the study intersections for forecast year 2013 with project conditions.

FORECAST CUMULATIVE WITHOUT PROJECT CONDITIONS

Forecast cumulative without project conditions were derived by adding cumulative projects identified by the City of Newport Beach to forecast year 2013 without project conditions.

Cumulative project trips were added from twelve (12) other projects in the project vicinity identified by City staff that are considered foreseeable, but have not yet been constructed and therefore are not currently generating trips. This section analyzes the impact of adding trips forecast to be generated by these nine cumulative projects to forecast year 2013 without project conditions to reflect cumulative without project conditions. Cumulative project trip generation and trip distribution data was provided by the City of Newport Beach for use in this analysis and is contained in Appendix F.

The City of Newport Beach provided data for the following twelve (12) forecast cumulative projects:

- Newport Beach Country Club;
- Mariner’s Medical Arts;
- WPI-Newport, LLC;
- Banning Ranch;
- Sunset Ridge Park;

- Marina Park;
- Pres Office Building;
- Conexant;
- Koll Conceptual Plan;
- Aerie;
- Dolphin Striker; and
- Newport Coast.

Forecast Cumulative Without Project Conditions Peak Hour Traffic Volumes

Exhibit 13 shows forecast cumulative without project conditions a.m. and p.m. peak hour volumes at the study intersections.

Forecast Cumulative Without Project Conditions Level of Service

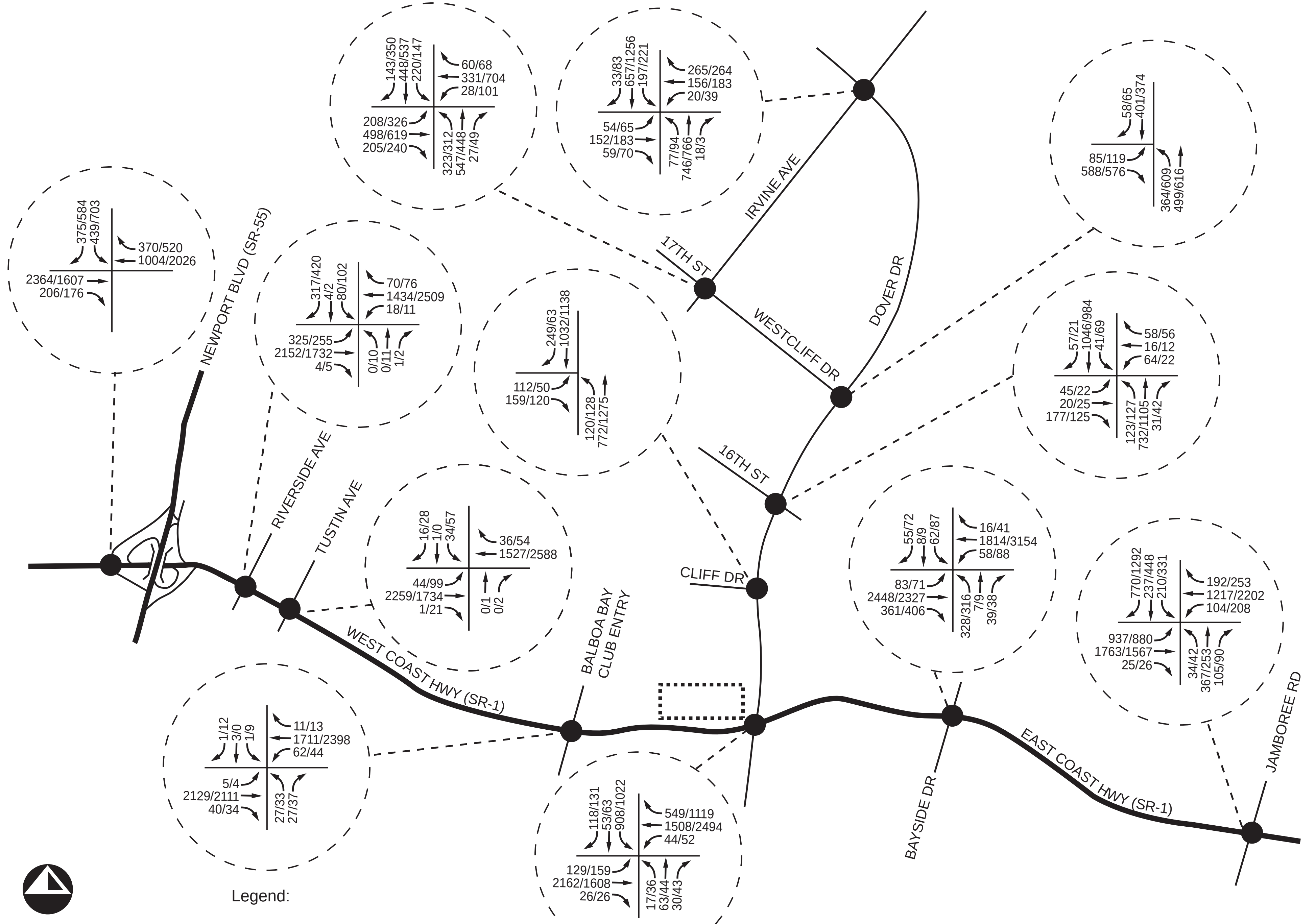
Table 11 summarizes forecast cumulative without project conditions a.m. and p.m. peak hour LOS of the study intersections; detailed LOS analysis sheets are contained in Appendix B.

Table 11
Forecast Cumulative Without Project Conditions
AM/PM Peak Hour Intersection LOS

Int. No.	Study Intersection	AM Peak Hour	PM Peak Hour
		V/C – LOS	V/C – LOS
1	Irvine Ave/Dover Dr	0.561 – A	0.682 – B
2	Irvine Ave/17th St	0.514 – A	0.718 – C
3	Dover Dr/Westcliff Dr	0.391 – A	0.461 – A
4	Dover Dr/16th St	0.613 – B	0.523 – A
5	Dover Dr/Cliff Dr	0.575 – A	0.530 – A
6	Newport Blvd SB Ramps/W. Coast Hwy (SR-1)	**0.973 – E**	0.867 – D
7	Riverside Ave/W. Coast Hwy (SR-1)	0.735 – C	0.791 – C
8	Tustin Ave/W. Coast Hwy (SR-1)	0.739 – C	0.654 – B
9	Balboa Bay Club Dwy/W. Coast Hwy (SR-1)	0.738 – C	0.805 – D
10	Dover Dr/W. Coast Hwy (SR-1)	0.702 – C	0.809 – D
11	Bayside Dr/E. Coast Hwy (SR-1)	0.664 – B	0.670 – B
12	Jamboree Rd/E. Coast Hwy (SR-1)	0.664 – B	0.841 – D

Note: V/C = volume to capacity ratio; SB = southbound; Deficient intersection operation shown in **bold**.

As shown in Table 11, with the addition of cumulative project-generated trips, the study intersections are forecast to operate at an acceptable LOS (LOS D or better) for forecast cumulative without project conditions according to City of Newport Beach performance criteria with the exception the Newport Boulevard Southbound Ramps/West Coast Highway (SR-1) study intersection during the a.m. peak hour which is forecast to operate at LOS E.



Not to Scale

Legend:

XX/XX AM/PM Peak Hour Volumes

...... Project Site Boundary

Forecast Cumulative Without Project Conditions AM/PM Peak Hour Volumes

Exhibit 13

H:\pdata\10107807\Traffic\Exhibits\Exh13.ai

FEB/2011

FORECAST CUMULATIVE WITH PROJECT CONDITIONS

Forecast cumulative with project conditions traffic volumes were derived by adding proposed project generated trips to forecast cumulative without project conditions scenario. As previously noted, forecast cumulative with project conditions do not account for the displaced existing specialty retail land use as assumed in the TPO analysis.

Forecast Cumulative With Project Conditions Peak Hour Traffic Volumes

Exhibit 14 shows forecast cumulative with project conditions a.m. and p.m. peak hour volumes at the study intersections.

Forecast Cumulative With Project Conditions Level of Service

Table 12 summarizes forecast cumulative with project conditions a.m. and p.m. peak hour LOS of the study intersections; detailed LOS analysis sheets are contained in Appendix B.

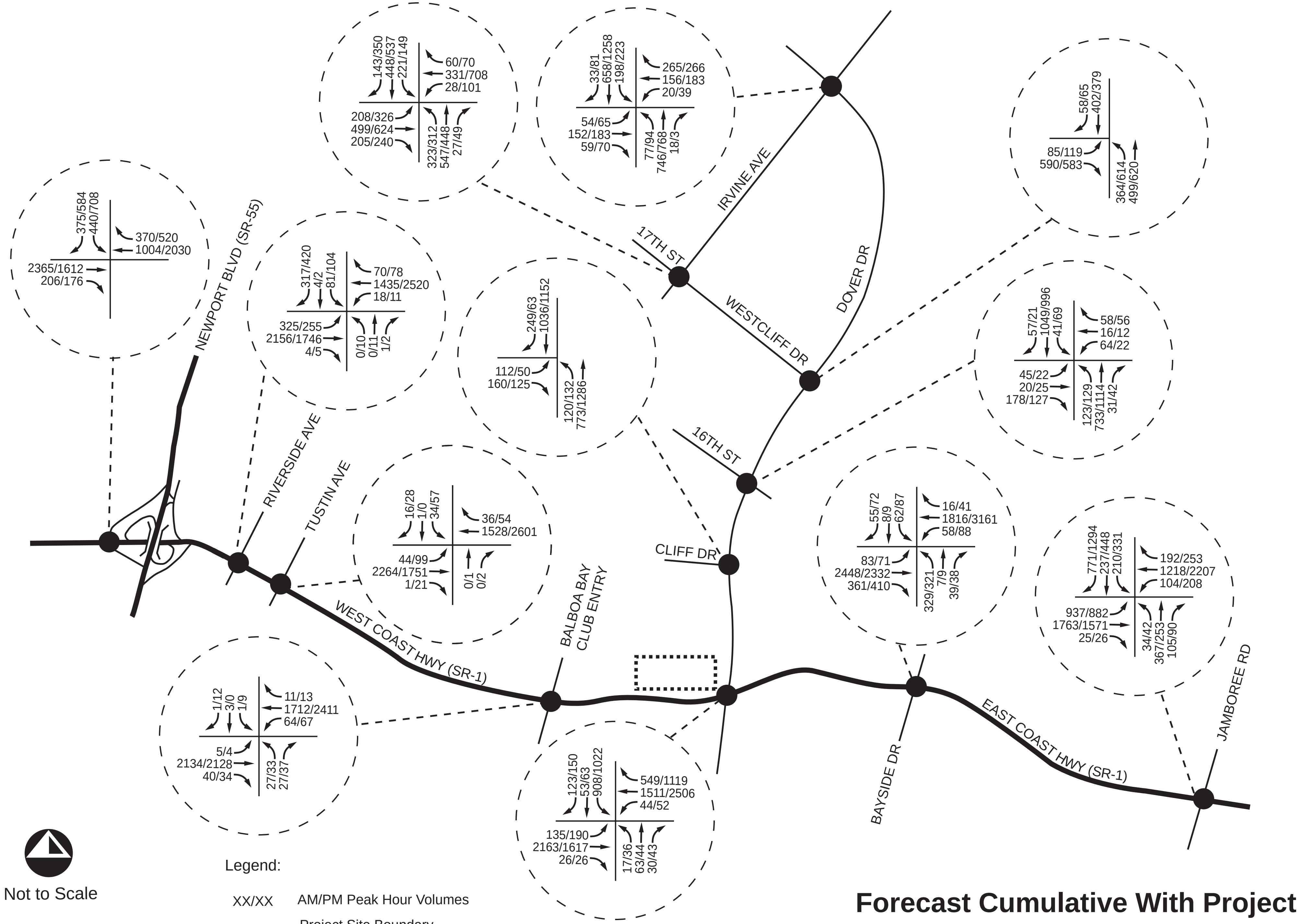
Table 12

Forecast Cumulative With Project Conditions AM/PM Peak Hour Intersection LOS

Int. No.	Study Intersection	Forecast Cumulative Without Project Conditions		Forecast Cumulative With Project Conditions		Increase in V/C		Significant Impact?
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour			
		V/C – LOS	V/C – LOS	V/C – LOS	V/C – LOS	AM	PM	
1	Irvine Ave/Dover Dr	0.561 – A	0.682 – B	0.562 – A	0.684 – B	0.001	0.002	No
2	Irvine Ave/17th St	0.514 – A	0.718 – C	0.514 – A	0.720 – C	0.000	0.002	No
3	Dover Dr/Westcliff Dr	0.391 – A	0.461 – A	0.392 – A	0.466 – A	0.001	0.005	No
4	Dover Dr/16th St	0.613 – B	0.523 – A	0.614 – B	0.521 – A	0.001	-0.002	No
5	Dover Dr/Cliff Dr	0.575 – A	0.530 – A	0.577 – A	0.540 – A	0.002	0.010	No
6	Newport Blvd SB Ramps/W. Coast Hwy (SR-1)	**0.973 – E**	0.867 – D	**0.973 – E**	0.869 – D	0.000	0.002	No
7	Riverside Ave/W. Coast Hwy (SR-1)	0.735 – C	0.791 – C	0.737 – C	0.794 – C	0.002	0.003	No
8	Tustin Ave/W. Coast Hwy (SR-1)	0.739 – C	0.654 – B	0.740 – C	0.657 – B	0.001	0.003	No
9	Balboa Bay Club Dwy/W. Coast Hwy (SR-1)	0.738 – C	0.805 – D	0.741 – C	0.809 – D	0.003	0.004	No
10	Dover Dr/W. Coast Hwy (SR-1)	0.702 – C	0.809 – D	0.702 – C	0.822 – D	0.000	0.013	No
11	Bayside Dr/E. Coast Hwy (SR-1)	0.664 – B	0.670 – B	0.664 – B	0.672 – B	0.000	0.002	No
12	Jamboree Rd/E. Coast Hwy (SR-1)	0.664 – B	0.841 – D	0.664 – B	0.843 – D	0.000	0.002	No

Note: V/C = volume to capacity ratio; SB = southbound; Deficient intersection operation shown in **bold**.

As shown in Table 12, with the addition of proposed project-generated trips, the study intersections are forecast to continue to operate at an acceptable LOS (LOS D or better) for forecast cumulative with project conditions according to City of Newport Beach performance criteria with the exception of the Newport Boulevard Southbound Ramps/West Coast Highway (SR-1) study intersection during the a.m. peak hour which is forecast to continue to operate at LOS E.



Not to Scale

Legend:

XX/XX AM/PM Peak Hour Volumes

...... Project Site Boundary

RBF

Forecast Cumulative With Project Conditions AM/PM Peak Hour Volumes

Exhibit 14

H:\pdata\10107807\Traffic\Exhibits\Exh14.ai

FEB/2011

As also shown in Table 12, based on City-established thresholds of significance, the addition of project-generated trips to the study intersections is forecast to result in no significant impacts for forecast cumulative with project conditions.

GENERAL PLAN AMENDMENT TRIP GENERATION ANALYSIS

The project site currently permits a 0.50 Floor Area Ratio (FAR) maximum. The project proposes to increase the maximum FAR on the project site to 0.68. This section calculates the proposed incremental increase in trips associated with the proposed increase in FAR at the project site.

Table 13 summarizes the incremental increase in square footage based on the proposed 0.68 FAR and the permitted 0.50 FAR.

Table 13
Incremental Increase in Square Footage Per Proposed Project Site FAR Increase

Land Use	Floor Area Ratio (FAR)	Land Use Square Footage Based on FAR
Proposed	0.68	23,015 square feet
Permitted	0.50	16,923 square feet
Proposed Net Incremental Square Footage Increase		**6,092 square feet**

As shown in Table 13, the total net incremental square footage increase associated with the increase of 0.18 in FAR at the project site to accommodate the proposed project is 6,092 square feet.

To calculate trips forecast to be generated by the net incremental square footage increase, *Institute of Transportation Engineers (ITE)* trip generation rates were utilized. Table 14 summarizes the *ITE* trip generation rates used to calculate the number of trips forecast to be generated by the net incremental square footage increase.

Table 14
Proposed Project Trip Rates

Land Use	Units	AM Peak Hour Rates			PM Peak Hour Rates			Daily Trip Rate
		In	Out	Total	In	Out	Total	
Specialty Retail	tsf	0.0	0.0	0.0	1.19	1.52	2.71	44.32

Source: *ITE Trip Generation Manual, 8th Edition*
Note: tsf = thousand square feet

Table 15 shows the incremental increase of trips forecast to be generated by the proposed project assuming the proposed increase in FAR of 0.18 at the project site.

Table 15
Incremental Increase in Trips Per Proposed Project Site FAR Increase

Land Use	AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips
	In	Out	Total	In	Out	Total	
6.092 tsf – Proposed Specialty Retail Square Footage Increase	0*	0*	0*	7	9	16	270
Proposed Incremental Trip Increase	**0***	**0***	**0***	**7**	**9**	**16**	**270**

Note: tsf = thousand square feet; *Zero a.m. peak hour trips since *ITE* a.m. peak hour rate for specialty retail is zero.

As shown in Table 15, based on the trip generation rates contained in Table 14, an increase in FAR of 0.18 at the project site is forecast to generate approximately 270 new daily trips, which includes approximately 0 new a.m. peak hour trips and approximately 16 new p.m. peak hour trips.

Therefore, the proposed increase in FAR of 0.18 at the project site to accommodate the proposed project is not anticipated to cause any significant traffic impacts due to the small incremental increase in daily and peak hour trips.

SITE ACCESS

The proposed project plans to consolidate the project access locations at West Coast Highway (SR-1) from the three current right-in/right-out access locations to one proposed right-in/right-out driveway access location and one right-turn out only driveway access location. Striping is also proposed along West Coast Highway (SR-1) to guide westbound through traffic away from the project access locations and to provide a refuge for buses at the relocated bus stop between the two project access locations. Exhibit 15 shows recommendations for the proposed site access to further reinforce one access location is for entering/exiting and one location is for exiting only.

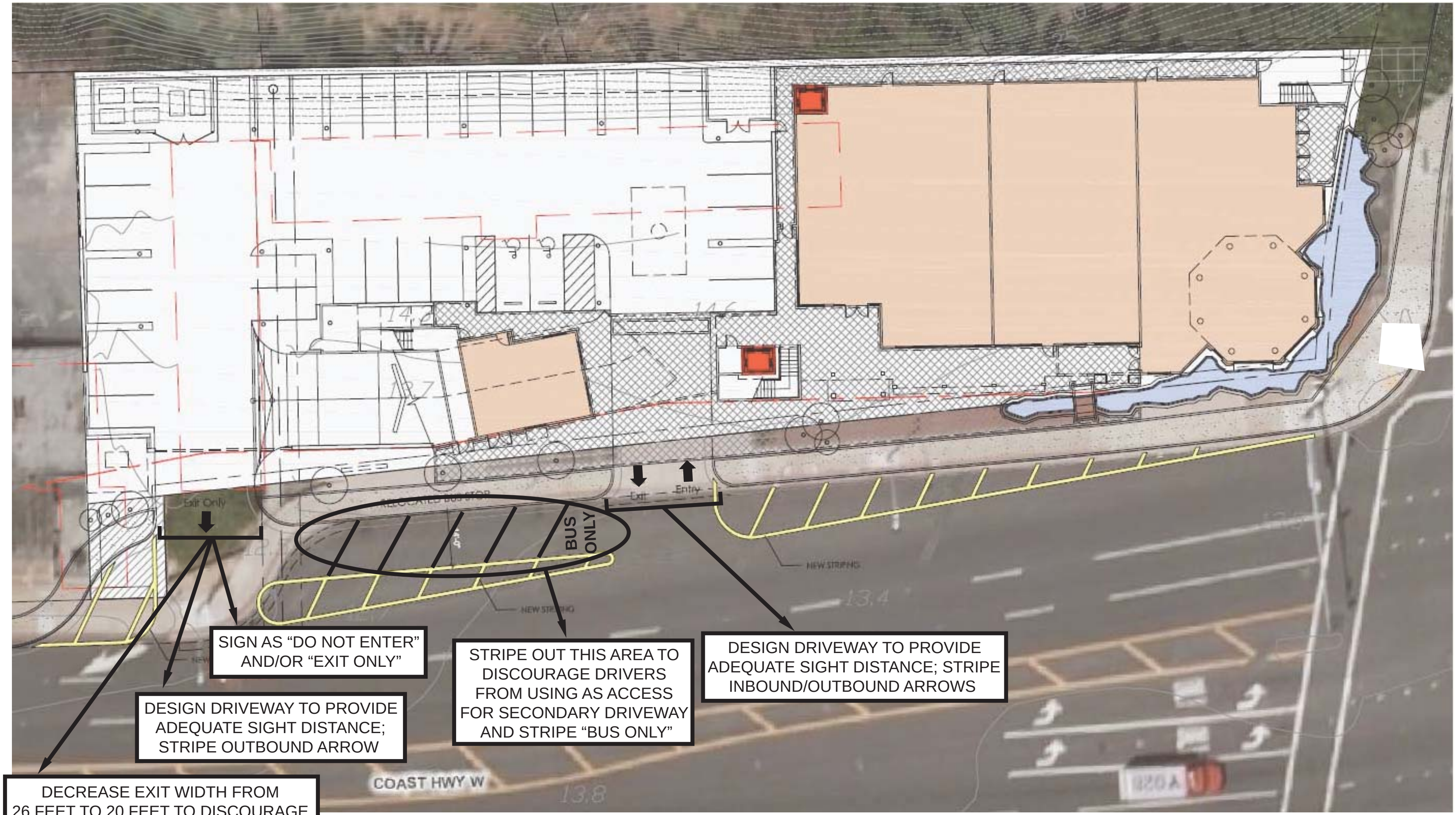
ORANGE COUNTY CONGESTION MANAGEMENT PROGRAM

The Orange County Congestion Management Program (CMP) states that if a project generating 1,600 or more trips/day will directly access, or is in close proximity to, a CMP Highway System link, a CMP traffic impact analysis is required. The proposed project is forecast to generate 1,533 trips per day; therefore, no CMP traffic impact analysis is required for the proposed project.

STATE HIGHWAY INTERSECTION ANALYSIS

This section evaluates the forecast impact of project-generated trips at the following State Highway study intersections:

- Newport Boulevard Southbound Ramps/West Coast Highway (SR-1);
- Riverside Avenue/West Coast Highway (SR-1);



SIGN AS “DO NOT ENTER” AND/OR “EXIT ONLY”

STRIPE OUT THIS AREA TO DISCOURAGE DRIVERS FROM USING AS ACCESS FOR SECONDARY DRIVEWAY AND STRIPE “BUS ONLY”

DESIGN DRIVEWAY TO PROVIDE ADEQUATE SIGHT DISTANCE; STRIPE INBOUND/OUTBOUND ARROWS

DESIGN DRIVEWAY TO PROVIDE ADEQUATE SIGHT DISTANCE; STRIPE OUTBOUND ARROW

DECREASE EXIT WIDTH FROM 26 FEET TO 20 FEET TO DISCOURAGE VEHICLES FROM ENTERING

Not to Scale

Proposed Project Site Access Recommendations

H:\pdata\10107807\Traffic\Exhibits\Exh15.ai

FEB/2011

Exhibit 15

- Tustin Avenue/West Coast Highway (SR-1);
- Balboa Bay Club Entrance/West Coast Highway (SR-1);
- Dover Drive/West Coast Highway (SR-1); and
- Bayside Drive/East Coast Highway (SR-1).

State Highway Intersection Analysis Methodology

Caltrans advocates use of Highway Capacity Manual (HCM) intersection analysis methodology to analyze the operation of signalized intersections. The HCM analysis methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding stopped delay experienced per vehicle as shown in Table 16.

Table 16
State Highway Intersection LOS & Delay Ranges

LOS	**Delay (in seconds)**
	Signalized Intersections
A	< 10.0
B	> 10.0 to < 20.0
C	> 20.0 to < 35.0
D	> 35.0 to < 55.0
E	> 55.0 to < 80.0
F	> 80.0

Source: Transportation Research Board, *Highway Capacity Manual*, HCM 2000 Edition (Washington D.C., 2000).

Level of service is based on the average stopped delay per vehicle for all movements of signalized intersections. The Caltrans target for peak hour intersection operation is LOS C or better.

State Highway Intersection Thresholds of Significance

While Caltrans has not established traffic thresholds of significance at State Highway intersections, this traffic analysis utilizes the following traffic threshold of significance:

- A significant project impact occurs at a State Highway study intersection when the addition of project-generated trips causes the peak hour level of service of the study intersection to change from acceptable operation (LOS A, B, or C) to deficient operation (LOS D, E or F).

Existing Conditions

Table 17 summarizes existing a.m. peak hour and p.m. peak hour LOS of the State Highway study intersections; detailed LOS analysis sheets are contained in Appendix B.

Table 17
State Highway
Existing Conditions AM & PM Peak Hour Intersection LOS

Int. No.	Study Intersection	AM Peak Hour	PM Peak Hour
		Delay – LOS	Delay – LOS
6	Newport Blvd SB Ramps/W. Coast Hwy (SR-1)	15.6 – B	18.0 – B
7	Riverside Ave/W. Coast Hwy (SR-1)	12.3 – B	16.0 – B
8	Tustin Ave/W. Coast Hwy (SR-1)	3.4 – A	6.4 – A
9	Balboa Bay Dwy/W. Coast Hwy (SR-1)	4.5 – A	4.8 – A
10	Dover Dr/W. Coast Hwy (SR-1)	20.6 – C	22.1 – C
11	Bayside Dr/E. Coast Hwy (SR-1)	12.2 – B	12.6 – B
12	Jamboree Rd/E. Coast Hwy (SR-1)	27.3 – C	28.2 – C

Note: SB = southbound.

As shown in Table 17, the State Highway study intersections are currently operating at a acceptable LOS (LOS C or better) according to Caltrans performance criteria.

Forecast Existing Plus Project Conditions

Table 18 summarizes forecast existing plus project conditions a.m. peak hour and p.m. peak hour LOS of the State Highway study intersections; detailed LOS analysis sheets are contained in Appendix B.

Table 18
State Highway Forecast Existing Plus Project Conditions AM & PM Peak Intersection Hour LOS

Int. No.	Study Intersection	Existing Conditions		Forecast Existing Plus Project Conditions		Significant Impact?
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
		Delay – LOS	Delay – LOS	Delay – LOS	Delay – LOS	
6	Newport Blvd SB Ramps/W. Coast Hwy (SR-1)	15.6 – B	18.0 – B	15.6 – B	18.0 – B	No
7	Riverside Ave/W. Coast Hwy (SR-1)	12.3 – B	16.0 – B	12.3 – B	16.0 – B	No
8	Tustin Ave/W. Coast Hwy (SR-1)	3.4 – A	6.4 – A	3.4 – A	6.4 – A	No
9	Balboa Bay Dwy/W. Coast Hwy (SR-1)	4.5 – A	4.8 – A	4.6 – A	5.3 – A	No
10	Dover Dr/W. Coast Hwy (SR-1)	20.6 – C	22.1 – C	20.7 – C	22.7 – C	No
11	Bayside Dr/E. Coast Hwy (SR-1)	12.2 – B	12.6 – B	12.3 – B	12.7 – B	No
12	Jamboree Rd/E. Coast Hwy (SR-1)	27.3 – C	28.2 – C	27.3 – C	28.2 – C	No

Note: SB = southbound.

As shown in Table 18, with the addition of project-generated trips, the State Highway study intersections are forecast to operate at an acceptable LOS (LOS C or better) according to Caltrans performance criteria for forecast existing plus project conditions.

As also shown in Table 18, the addition of project-generated trips is forecast to result in no significant impacts at the State Highway study intersections for forecast existing plus project conditions.

Forecast Cumulative Without Project Conditions

Table 19 summarizes forecast cumulative without project conditions a.m. peak hour and p.m. peak hour LOS of the State Highway study intersections; detailed LOS analysis sheets are contained in Appendix B.

Table 19
State Highway Forecast Cumulative Without Project Conditions AM & PM Peak Hour Intersection LOS

Int. No.	Study Intersection	AM Peak Hour	PM Peak Hour
		Delay – LOS	Delay – LOS
6	Newport Blvd SB Ramps/W. Coast Hwy (SR-1)	23.3 – C	23.9 – C
7	Riverside Ave/W. Coast Hwy (SR-1)	12.7 – B	16.6 – B
8	Tustin Ave/W. Coast Hwy (SR-1)	3.7 – A	6.5 – A
9	Balboa Bay Dwy/W. Coast Hwy (SR-1)	5.0 – A	5.7 – A
10	Dover Dr/W. Coast Hwy (SR-1)	21.0 – C	23.7 – C
11	Bayside Dr/E. Coast Hwy (SR-1)	14.1 – B	15.1 – B
12	Jamboree Rd/E. Coast Hwy (SR-1)	29.0 – C	32.6 – C

Note: SB = southbound.

As shown in Table 19, the State Highway study intersections are forecast to operate at an acceptable LOS (LOS C or better) according to Caltrans performance criteria for forecast cumulative without project conditions.

Forecast Cumulative With Project Conditions

Table 20 summarizes forecast cumulative with project conditions a.m. peak hour and p.m. peak hour LOS of the State Highway study intersections; detailed LOS analysis sheets are contained in Appendix B.

Table 20
State Highway Forecast Cumulative With Project Conditions AM & PM Peak Intersection Hour LOS

Int. No.	Study Intersection	Forecast Cumulative Without Project Conditions		Forecast Cumulative With Project Conditions		Significant Impact?
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
		Delay – LOS	Delay – LOS	Delay – LOS	Delay – LOS	
6	Newport Blvd SB Ramps/W. Coast Hwy (SR-1)	23.3 – C	23.9 – C	23.3 – C	24.0 – C	No
7	Riverside Ave/W. Coast Hwy (SR-1)	12.7 – B	16.6 – B	12.7 – B	16.6 – B	No
8	Tustin Ave/W. Coast Hwy (SR-1)	3.7 – A	6.5 – A	3.7 – A	6.5 – A	No
9	Balboa Bay Dwy/W. Coast Hwy (SR-1)	5.0 – A	5.7 – A	5.0 – A	6.3 – A	No
10	Dover Dr/W. Coast Hwy (SR-1)	21.0 – C	23.7 – C	21.1 – C	24.4 – C	No
11	Bayside Dr/E. Coast Hwy (SR-1)	14.1 – B	15.1 – B	14.2 – B	15.2 – B	No
12	Jamboree Rd/E. Coast Hwy (SR-1)	29.0 – C	32.6 – C	29.0 – C	32.6 – C	No

Note: SB = southbound.

As shown in Table 20, with the addition of project-generated trips, the State Highway study intersections are forecast to operate at an acceptable LOS (LOS C or better) according to Caltrans performance criteria for forecast cumulative with project conditions.

As also shown in Table 20, the addition of project-generated trips is forecast to result in no significant impacts at the State Highway study intersections for forecast cumulative with project conditions.

MITIGATION MEASURES

No traffic mitigation measures are required for the proposed project since no significant traffic impacts are forecast to occur based on agency thresholds of significance.

CONCLUSIONS

The proposed project is forecast to generate approximately 1,292 net new daily trips, which includes approximately 16 net new a.m. peak hour trips and approximately 70 net new p.m. peak hour trips as analyzed in the TPO analysis. The proposed project is also forecast to generate approximately 1,533 daily trips, which includes approximately 48 a.m. peak hour trips and approximately 84 p.m. peak hour trips as analyzed in the cumulative analysis.

Based on City of Newport Beach established thresholds of significance, the addition of project-generated trips is forecast to result in no significant TPO impacts at the study intersections for forecast year 2013 with project conditions.

Also, based on City established thresholds of significance, the addition of project-generated trips to the study intersections is forecast to result in no significant impacts for forecast existing plus project conditions or forecast cumulative with project conditions.

No traffic mitigation measures are required for the proposed project since no significant traffic impacts are forecast to occur based on agency thresholds of significance.

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APPENDIX A
Existing Count Data

Intersection Counts

CH 2635

Transportation Studies, Inc.
2680 Walnut Avenue
Suite C
Tustin, CA. 92780

City: NEWPORT BEACH
N-S Direction: TUSTIN AVENUE
E-W Direction: COAST HIGHWAY

File Name : H0903066
Site Code : 00000000
Start Date : 3/19/2009
Page No : 1

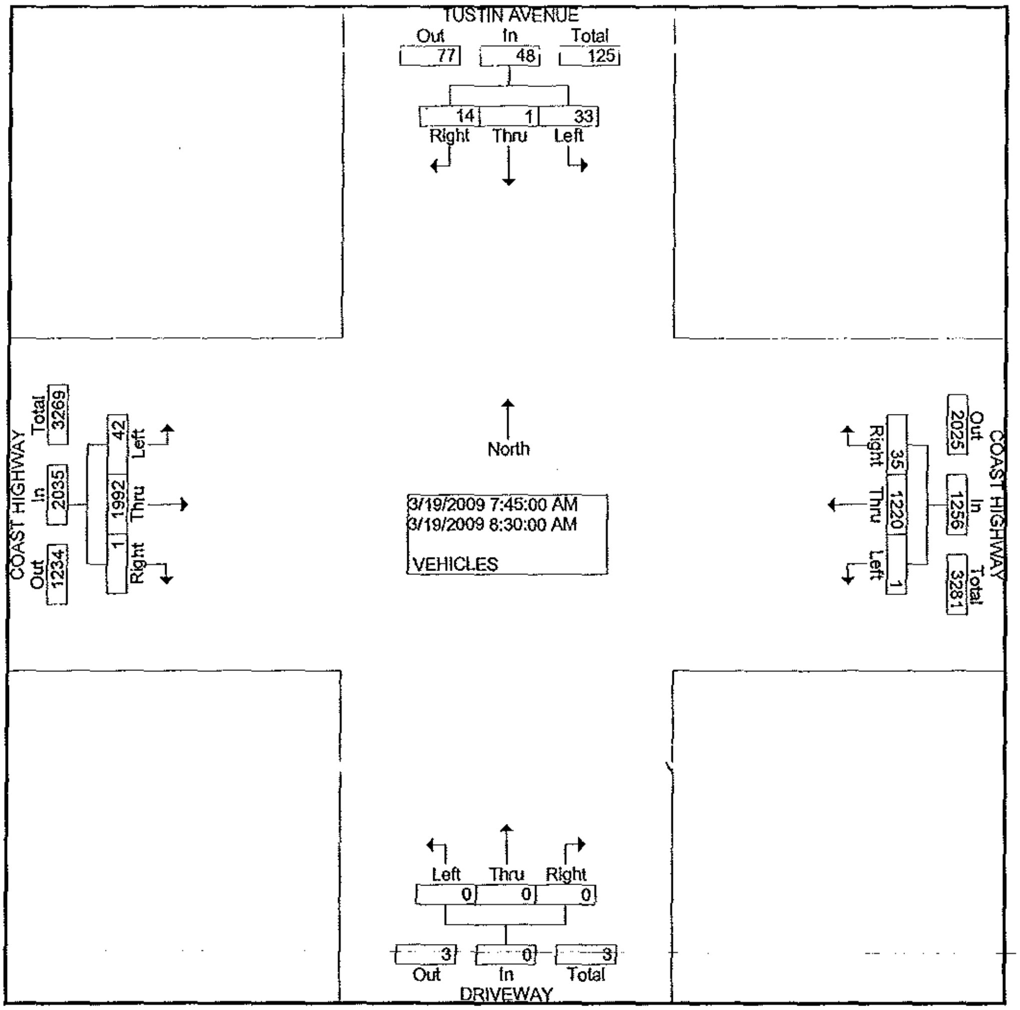
Groups Printed- VEHICLES

	TUSTIN AVENUE			COAST HIGHWAY			DRIVEWAY			COAST HIGHWAY			
	Southbound			Westbound			Northbound			Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	0	0	2	1	130	0	0	0	0	0	217	2	352
07:15 AM	2	1	5	2	209	0	0	0	0	0	346	3	568
07:30 AM	1	0	5	4	205	0	0	0	0	0	450	11	676
07:45 AM	3	1	5	17	281	1	0	0	0	0	520	15	843
Total	6	2	17	24	825	1	0	0	0	0	1533	31	2439
08:00 AM	4	0	8	8	305	0	0	0	0	0	520	12	857
08:15 AM	3	0	12	3	317	0	0	0	0	1	472	11	819
08:30 AM	4	0	8	7	317	0	0	0	0	0	480	4	820
08:45 AM	0	0	10	17	312	0	0	0	0	1	487	9	836
Total	11	0	38	35	1251	0	0	0	0	2	1959	36	3332
*** BREAK ***													
04:30 PM	1	0	11	10	426	0	0	0	0	2	297	30	777
04:45 PM	19	0	12	14	505	0	0	0	0	1	321	39	911
Total	20	0	23	24	931	0	0	0	0	3	618	69	1688
05:00 PM	12	0	12	13	521	0	0	0	0	0	337	50	945
05:15 PM	4	0	19	14	574	0	0	0	0	6	362	12	991
05:30 PM	7	0	12	12	548	0	0	1	0	8	332	10	930
05:45 PM	4	0	12	13	587	0	2	0	0	6	345	22	991
Total	27	0	55	52	2230	0	2	1	0	20	1376	94	3857
06:00 PM	5	0	15	11	508	0	0	0	0	3	326	18	886
06:15 PM	2	0	15	12	471	0	1	0	0	5	274	22	802
Grand Total	71	2	163	158	6216	1	3	1	0	33	6086	270	13004
Apprch %	30.1	0.8	69.1	2.5	97.5	0.0	75.0	25.0	0.0	0.5	95.3	4.2	
Total %	0.5	0.0	1.3	1.2	47.8	0.0	0.0	0.0	0.0	0.3	46.8	2.1	

Transportation Studies, Inc.
2680 Walnut Avenue
Suite C
Tustin, CA. 92780

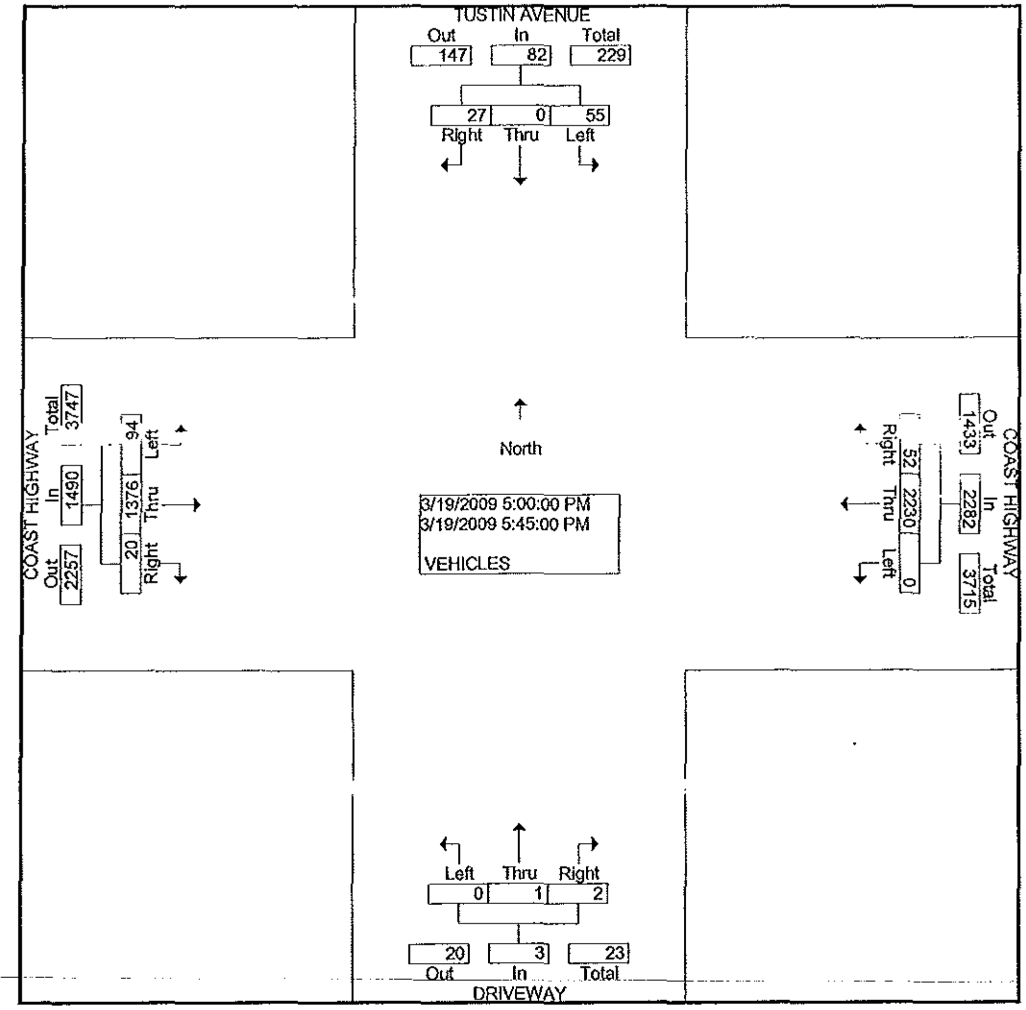
File Name : H0903066
Site Code : 00000000
Start Date : 3/19/2009
Page No : 2

	TUSTIN AVENUE Southbound				COAST HIGHWAY Westbound				DRIVEWAY Northbound				COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:45 AM																
Volume	14	1	33	48	35	1220	1	1256	0	0	0	0	1	1992	42	2035	3339
Percent	29.2	2.1	68.8		2.8	97.1	0.1		0.0	0.0	0.0		0.0	97.9	2.1		
08:00 Volume	4	0	8	12	8	305	0	313	0	0	0	0	0	520	12	532	857
Peak Factor																	0.974
High Int.	08:15 AM				08:30 AM				6:45:00 AM				07:45 AM				
Volume	3	0	12	15	7	317	0	324	0	0	0	0	0	520	15	535	
Peak Factor				0.800				0.969								0.951	



File Name : H0903066
Site Code : 00000000
Start Date : 3/19/2009
Page No : 3

	TUSTIN AVENUE Southbound				COAST HIGHWAY Westbound				DRIVEWAY Northbound				COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 04:30 PM to 06:15 PM - Peak 1 of 1																	
Intersection	05:00 PM																
Volume	27	0	55	82	52	2230	0	2282	2	1	0	3	20	1376	94	1490	3857
Percent	32.9	0.0	67.1		2.3	97.7	0.0		66.7	33.3	0.0		1.3	92.3	6.3		
05:45 Volume	4	0	12	16	13	587	0	600	2	0	0	2	6	345	22	373	991
Peak Factor																	0.973
High Int.	05:00 PM				05:45 PM				05:45 PM				05:00 PM				
Volume	12	0	12	24	13	587	0	600	2	0	0	2	0	337	50	387	
Peak Factor				0.854				0.951				0.375				0.963	



CH 2630

Transportation Studies, Inc.
2680 Walnut Avenue
Suite C
Tustin, CA. 92780

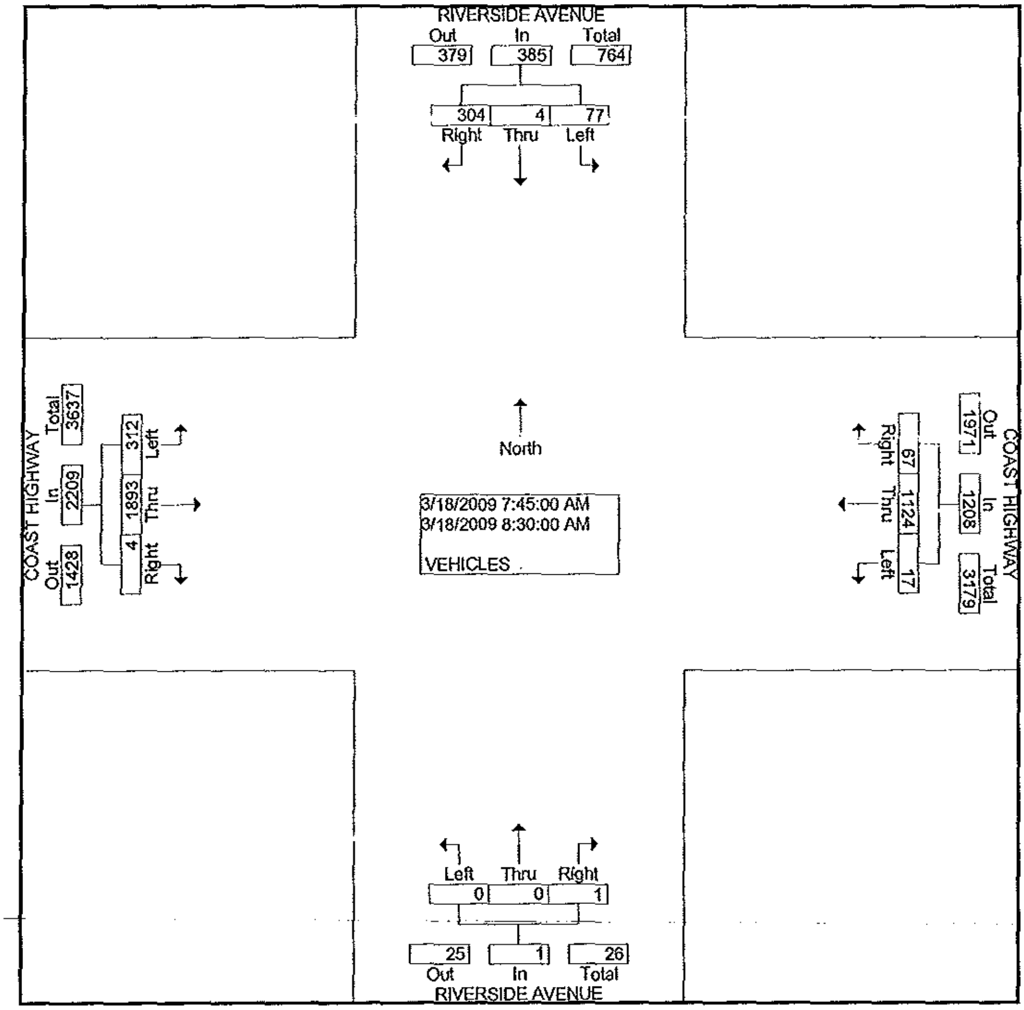
City: NEWPORT BEACH
N-S Direction: RIVERSIDE AVENUE
E-W Direction: COAST HIGHWAY

File Name : H0903065
Site Code : 00000000
Start Date : 3/18/2009
Page No : 1

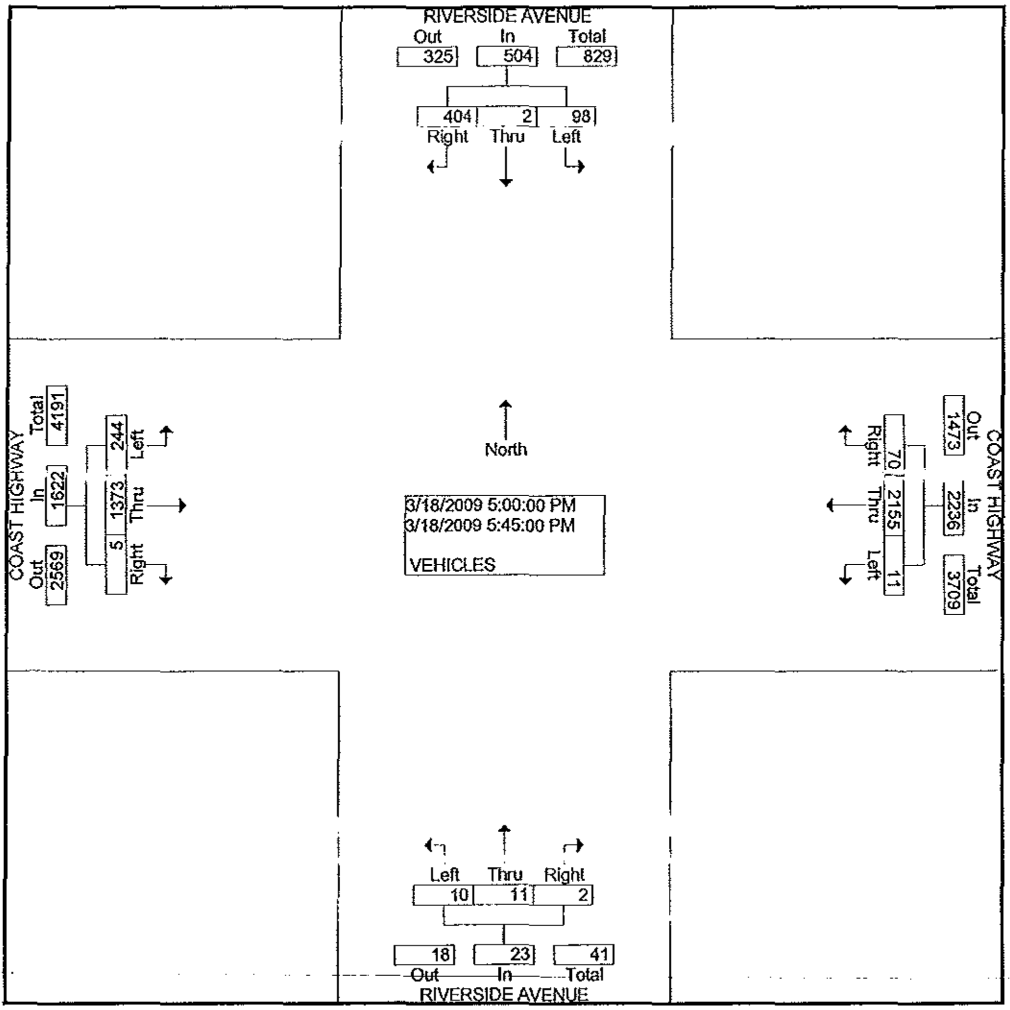
Groups Printed- VEHICLES

	RIVERSIDE AVENUE Southbound			COAST HIGHWAY Westbound			RIVERSIDE AVENUE Northbound			COAST HIGHWAY Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	24	1	5	6	181	2	0	0	0	0	255	27	501
07:15 AM	42	0	15	14	201	0	0	0	0	1	375	58	706
07:30 AM	74	0	16	17	201	0	0	0	0	0	422	88	818
07:45 AM	103	0	18	15	257	4	0	0	0	1	472	81	951
Total	243	1	54	52	840	6	0	0	0	2	1524	254	2976
08:00 AM	77	0	14	18	270	4	0	0	0	1	479	71	934
08:15 AM	49	3	23	16	297	5	0	0	0	1	470	74	938
08:30 AM	75	1	22	18	300	4	1	0	0	1	472	86	980
08:45 AM	67	2	16	11	288	5	0	2	0	4	445	78	918
Total	268	6	75	63	1155	18	1	2	0	7	1866	309	3770
*** BREAK ***													
04:30 PM	95	1	19	19	447	2	0	2	3	5	394	68	1055
04:45 PM	82	0	22	22	470	3	3	0	2	3	319	61	987
Total	177	1	41	41	917	5	3	2	5	8	713	129	2042
05:00 PM	95	0	24	24	506	2	0	0	0	1	332	64	1048
05:15 PM	106	0	27	18	565	4	0	2	4	1	351	67	1145
05:30 PM	100	0	27	11	530	2	0	4	4	3	354	61	1096
05:45 PM	103	2	20	17	554	3	2	5	2	0	336	52	1096
Total	404	2	98	70	2155	11	2	11	10	5	1373	244	4385
06:00 PM	77	0	16	5	534	2	1	2	3	6	316	46	1008
06:15 PM	75	0	19	4	432	4	1	2	3	5	320	52	917
Grand Total	1244	10	303	235	6033	46	8	19	21	33	6112	1034	15098
Apprch %	79.9	0.6	19.5	3.7	95.5	0.7	16.7	39.6	43.8	0.5	85.1	14.4	
Total %	8.2	0.1	2.0	1.6	40.0	0.3	0.1	0.1	0.1	0.2	40.5	6.8	

	RIVERSIDE AVENUE Southbound				COAST HIGHWAY Westbound				RIVERSIDE AVENUE Northbound				COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:45 AM																
Volume	304	4	77	385	67	1124	17	1208	1	0	0	1	4	1893	312	2209	3803
Percent	79.0	1.0	20.0		5.5	93.0	1.4		100.0	0.0	0.0		0.2	85.7	14.1		
08:30 Volume	75	1	22	98	18	300	4	322	1	0	0	1	1	472	86	559	980
Peak Factor																	0.970
High Int.	07:45 AM				08:30 AM				08:30 AM				08:30 AM				
Volume	103	0	18	121	18	300	4	322	1	0	0	1	1	472	86	559	
Peak Factor				0.795				0.938				0.250				0.988	



	RIVERSIDE AVENUE Southbound				COAST HIGHWAY Westbound				RIVERSIDE AVENUE Northbound				COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 04:30 PM to 06:15 PM - Peak 1 of 1																	
Intersection	05:00 PM																
Volume	404	2	98	504	70	2155	11	2236	2	11	10	23	5	1373	244	1622	4385
Percent	80.2	0.4	19.4		3.1	96.4	0.5		8.7	47.8	43.5		0.3	84.6	15.0		
05:15 Volume	106	0	27	133	18	565	4	587	0	2	4	6	1	351	67	419	1145
Peak Factor																	0.957
High Int.	05:15 PM				05:15 PM				05:45 PM				05:15 PM				
Volume	106	0	27	133	18	565	4	587	2	5	2	9	1	351	67	419	
Peak Factor				0.947				0.952				0.639				0.968	



CH 5440

Transportation Studies, Inc.
2680 Walnut Avenue, Suite C
Tustin, CA. 92780

City: NEWPORT BEACH
N-S Direction: BAYSIDE DRIVE
E-W Direction: COAST HIGHWAY

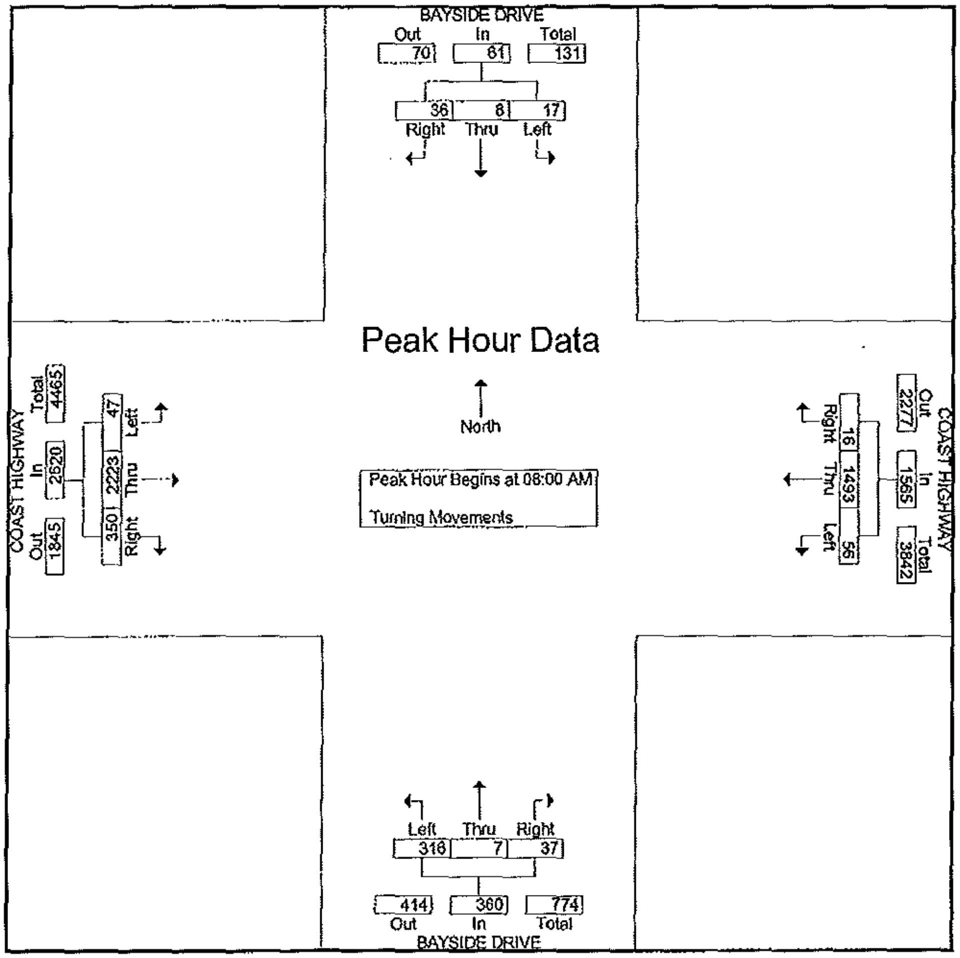
File Name : H1002046
Site Code : 00005423
Start Date : 3/10/2010
Page No : 1

Groups Printed- Turning Movements

	BAYSIDE DRIVE Southbound			**COAST HIGHWAY Westbound**			**BAYSIDE DRIVE Northbound**			**COAST HIGHWAY Eastbound**			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	5	3	9	3	177	11	6	1	39	66	299	7	626
07:15 AM	9	2	11	1	190	18	7	3	32	67	361	11	712
07:30 AM	13	2	3	2	260	12	8	0	49	49	440	9	847
07:45 AM	11	4	5	5	378	13	11	0	66	77	574	15	1159
Total	38	11	28	11	1005	54	32	4	186	259	1674	42	3344
08:00 AM	5	2	4	2	363	15	8	2	79	83	497	10	1070
08:15 AM	12	3	5	4	397	10	6	4	68	96	526	13	1144
08:30 AM	13	2	6	6	348	19	11	1	79	71	577	8	1141
08:45 AM	6	1	2	4	385	12	12	0	90	100	623	16	1251
Total	36	8	17	16	1493	56	37	7	316	350	2223	47	4606
*** BREAK ***													
04:30 PM	16	5	9	7	441	14	10	1	100	88	432	11	1134
04:45 PM	13	1	8	11	628	12	7	0	78	107	463	20	1348
Total	29	6	17	18	1069	26	17	1	178	195	895	31	2482
05:00 PM	10	3	8	8	657	13	8	2	84	102	442	18	1355
05:15 PM	10	4	5	12	792	29	11	2	80	94	506	11	1556
05:30 PM	9	3	5	13	721	19	7	3	79	107	480	13	1459
05:45 PM	13	2	6	9	644	20	8	2	78	106	453	11	1352
Total	42	12	24	42	2814	81	34	9	321	409	1881	53	5722
06:00 PM	10	0	0	6	653	17	11	2	63	83	529	9	1383
06:15 PM	9	1	7	4	655	12	6	0	69	86	413	9	1271
Grand Total	164	38	93	97	7689	246	137	23	1133	1382	7615	191	18808
Apprch %	55.6	12.9	31.5	1.2	95.7	3.1	10.6	1.8	87.6	15	82.9	2.1	
Total %	0.9	0.2	0.5	0.5	40.9	1.3	0.7	0.1	6	7.3	40.5	1	

File Name : H1002046
Site Code : 00005423
Start Date : 3/10/2010
Page No : 2

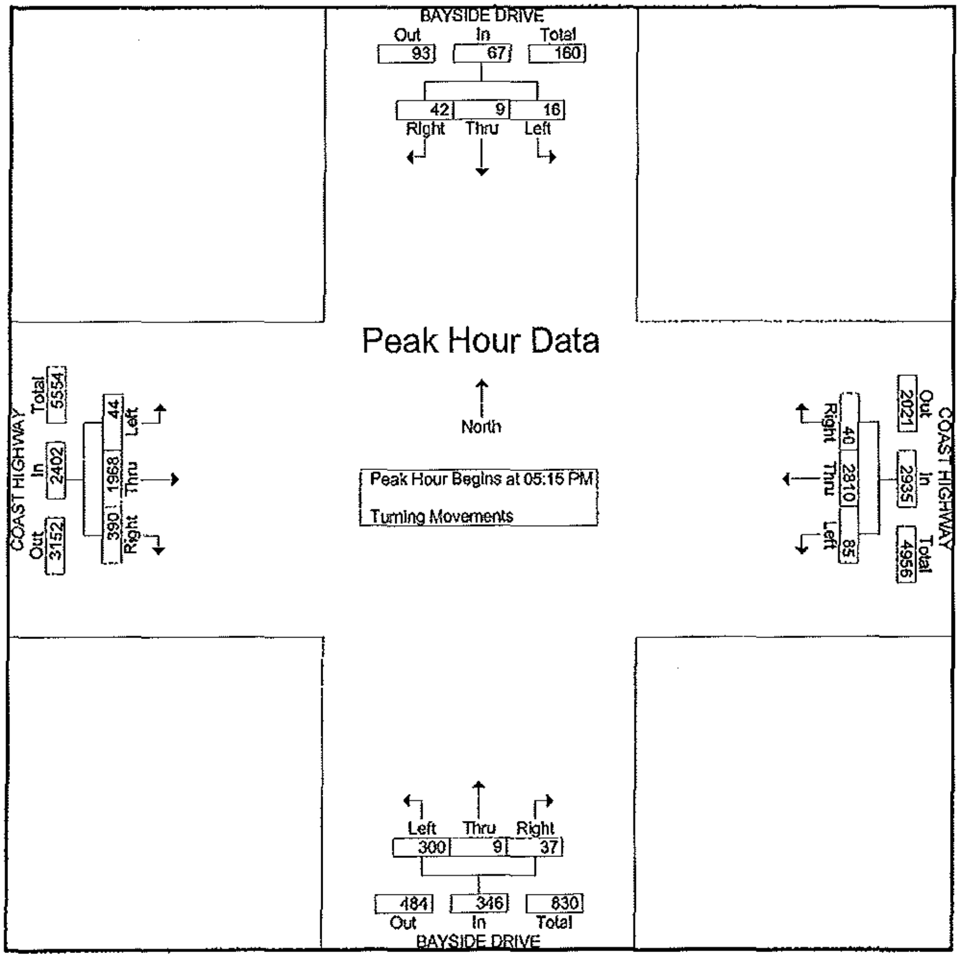
	BAYSIDE DRIVE Southbound				COAST HIGHWAY Westbound				BAYSIDE DRIVE Northbound				COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	5	2	4	11	2	363	15	380	8	2	79	89	83	497	10	590	1070
08:15 AM	12	3	5	20	4	397	10	411	6	4	68	78	96	526	13	635	1144
08:30 AM	13	2	6	21	6	348	19	373	11	1	79	91	71	577	8	656	1141
08:45 AM	6	1	2	9	4	385	12	401	12	0	90	102	100	623	16	739	1251
Total Volume	36	8	17	61	16	1493	56	1565	37	7	316	360	350	2223	47	2620	4606
% App. Total	59	13.1	27.9		1	95.4	3.6		10.3	1.9	87.8		13.4	84.8	1.8		
PHF	.692	.667	.708	.726	.667	.940	.737	.952	.771	.438	.878	.882	.875	.892	.734	.886	.920



Transportation Studies, Inc.
2680 Walnut Avenue, Suite C
Tustin, CA. 92780

File Name : H1002046
Site Code : 00005423
Start Date : 3/10/2010
Page No : 3

	BAYSIDE DRIVE Southbound				COAST HIGHWAY Westbound				BAYSIDE DRIVE Northbound				COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:15 PM																	
05:15 PM	10	4	5	19	12	792	29	833	11	2	80	93	94	506	11	611	1556
05:30 PM	9	3	5	17	13	721	19	753	7	3	79	89	107	480	13	600	1459
05:45 PM	13	2	6	21	9	644	20	673	8	2	78	88	106	453	11	570	1352
06:00 PM	10	0	0	10	6	653	17	676	11	2	63	76	83	529	9	621	1383
Total Volume	42	9	16	67	40	2810	85	2935	37	9	300	346	390	1968	44	2402	5750
% App. Total	62.7	13.4	23.9		1.4	95.7	2.9		10.7	2.6	86.7		16.2	81.9	1.8		
PHF	.808	.563	.667	.798	.769	.887	.733	.881	.841	.750	.938	.930	.911	.930	.846	.967	.924



CH 5055

Transportation Studies, Inc.
2680 Walnut Avenue, Suite C
Tustin, CA. 92780

City: NEWPORT BEACH
N-S Direction: JAMBOREE ROAD
E-W Direction: COAST HIGHWAY

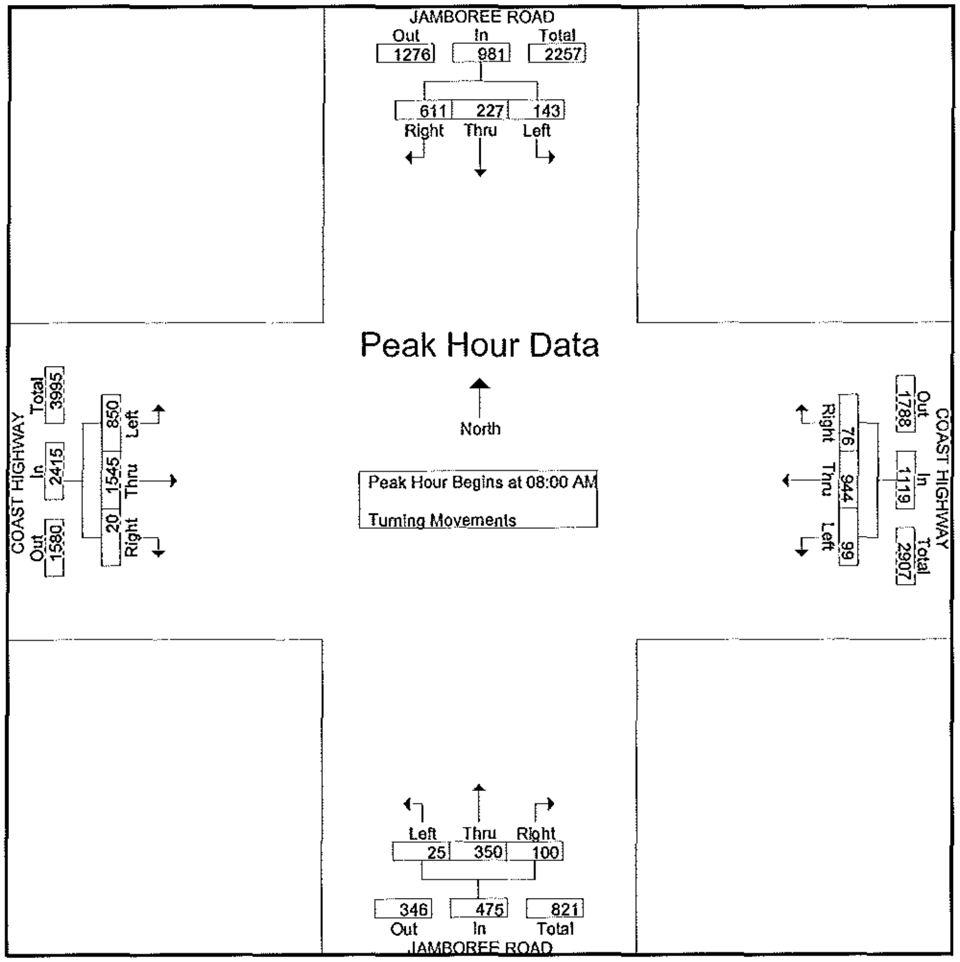
File Name : H1002048
Site Code : 00005053
Start Date : 3/16/2010
Page No : 1

Groups Printed- Turning Movements

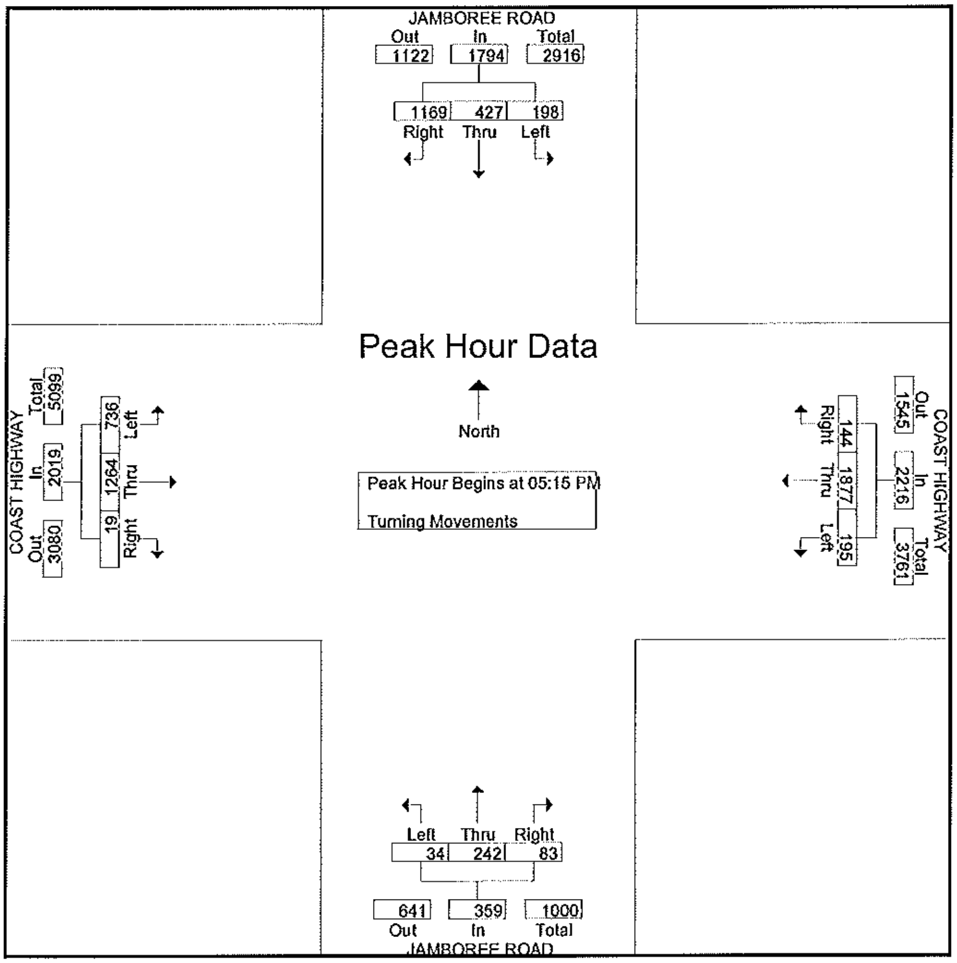
	JAMBOREE ROAD Southbound			**COAST HIGHWAY Westbound**			**JAMBOREE ROAD Northbound**			**COAST HIGHWAY Eastbound**			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	78	47	24	11	105	20	10	60	4	1	255	99	714
07:15 AM	75	32	25	29	137	15	16	63	2	1	245	133	773
07:30 AM	107	37	31	21	108	11	16	131	8	2	257	148	877
07:45 AM	161	56	37	11	232	20	17	76	3	0	354	234	1201
Total	421	172	117	72	582	66	59	330	17	4	1111	614	3565
08:00 AM	151	56	41	17	257	22	28	63	2	1	380	205	1223
08:15 AM	169	57	25	18	229	25	23	97	1	5	383	214	1246
08:30 AM	125	60	43	15	221	26	21	110	5	4	361	198	1189
08:45 AM	166	54	34	26	237	26	28	80	17	10	421	233	1332
Total	611	227	143	76	944	99	100	350	25	20	1545	850	4990
*** BREAK ***													
04:30 PM	190	95	33	22	382	57	19	52	7	11	392	189	1449
04:45 PM	228	102	43	61	479	39	24	66	5	7	344	182	1580
Total	418	197	76	83	861	96	43	118	12	18	736	371	3029
05:00 PM	238	103	41	41	418	48	21	84	5	5	320	192	1516
05:15 PM	284	87	53	50	544	51	24	58	4	3	329	183	1670
05:30 PM	291	101	52	36	473	33	25	80	13	3	286	213	1606
05:45 PM	293	110	41	24	436	74	19	57	8	7	320	161	1550
Total	1106	401	187	151	1871	206	89	279	30	18	1255	749	6342
06:00 PM	301	129	52	34	424	37	15	47	9	6	329	179	1562
06:15 PM	252	104	52	34	365	56	25	71	2	8	353	182	1504
Grand Total	3109	1230	627	450	5047	560	331	1195	95	74	5329	2945	20992
Apprch %	62.6	24.8	12.6	7.4	83.3	9.2	20.4	73.7	5.9	0.9	63.8	35.3	
Total %	14.8	5.9	3	2.1	24	2.7	1.6	5.7	0.5	0.4	25.4	14	

File Name : H1002048
Site Code : 00005053
Start Date : 3/16/2010

	JAMBOREE ROAD Southbound				COAST HIGHWAY Westbound				JAMBOREE ROAD Northbound				COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	151	56	41	248	17	**257**	22	**296**	**28**	63	2	93	1	380	205	586	1223
08:15 AM	**169**	57	25	251	18	229	25	272	23	97	1	121	5	383	214	602	1246
08:30 AM	125	**60**	**43**	228	15	221	**26**	262	21	**110**	5	**136**	4	361	198	563	1189
08:45 AM	166	54	34	**254**	**26**	237	26	289	28	80	**17**	125	**10**	**421**	**233**	**664**	**1332**
Total Volume	611	227	143	981	76	944	99	1119	100	350	25	475	20	1545	850	2415	4990
% App. Total	62.3	23.1	14.6		6.8	84.4	8.8		21.1	73.7	5.3		0.8	64	35.2		
PHF	.904	.946	.831	.966	.731	.918	.952	.945	.893	.795	.368	.873	.500	.917	.912	.909	.937



	JAMBOREE ROAD				COAST HIGHWAY				JAMBOREE ROAD				COAST HIGHWAY				
	Southbound				Westbound				Northbound				Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:15 PM																	
05:15 PM	284	87	**53**	424	**50**	**544**	51	**645**	24	58	4	86	3	**329**	183	**515**	**1670**
05:30 PM	291	101	52	444	36	473	33	542	**25**	**80**	**13**	**118**	3	286	**213**	502	1606
05:45 PM	293	110	41	444	24	436	74	534	19	57	8	84	7	320	161	488	1550
06:00 PM	**301**	**129**	52	**482**	34	424	37	495	15	47	9	71	6	329	179	514	1562
Total Volume	1169	427	198	1794	144	1877	195	2216	83	242	34	359	19	1264	736	2019	6388
% App. Total	65.2	23.8	11		6.5	84.7	8.8		23.1	67.4	9.5		0.9	62.6	36.5		
PHF	.971	.828	.934	.930	.720	.863	.659	.859	.830	.756	.654	.761	.679	.960	.864	.980	.956



123585

Transportation Studies, Inc.
2680 Walnut Avenue
Suite C
Tustin, CA. 92780

City: NEWPORT BEACH
N-S Direction: IRVINE AVENUE
E-W Direction: DOVER DR/19TH ST

File Name : H0903069
Site Code : 00000000
Start Date : 3/18/2009
Page No : 1

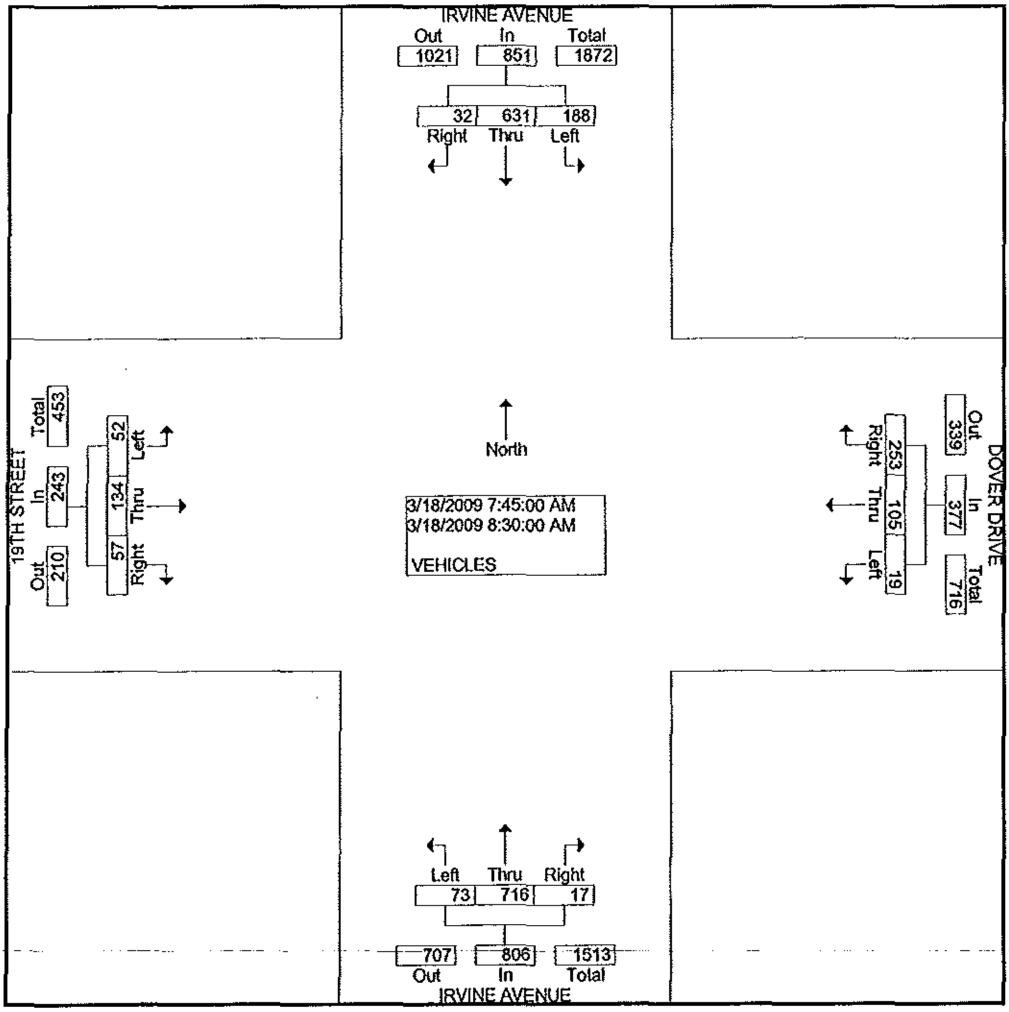
Groups Printed- VEHICLES

	IRVINE AVENUE Southbound			DOVER DRIVE Westbound			IRVINE AVENUE Northbound			19TH STREET Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	0	117	19	23	10	4	0	85	9	6	22	11	306
07:15 AM	3	128	20	37	12	2	0	115	9	9	30	9	374
07:30 AM	5	183	35	58	13	3	1	142	15	7	37	14	513
07:45 AM	10	189	40	79	26	7	6	161	15	12	32	13	590
Total	18	617	114	197	61	16	7	503	48	34	121	47	1783
08:00 AM	9	156	46	66	29	3	3	169	13	8	21	16	539
08:15 AM	3	141	51	48	22	2	5	178	19	18	35	10	532
08:30 AM	10	145	51	60	28	7	3	208	26	19	46	13	616
08:45 AM	9	120	45	72	27	2	4	201	17	19	21	19	556
Total	31	562	193	246	106	14	15	756	75	64	123	58	2243
*** BREAK ***													
04:30 PM	15	210	40	47	48	1	1	154	50	16	17	8	607
04:45 PM	16	202	43	55	34	7	1	171	22	19	27	10	607
Total	31	412	83	102	82	8	2	325	72	35	44	18	1214
05:00 PM	14	249	46	54	51	12	0	175	21	13	29	14	678
05:15 PM	15	297	59	66	44	12	1	177	24	17	23	20	755
05:30 PM	21	318	51	66	45	6	1	200	23	13	34	18	796
05:45 PM	20	303	49	58	38	12	1	185	21	20	28	14	749
Total	70	1167	205	244	178	42	3	737	89	63	114	66	2978
06:00 PM	22	288	52	63	21	7	0	174	21	17	43	10	718
06:15 PM	18	279	46	53	48	6	0	134	16	8	40	8	656
Grand Total	190	3325	693	905	496	93	27	2629	321	221	485	207	9592
Apprch %	4.5	79.0	16.5	60.6	33.2	6.2	0.9	88.3	10.8	24.2	53.1	22.7	
Total %	2.0	34.7	7.2	9.4	5.2	1.0	0.3	27.4	3.3	2.3	5.1	2.2	

Transportation Studies, Inc.
2680 Walnut Avenue
Suite C
Tustin, CA. 92780

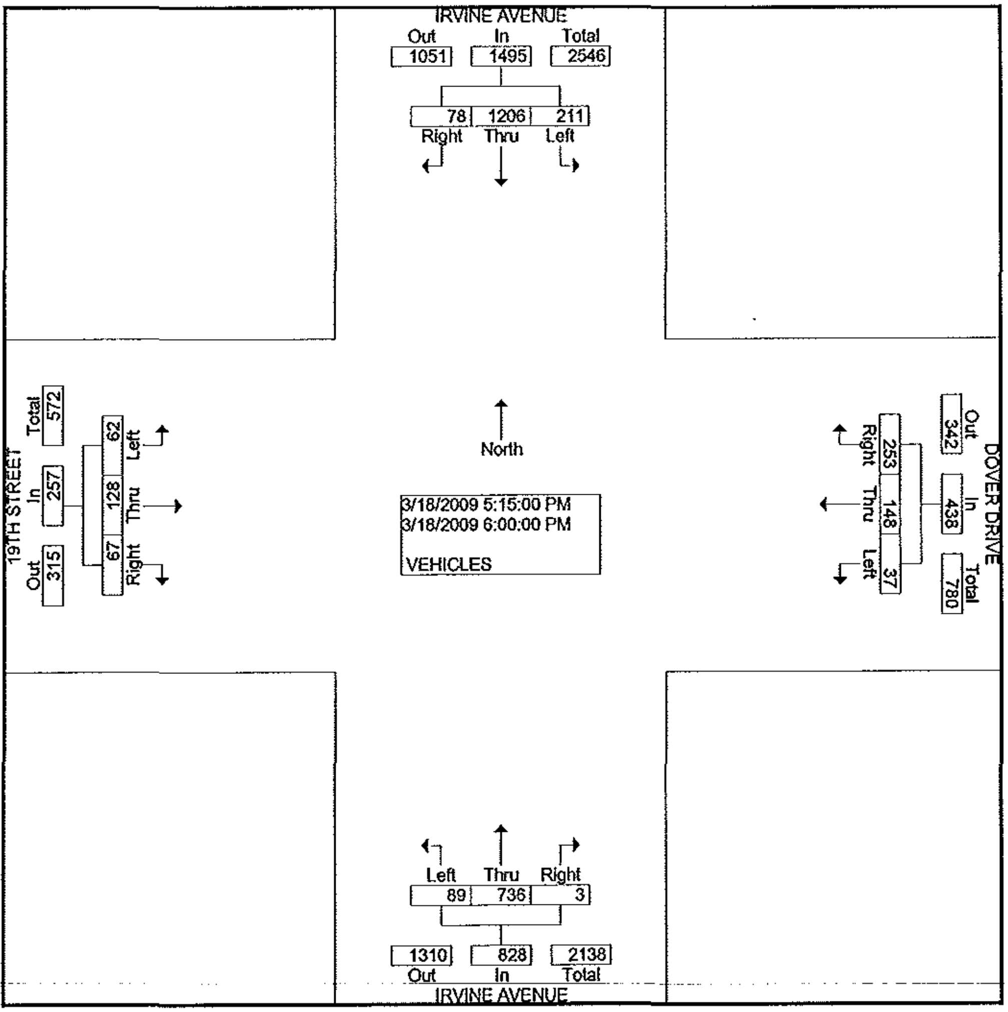
File Name : H0903069
Site Code : 00000000
Start Date : 3/18/2009
Page No : 2

	IRVINE AVENUE Southbound				DOVER DRIVE Westbound				IRVINE AVENUE Northbound				19TH STREET Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:45 AM																
Volume	32	631	188	851	253	105	19	377	17	716	73	806	57	134	52	243	2277
Percent	3.8	74.1	22.1		67.1	27.9	5.0		2.1	88.8	9.1		23.5	55.1	21.4		
08:30 Volume	10	145	51	206	60	28	7	95	3	208	26	237	19	46	13	78	616
Peak Factor																	0.924
High Int.	07:45 AM				07:45 AM				08:30 AM				08:30 AM				
Volume	10	189	40	239	79	26	7	112	3	208	26	237	19	46	13	78	
Peak Factor				0.890				0.842				0.850				0.779	



File Name : H0903069
Site Code : 00000000
Start Date : 3/18/2009
Page No : 3

	IRVINE AVENUE Southbound				DOVER DRIVE Westbound				IRVINE AVENUE Northbound				19TH STREET Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 04:30 PM to 06:15 PM - Peak 1 of 1																	
Intersection	05:15 PM																
Volume	78	1206	211	1495	253	148	37	438	3	736	89	828	67	128	62	257	3018
Percent	5.2	80.7	14.1		57.8	33.8	8.4		0.4	88.9	10.7		26.1	49.8	24.1		
05:30 Volume	21	318	51	390	66	45	6	117	1	200	23	224	13	34	18	65	796
Peak Factor																	0.948
High Int.	05:30 PM				05:15 PM				05:30 PM				06:00 PM				
Volume	21	318	51	390	66	44	12	122	1	200	23	224	17	43	10	70	
Peak Factor				0.958				0.898				0.924				0.918	



CH 3060

Transportation Studies, Inc.

2860 Walnut Avenue, Suite C
Tustin, CA. 92780

City: NEWPORT BEACH
N-S Direction: DOVER DR/BAY SHORE DR
E-W Direction: COAST HIGHWAY

File Name : H0903062
Site Code : 00000000
Start Date : 3/19/2009
Page No : 1

Groups Printed- VEHICLES

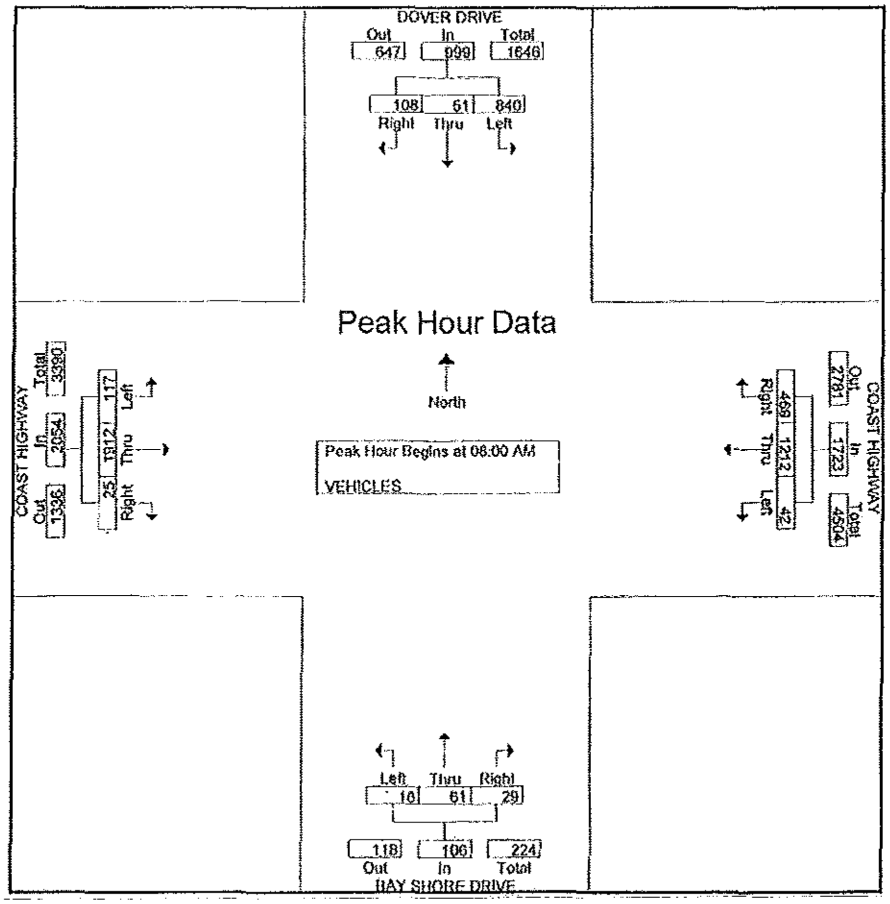
	DOVER DRIVE			COAST HIGHWAY			BAY SHORE DRIVE			COAST HIGHWAY			
	Southbound			Westbound			Northbound			Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	20	16	99	71	121	4	5	2	5	2	258	14	617
07:15 AM	27	7	147	97	200	3	8	11	3	1	361	15	880
07:30 AM	29	7	190	136	205	8	13	16	6	2	382	31	1025
07:45 AM	36	7	223	134	221	5	12	21	7	4	403	36	1109
Total	112	37	659	438	747	20	38	50	21	9	1404	96	3631
08:00 AM	28	13	196	125	305	19	11	15	2	5	477	28	1224
08:15 AM	27	14	214	114	310	8	8	17	4	4	475	26	1221
08:30 AM	32	13	234	122	283	10	6	10	1	8	499	30	1248
08:45 AM	21	11	196	108	314	5	4	19	9	8	461	33	1189
Total	108	51	840	469	1212	42	29	61	16	25	1912	117	4882
*** BREAK ***													
04:30 PM	34	11	226	230	457	17	2	9	10	5	320	31	1352
04:45 PM	23	17	219	286	430	13	12	12	5	3	289	36	1345
Total	57	28	445	516	887	30	14	21	15	8	609	67	2697
05:00 PM	36	16	215	263	543	8	7	13	11	3	344	34	1493
05:15 PM	25	21	193	271	528	16	14	7	6	8	282	38	1409
05:30 PM	30	12	267	217	546	12	6	10	7	6	333	36	1482
05:45 PM	28	12	243	270	536	14	14	12	11	8	311	37	1496
Total	119	61	918	1021	2153	50	41	42	35	25	1270	145	5880
06:00 PM	26	13	211	282	486	11	6	12	8	4	298	28	1385
06:15 PM	30	17	197	227	436	14	8	16	2	4	298	28	1277
Grand Total	452	207	3270	2953	5921	167	136	202	97	75	5791	481	19752
Apprch %	11.5	6.3	83.2	32.7	65.6	1.8	31.3	46.4	22.3	1.2	91.2	7.6	
Total %	2.3	1	16.6	15	30	0.8	0.7	1	0.5	0.4	29.3	2.4	

Transportation Studies, Inc.

2860 Walnut Avenue, Suite C
Tustin, CA. 92780

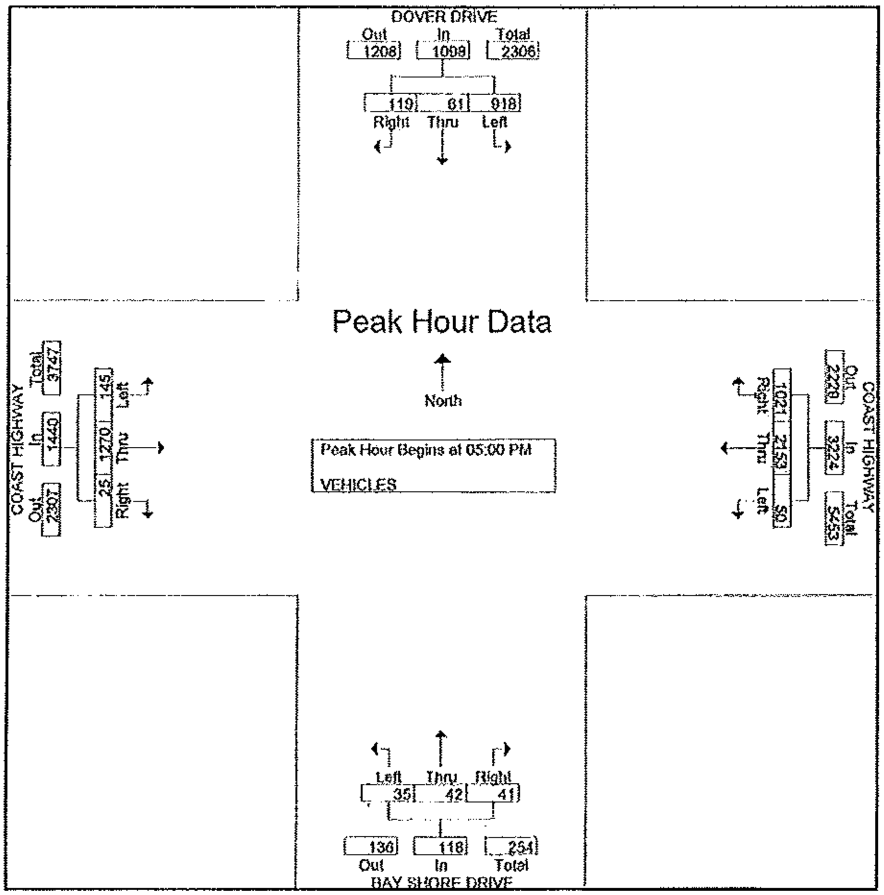
File Name : H0903062
Site Code : 00000000
Start Date : 3/19/2009
Page No : 2

	DOVER DRIVE Southbound				COAST HIGHWAY Westbound				BAY SHORE DRIVE Northbound				COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	28	13	196	237	125	305	19	449	11	15	2	28	5	477	28	510	1224
08:15 AM	27	14	214	255	114	310	8	432	8	17	4	29	4	475	26	505	1221
08:30 AM	32	13	234	279	122	283	10	415	6	10	1	17	8	499	30	537	1248
08:45 AM	21	11	196	228	108	314	5	427	4	19	9	32	8	461	33	502	1189
Total Volume	108	51	840	999	469	1212	42	1723	29	61	16	106	25	1912	117	2054	4882
% App. Total	10.8	5.1	84.1		27.2	70.3	2.4		27.4	57.5	15.1		1.2	93.1	5.7		
PHF	.844	.911	.897	.895	.938	.965	.553	.959	.659	.803	.444	.828	.781	.958	.886	.956	.978



File Name : H0903062
Site Code : 00000000
Start Date : 3/19/2009
Page No : 3

	DOVER DRIVE Southbound				COAST HIGHWAY Westbound				BAY SHORE DRIVE Northbound				COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	36	16	215	267	263	543	8	814	7	13	11	31	3	344	34	381	1493
05:15 PM	25	21	193	239	271	528	16	815	14	7	6	27	8	282	38	328	1409
05:30 PM	30	12	267	309	217	546	12	775	6	10	7	23	6	333	36	375	1482
05:45 PM	28	12	243	283	270	536	14	820	14	12	11	37	8	311	37	356	1496
Total Volume	119	61	918	1098	1021	2153	50	3224	41	42	35	118	25	1270	145	1440	5880
% App. Total	10.8	5.6	83.6		31.7	66.8	1.6		34.7	35.6	29.7		1.7	88.2	10.1		
PHF	.826	.726	.860	.888	.942	.986	.781	.983	.732	.808	.795	.797	.781	.923	.954	.945	.983



CH2620

Transportation Studies, Inc.

2860 Walnut Avenue, Suite C
Tustin, CA. 92780

City: NEWPORT BEACH
N-S Direction: NEWPORT BOULEVARD
E-W Direction: PACIFIC COAST HIGHWAY

File Name : H0902158
Site Code : 00000000
Start Date : 2/12/2009
Page No : 1

Groups Printed- VEHICLES

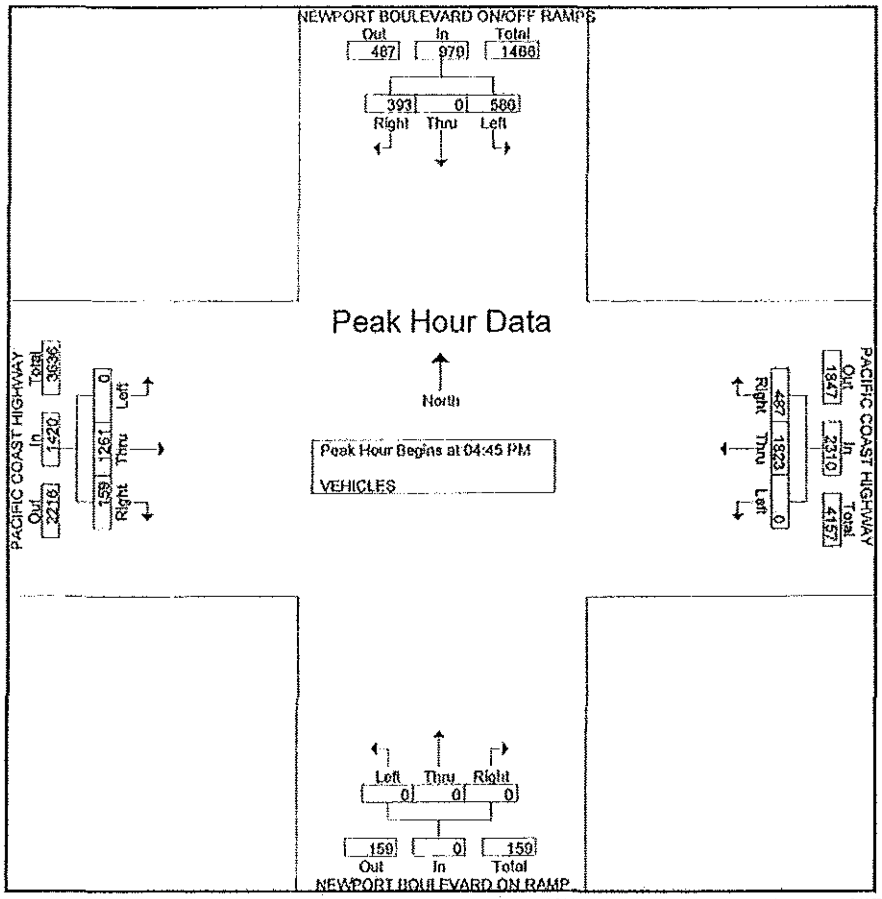
	NEWPORT BOULEVARD ON/OFF RAMPS Southbound			PACIFIC COAST HIGHWAY Westbound			NEWPORT BOULEVARD ON RAMP Northbound			PACIFIC COAST HIGHWAY Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	44	0	73	55	123	0	0	0	0	12	320	0	627
07:15 AM	41	0	77	55	144	0	0	0	0	24	373	0	714
07:30 AM	53	0	86	49	168	0	0	0	0	40	468	0	864
07:45 AM	64	0	99	75	210	0	0	0	0	46	547	0	1041
Total	202	0	335	234	645	0	0	0	0	122	1708	0	3246
08:00 AM	73	0	106	87	197	0	0	0	0	53	524	0	1040
08:15 AM	80	0	92	97	214	0	0	0	0	40	504	0	1027
08:30 AM	71	0	86	90	191	0	0	0	0	49	507	0	994
08:45 AM	63	0	87	79	199	0	0	0	0	46	487	0	961
Total	287	0	371	353	801	0	0	0	0	188	2022	0	4022
*** BREAK ***													
04:30 PM	87	0	140	122	413	0	0	0	0	33	287	0	1082
04:45 PM	104	0	138	113	444	0	0	0	0	37	328	0	1164
Total	191	0	278	235	857	0	0	0	0	70	615	0	2246
05:00 PM	122	0	153	127	456	0	0	0	0	31	322	0	1211
05:15 PM	110	0	139	108	472	0	0	0	0	44	310	0	1183
05:30 PM	57	0	156	139	451	0	0	0	0	47	301	0	1151
05:45 PM	119	0	140	120	428	0	0	0	0	44	307	0	1158
Total	408	0	588	494	1807	0	0	0	0	166	1240	0	4703
06:00 PM	104	0	137	119	437	0	0	0	0	37	310	0	1144
06:15 PM	93	0	127	101	420	0	0	0	0	39	314	0	1094
Grand Total	1285	0	1836	1536	4967	0	0	0	0	622	6209	0	16455
Apprch %	41.2	0	58.8	23.6	76.4	0	0	0	0	9.1	90.9	0	
Total %	7.8	0	11.2	9.3	30.2	0	0	0	0	3.8	37.7	0	

Transportation Studies, Inc.

2860 Walnut Avenue, Suite C
Tustin, CA. 92780

File Name : H0902158
Site Code : 00000000
Start Date : 2/12/2009
Page No : 3

	NEWPORT BOULEVARD ON/OFF RAMPS Southbound				PACIFIC COAST HIGHWAY Westbound				NEWPORT BOULEVARD ON RAMP Northbound				PACIFIC COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	104	0	138	242	113	444	0	557	0	0	0	0	37	328	0	365	1164
05:00 PM	122	0	153	275	127	456	0	583	0	0	0	0	31	322	0	353	1211
05:15 PM	110	0	139	249	108	472	0	580	0	0	0	0	44	310	0	354	1183
05:30 PM	57	0	156	213	139	451	0	590	0	0	0	0	47	301	0	348	1151
Total Volume	393	0	586	979	487	1823	0	2310	0	0	0	0	159	1261	0	1420	4709
% App. Total	40.1	0	59.9		21.1	78.9	0		0	0	0		11.2	88.8	0		
PHF	.805	.000	.939	.890	.876	.966	.000	.979	.000	.000	.000	.000	.846	.961	.000	.973	.972



IR-3275.

Transportation Studies, Inc.
2680 Walnut Avenue, Suite C
Tustin, CA. 92780

City: NEWPORT BEACH
N-S Direction: IRVINE AVENUE
E-W Direction: 17TH ST - WESTCLIFF DR

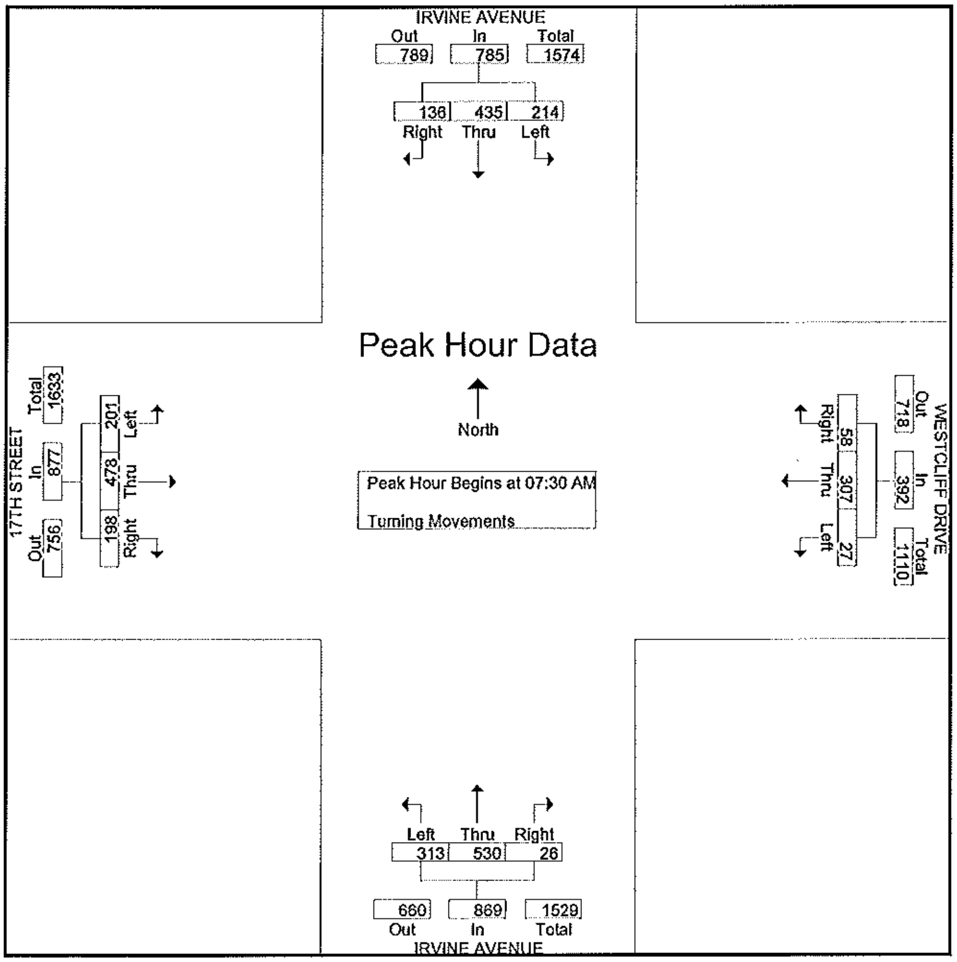
File Name : h1002052
Site Code : 00005062
Start Date : 4/1/2010
Page No : 1

Groups Printed- Turning Movements

	IRVINE AVENUE			WESTCLIFF DRIVE			IRVINE AVENUE			17TH STREET			
	Southbound			Westbound			Northbound			Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	18	48	47	3	37	3	4	63	45	29	95	20	412
07:15 AM	15	69	45	4	46	12	6	80	59	49	104	27	516
07:30 AM	19	100	60	11	57	8	2	119	82	67	113	30	668
07:45 AM	36	213	77	9	73	3	7	142	79	56	116	53	864
Total	88	430	229	27	213	26	19	404	265	201	428	130	2460
08:00 AM	42	63	44	23	82	9	10	164	95	41	121	71	765
08:15 AM	39	59	33	15	95	7	7	105	57	34	128	47	626
08:30 AM	35	74	48	13	109	11	6	104	71	21	119	36	647
08:45 AM	44	62	52	5	114	20	7	69	71	35	114	53	646
Total	160	258	177	56	400	47	30	442	294	131	482	207	2684
*** BREAK ***													
04:30 PM	77	92	32	10	158	32	18	91	57	71	174	63	875
04:45 PM	79	111	51	19	151	32	6	95	54	54	166	90	908
Total	156	203	83	29	309	64	24	186	111	125	340	153	1783
05:00 PM	66	116	39	13	196	20	16	93	86	52	163	72	932
05:15 PM	88	136	38	21	158	21	7	116	71	45	142	78	921
05:30 PM	86	113	36	12	154	22	9	105	76	75	144	77	909
05:45 PM	96	156	30	20	163	35	16	121	70	61	128	83	979
Total	336	521	143	66	671	98	48	435	303	233	577	310	3741
06:00 PM	79	107	37	8	157	24	9	94	73	69	136	76	869
06:15 PM	71	112	29	10	161	30	13	71	69	74	135	58	833
Grand Total	890	1631	698	196	1911	289	143	1632	1115	833	2098	934	12370
Apprch %	27.6	50.7	21.7	8.2	79.8	12.1	4.9	56.5	38.6	21.6	54.3	24.2	
Total %	7.2	13.2	5.6	1.6	15.4	2.3	1.2	13.2	9	6.7	17	7.6	

File Name : h1002052
Site Code : 00005062
Start Date : 4/1/2010

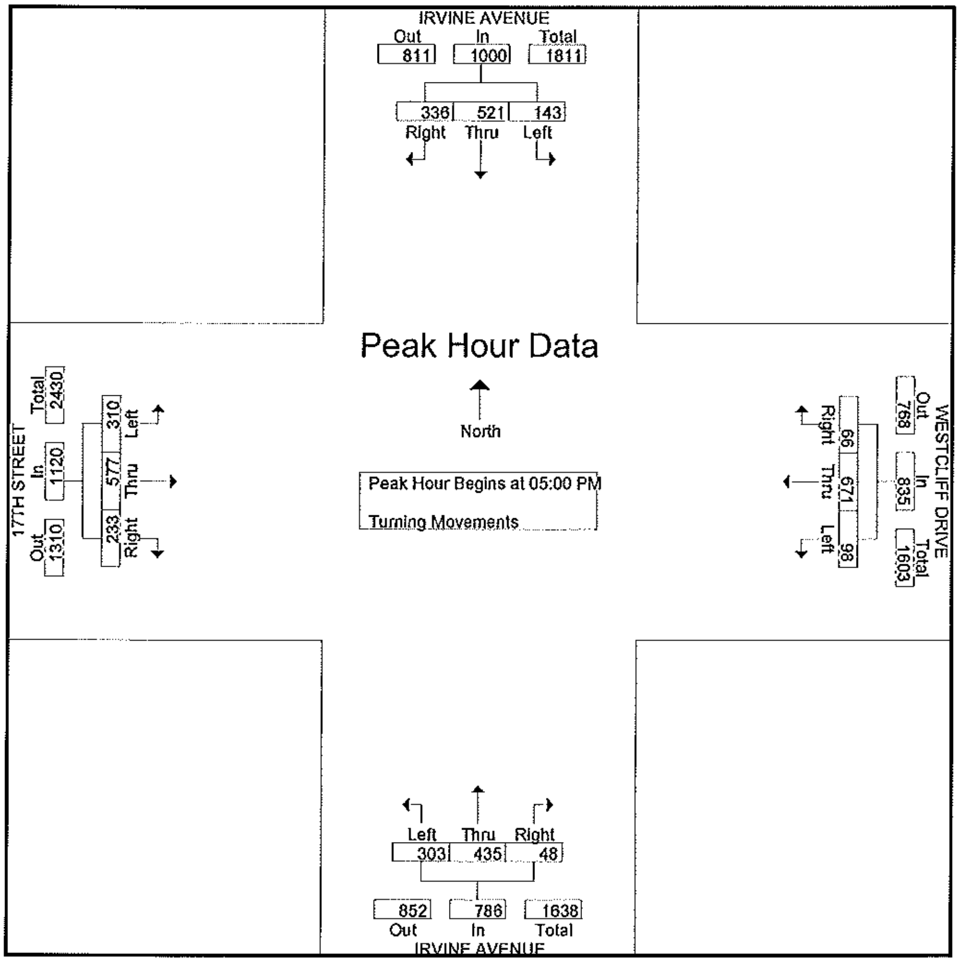
	IRVINE AVENUE Southbound				WESTCLIFF DRIVE Westbound				IRVINE AVENUE Northbound				17TH STREET Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	19	100	60	179	11	57	8	76	2	119	82	203	**67**	113	30	210	668
07:45 AM	36	**213**	**77**	**326**	9	73	3	85	7	142	79	228	56	116	53	225	**864**
08:00 AM	**42**	63	44	149	**23**	82	**9**	114	**10**	**164**	**95**	**269**	41	121	**71**	**233**	765
08:15 AM	39	59	33	131	15	**95**	7	**117**	7	105	57	169	34	**128**	47	209	626
Total Volume	136	435	214	785	58	307	27	392	26	530	313	869	198	478	201	877	2923
% App. Total	17.3	55.4	27.3		14.8	78.3	6.9		3	61	36		22.6	54.5	22.9		
PHF	.810	.511	.695	.602	.630	.808	.750	.838	.650	.808	.824	.808	.739	.934	.708	.941	.846



Transportation Studies, Inc.
2680 Walnut Avenue, Suite C
Tustin, CA. 92780

File Name : h1002052
Site Code : 00005062
Start Date : 4/1/2010
Page No : 3

	IRVINE AVENUE Southbound				WESTCLIFF DRIVE Westbound				IRVINE AVENUE Northbound				17TH STREET Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	66	116	**39**	221	13	**196**	20	**229**	**16**	93	**86**	195	52	**163**	72	287	932
05:15 PM	88	136	38	262	**21**	158	21	200	7	116	71	194	45	142	78	265	921
05:30 PM	86	113	36	235	12	154	22	188	9	105	76	190	**75**	144	77	**296**	909
05:45 PM	**96**	**156**	30	**282**	20	163	**35**	218	16	**121**	70	**207**	61	128	**83**	272	**979**
Total Volume	336	521	143	1000	66	671	98	835	48	435	303	786	233	577	310	1120	3741
% App. Total	33.6	52.1	14.3		7.9	80.4	11.7		6.1	55.3	38.5		20.8	51.5	27.7		
PHF	.875	.835	.917	.887	.786	.856	.700	.912	.750	.899	.881	.949	.777	.885	.934	.946	.955



Do 3290

Transportation Studies, Inc.
2680 Walnut Avenue
Suite C
Tustin, CA. 92780

City: NEWPORT BEACH
N-S Direction: DOVER DRIVE
E-W Direction: WESTCLIFF DRIVE

File Name : H0903068
Site Code : 00000000
Start Date : 3/17/2009
Page No : 1

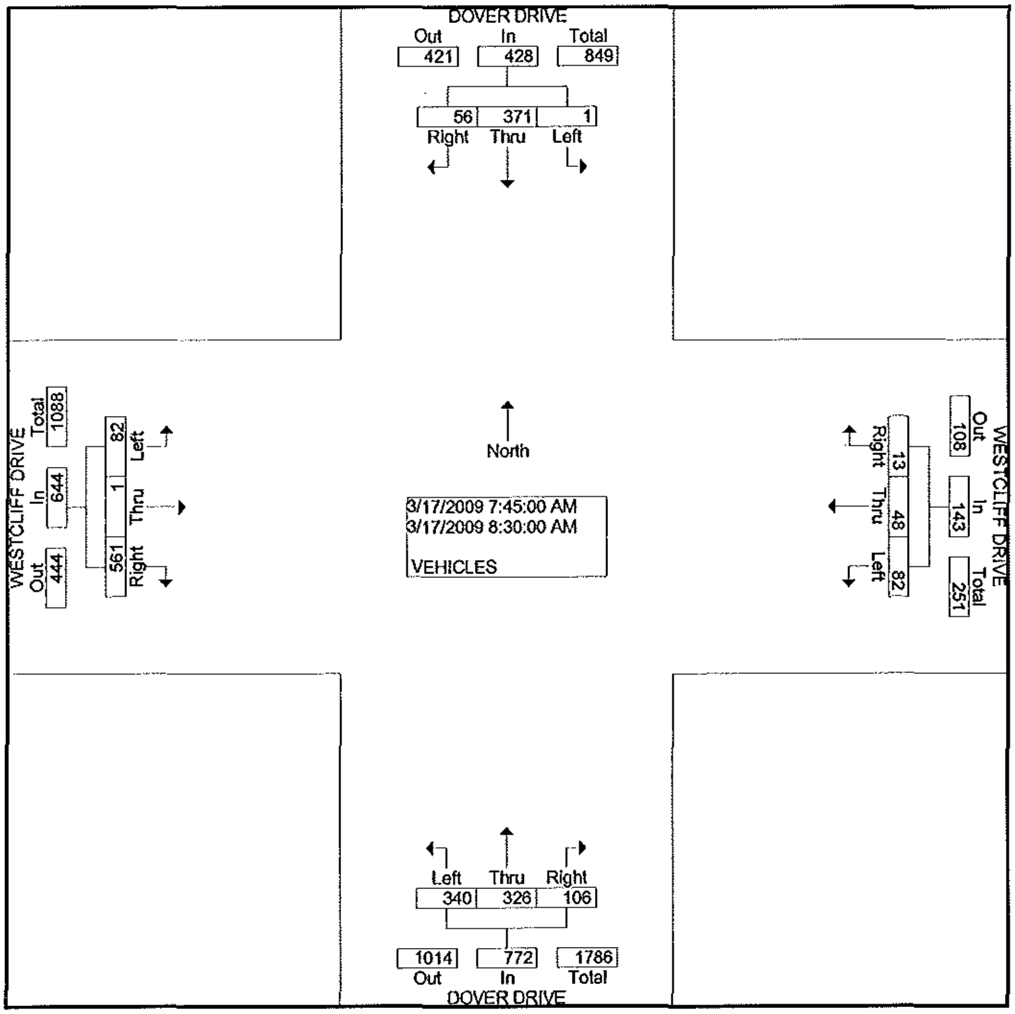
Groups Printed- VEHICLES

	DOVER DRIVE Southbound			WESTCLIFF DRIVE Westbound			DOVER DRIVE Northbound			WESTCLIFF DRIVE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	13	40	0	0	2	3	3	34	43	67	0	7	212
07:15 AM	15	62	0	1	14	21	9	38	41	82	2	5	290
07:30 AM	12	82	1	5	15	40	15	61	47	100	0	9	387
07:45 AM	12	148	0	2	13	18	30	110	83	206	0	16	638
Total	52	332	1	8	44	82	57	243	214	455	2	37	1527
08:00 AM	9	68	0	2	14	21	36	88	77	125	1	30	471
08:15 AM	13	89	0	8	13	26	20	63	97	115	0	12	456
08:30 AM	22	66	1	1	8	17	20	65	83	115	0	24	422
08:45 AM	19	62	0	1	15	30	19	64	89	136	1	14	450
Total	63	285	1	12	50	94	95	280	346	491	2	80	1799
*** BREAK ***													
04:30 PM	15	91	0	1	20	30	26	82	122	134	0	27	548
04:45 PM	18	73	0	0	10	14	40	78	159	144	0	27	563
Total	33	164	0	1	30	44	66	160	281	278	0	54	1111
05:00 PM	15	69	0	0	8	10	37	121	127	146	0	26	559
05:15 PM	13	83	0	2	13	21	38	117	125	123	0	36	571
05:30 PM	16	84	0	1	13	13	39	93	169	129	0	25	582
05:45 PM	21	83	0	1	13	16	52	86	97	142	0	23	534
Total	65	319	0	4	47	60	166	417	518	540	0	110	2246
06:00 PM	14	96	0	0	7	18	65	104	114	96	1	39	554
06:15 PM	10	93	0	3	7	25	45	81	90	117	0	25	496
Grand Total	237	1289	2	28	185	323	494	1285	1563	1977	5	345	7733
Apprch %	15.5	84.4	0.1	5.2	34.5	60.3	14.8	38.5	46.8	85.0	0.2	14.8	
Total %	3.1	16.7	0.0	0.4	2.4	4.2	6.4	16.6	20.2	25.6	0.1	4.5	

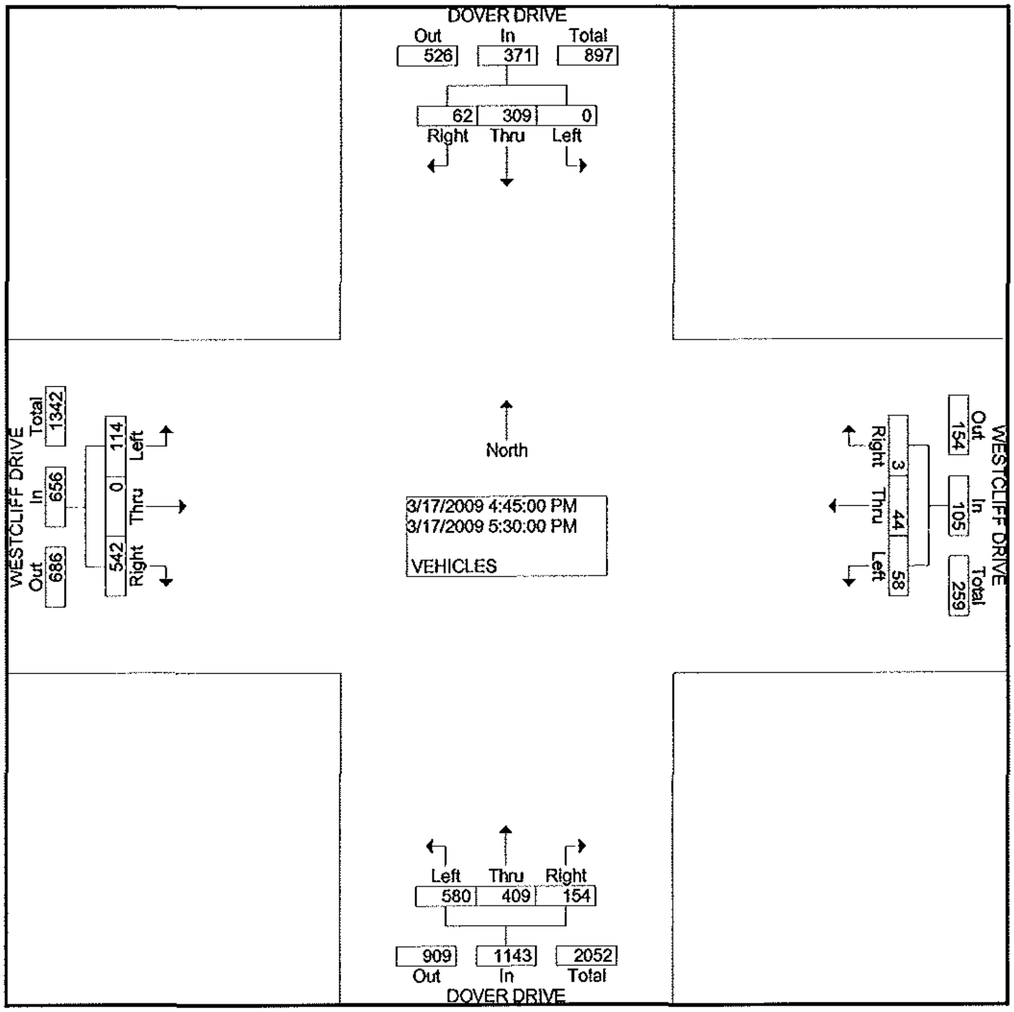
Transportation Studies, Inc.
2680 Walnut Avenue
Suite C
Tustin, CA. 92780

File Name : H0903068
Site Code : 00000000
Start Date : 3/17/2009
Page No : 2

	DOVER DRIVE Southbound				WESTCLIFF DRIVE Westbound				DOVER DRIVE Northbound				WESTCLIFF DRIVE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:45 AM																
Volume	56	371	1	428	13	48	82	143	106	326	340	772	561	1	82	644	1987
Percent	13.1	86.7	0.2		9.1	33.6	57.3		13.7	42.2	44.0		87.1	0.2	12.7		
07:45 Volume	12	148	0	160	2	13	18	33	30	110	83	223	206	0	16	222	638
Peak Factor																	0.779
High Int.	07:45 AM				08:15 AM				07:45 AM				07:45 AM				
Volume	12	148	0	160	8	13	26	47	30	110	83	223	206	0	16	222	
Peak Factor				0.669				0.761				0.865				0.725	



	DOVER DRIVE Southbound				WESTCLIFF DRIVE Westbound				DOVER DRIVE Northbound				WESTCLIFF DRIVE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 04:30 PM to 06:15 PM - Peak 1 of 1																	
Intersection	04:45 PM																
Volume	62	309	0	371	3	44	58	105	154	409	580	1143	542	0	114	656	2275
Percent	16.7	83.3	0.0		2.9	41.9	55.2		13.5	35.8	50.7		82.6	0.0	17.4		
05:30 Volume	16	84	0	100	1	13	13	27	39	93	169	301	129	0	25	154	582
Peak Factor																	0.977
High Int.	05:30 PM				05:15 PM				05:30 PM				05:00 PM				
Volume	16	84	0	100	2	13	21	36	39	93	169	301	146	0	26	172	
Peak Factor				0.928				0.729				0.949				0.953	



DO 3260

Transportation Studies, Inc.
2680 Walnut Avenue
Suite C
Tustin, CA. 92780

City: NEWPORT BEACH
N-S Direction: DOVER DRIVE
E-W Direction: 16TH STREET

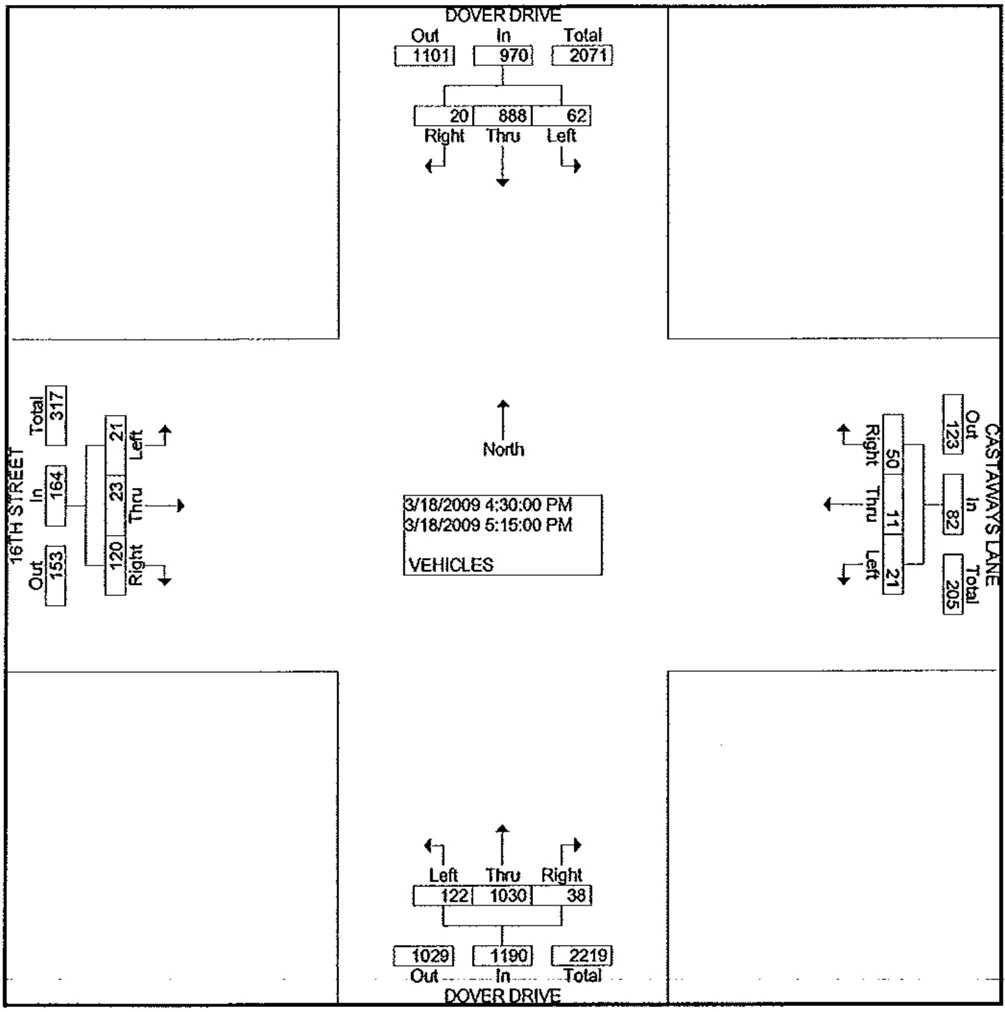
File Name : H0903067
Site Code : 00000000
Start Date : 3/18/2009
Page No : 1

Groups Printed- VEHICLES

	DOVER DRIVE Southbound			CASTAWAYS LANE Westbound			DOVER DRIVE Northbound			16TH STREET Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	5	95	4	7	3	5	4	57	16	30	4	2	232
07:15 AM	9	124	9	15	3	11	7	82	16	32	2	3	313
07:30 AM	13	232	10	11	4	16	5	108	27	46	1	6	479
07:45 AM	33	329	6	10	7	20	10	201	48	63	7	28	762
Total	60	780	29	43	17	52	26	448	107	171	14	39	1786
08:00 AM	4	213	8	9	1	18	12	176	22	26	6	6	501
08:15 AM	5	216	14	22	1	7	2	165	20	34	5	3	494
08:30 AM	3	202	14	8	0	8	8	136	26	33	2	3	443
08:45 AM	2	203	9	8	3	10	6	164	26	38	2	3	474
Total	14	834	45	47	5	43	28	641	94	131	15	15	1912
*** BREAK ***													
04:30 PM	6	219	11	7	2	2	11	252	34	21	2	5	572
04:45 PM	3	237	14	14	3	8	9	240	21	22	7	4	582
Total	9	456	25	21	5	10	20	492	55	43	9	9	1154
05:00 PM	5	235	19	17	3	5	12	289	29	38	7	5	664
05:15 PM	6	197	18	12	3	6	6	249	38	39	7	7	588
05:30 PM	4	168	20	11	4	8	8	266	20	34	11	5	559
05:45 PM	8	200	13	9	4	13	11	217	42	22	2	6	547
Total	23	800	70	49	14	32	37	1021	129	133	27	23	2358
06:00 PM	6	199	16	11	4	4	4	198	29	28	7	5	511
06:15 PM	4	158	19	11	3	6	8	206	30	29	2	9	485
Grand Total	116	3227	204	182	48	147	123	3006	444	535	74	100	8206
Apprch %	3.3	91.0	5.8	48.3	12.7	39.0	3.4	84.1	12.4	75.5	10.4	14.1	
Total %	1.4	39.3	2.5	2.2	0.6	1.8	1.5	36.6	5.4	6.5	0.9	1.2	

File Name : H0903067
Site Code : 00000000
Start Date : 3/18/2009

	DOVER DRIVE Southbound				CASTAWAYS LANE Westbound				DOVER DRIVE Northbound				16TH STREET Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 04:30 PM to 06:15 PM - Peak 1 of 1																	
Intersection	04:30 PM																
Volume	20	888	62	970	50	11	21	82	38	1030	122	1190	120	23	21	164	2406
Percent	2.1	91.5	6.4		61.0	13.4	25.6		3.2	86.6	10.3		73.2	14.0	12.8		
05:00 Volume	5	235	19	259	17	3	5	25	12	289	29	330	38	7	5	50	664
Peak Factor																	0.906
High Int.	05:00 PM				04:45 PM				05:00 PM				05:15 PM				
Volume	5	235	19	259	14	3	8	25	12	289	29	330	39	7	7	53	
Peak Factor				0.936				0.820				0.902				0.774	



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:	LOCATION:	NEWPORT	PROJECT #:	CA10-1203-04
12/1/10	NORTH & SOUTH:	DOVER	LOCATION #:	1
WEDNESDAY	EAST & WEST:	CLIFF	CONTROL:	SIGNAL

NOTES:

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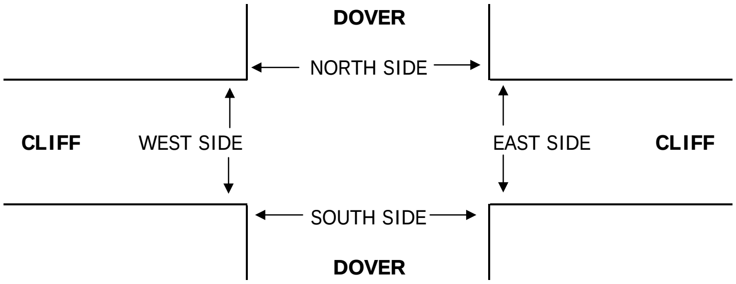
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
		DOVER			DOVER			CLIFF			CLIFF								
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL
	LANES:	1	2	X	X	2	0	1	X	1	X	X	X		X	X	X	X	
AM	7:00 AM	18	80			141	13	6		18				276					0
	7:15 AM	15	86			168	13	5		16				303					0
	7:30 AM	19	126			213	38	25		36				457					0
	7:45 AM	31	147			196	107	74		44				599					0
	8:00 AM	20	152			228	24	32		34				490					0
	8:15 AM	21	166			236	24	8		32				487					0
	8:30 AM	41	188			223	129	28		36				645					0
	8:45 AM	34	187			276	65	41		52				655					0
	VOLUMES	199	1,132	0	0	1,681	413	219	0	268	0	0	0	3,912	0	0	0	0	0
	APPROACH %	15%	85%	0%	0%	80%	20%	45%	0%	55%	0%	0%	0%						
	APP/DEPART	1,331	/	1,351	2,094	/	1,949	487	/	0	0	/	612	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	116	693	0	0	963	242	109	0	154	0	0	0	2,277					
	APPROACH %	14%	86%	0%	0%	80%	20%	41%	0%	59%	0%	0%	0%						
	PEAK HR FACTOR		0.883			0.856			0.707			0.000		0.869					
	APP/DEPART	809	/	802	1,205	/	1,117	263	/	0	0	/	358	0					
PM	4:00 PM	34	278			242	18	17		34				623					0
	4:15 PM	25	298			223	12	10		32				600					0
	4:30 PM	34	297			246	15	9		25				626					0
	4:45 PM	27	286			247	18	12		37				627					0
	5:00 PM	35	310			255	15	16		40				671					0
	5:15 PM	28	311			285	13	12		14				663					0
	5:30 PM	35	265			244	9	7		32				592					0
	5:45 PM	25	256			218	12	7		20				538					0
	VOLUMES	243	2,301	0	0	1,960	112	90	0	234	0	0	0	4,940	0	0	0	0	0
	APPROACH %	10%	90%	0%	0%	95%	5%	28%	0%	72%	0%	0%	0%						
	APP/DEPART	2,544	/	2,391	2,072	/	2,194	324	/	0	0	/	355	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	124	1,204	0	0	1,033	61	49	0	116	0	0	0	2,587					
	APPROACH %	9%	91%	0%	0%	94%	6%	30%	0%	70%	0%	0%	0%						
	PEAK HR FACTOR		0.962			0.918			0.737			0.000		0.964					
	APP/DEPART	1,328	/	1,253	1,094	/	1,149	165	/	0	0	/	185	0					



		PEDESTRIAN CROSSINGS					PEDESTRIAN ACTIVATIONS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM					0					0					0
	7:15 AM					0					0					0
	7:30 AM					0					0					0
	7:45 AM					0					0					0
	8:00 AM					0					0					0
	8:15 AM					0					0					0
	8:30 AM					0					0					0
	8:45 AM					0					0					0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM					0					0					0
	4:15 PM					0					0					0
	4:30 PM					0					0					0
	4:45 PM					0					0					0
	5:00 PM					0					0					0
	5:15 PM					0					0					0
	5:30 PM					0					0					0
	5:45 PM					0					0					0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE:
5/5/10
WEDNESDAY

LOCATION: NEWPORT
NORTH & SOUTH: BALBOA BAY DWY
EAST & WEST: COAST HWY

PROJECT #: CA10-0504-2
LOCATION #: 1
CONTROL: SIGNAL

NOTES:

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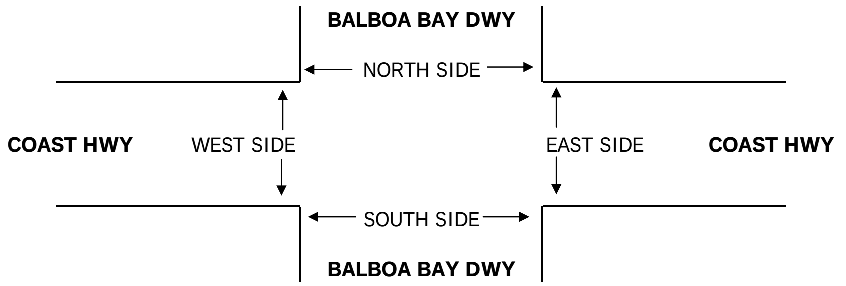
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
		BALBOA BAY DWY			BALBOA BAY DWY			COAST HWY			COAST HWY								
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL
	LANES:	0	1	0	0	1	0	1	2	1	1	2	0		X	X	X	X	
AM	7:00 AM	4	0	4	0	0	0	2	236	3	12	150	1	412			1		1
	7:15 AM	3	0	4	0	0	1	0	309	9	5	217	1	549					0
	7:30 AM	6	0	4	1	0	0	2	396	9	12	237	3	670			1		1
	7:45 AM	6	0	9	0	0	0	5	516	12	14	356	1	919			2		2
	8:00 AM	4	0	1	0	0	1	1	430	8	8	350	3	806					0
	8:15 AM	7	0	9	1	0	0	2	478	9	18	339	4	867			1	1	2
	8:30 AM	9	0	7	0	3	0	0	458	10	20	360	3	870					0
	8:45 AM	9	0	7	1	1	0	0	464	10	6	335	1	834			1		1
	VOLUMES	48	0	45	3	4	2	12	3,287	70	95	2,344	17	5,927	0	0	6	1	7
	APPROACH %	52%	0%	48%	33%	44%	22%	0%	98%	2%	4%	95%	1%						
	APP/DEPART	93	/	29	9	/	169	3,369	/	3,335	2,456	/	2,394	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	26	0	26	1	3	1	8	1,882	39	60	1,405	11	3,462					
	APPROACH %	50%	0%	50%	20%	60%	20%	0%	98%	2%	4%	95%	1%						
	PEAK HR FACTOR		0.813			0.417			0.905			0.963		0.942					
	APP/DEPART	52	/	19	5	/	102	1,929	/	1,909	1,476	/	1,432	0					
PM	4:00 PM	10	0	4	6	0	2	3	391	10	9	465	5	905			2		2
	4:15 PM	6	0	11	1	0	2	0	384	8	9	427	5	853			1	2	3
	4:30 PM	4	0	10	2	0	1	4	441	6	8	503	8	987			2	1	3
	4:45 PM	12	0	9	2	0	9	4	400	13	7	506	1	963			2		2
	5:00 PM	10	0	7	2	0	1	2	413	8	17	496	3	959				2	2
	5:15 PM	6	0	10	3	0	1	3	477	6	11	541	1	1,059			5	1	6
	5:30 PM	6	0	10	2	0	0	0	382	21	15	435	1	872			1	4	5
	5:45 PM	8	0	9	1	1	2	3	441	18	11	497	1	992			3		3
	VOLUMES	62	0	70	19	1	18	19	3,329	90	87	3,870	25	7,590	0	0	16	10	26
	APPROACH %	47%	0%	53%	50%	3%	47%	1%	97%	3%	2%	97%	1%						
	APP/DEPART	132	/	44	38	/	178	3,438	/	3,418	3,982	/	3,950	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	32	0	36	9	0	12	13	1,731	33	43	2,046	13	3,968					
	APPROACH %	47%	0%	53%	43%	0%	57%	1%	97%	2%	2%	97%	1%						
	PEAK HR FACTOR		0.810			0.477			0.914			0.950		0.937					
	APP/DEPART	68	/	26	21	/	76	1,777	/	1,776	2,102	/	2,090	0					



		PEDESTRIAN CROSSINGS					PEDESTRIAN ACTIVATIONS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM					0					0					0
	7:15 AM					0					0					0
	7:30 AM					0					0					0
	7:45 AM					0					0					0
	8:00 AM					0					0					0
	8:15 AM					0					0					0
	8:30 AM					0					0					0
	8:45 AM					0					0					0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM					0					0					0
	4:15 PM					0					0					0
	4:30 PM					0					0					0
	4:45 PM					0					0					0
	5:00 PM					0					0					0
	5:15 PM					0					0					0
	5:30 PM					0					0					0
	5:45 PM					0					0					0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

APPENDIX B
LOS Analysis Sheets

Existing Conditions

```
--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
                             EXISTING CONDITIONS
                                AM PEAK HOUR
--------------------------------------------------------------------------------
                           Turning Movement Report
                                    NONE

Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume

#101 IRVINE AVE/DOVER DR
Base     74  723    17   190  637    32    53  135    58    19  106   256   2300
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    74  723    17   190  637    32    53  135    58    19  106   256   2300

#102 IRVINE AVE/17TH ST
Base    313  530    26   214  435   136   201  478   198    27  307    58   2923
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   313  530    26   214  435   136   201  478   198    27  307    58   2923

#103 DOVER DR/WESTCLIFF DR
Base    343  436     0     0  376    57    83    0   568     0    0     0   1863
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   343  436     0     0  376    57    83    0   568     0    0     0   1863

#104 DOVER DR/16TH ST
Base    118  657    29    38 1000    56    43   19   171    62   13    53   2259
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   118  657    29    38 1000    56    43   19   171    62   13    53   2259

#105 DOVER DR/CLIFF DR
Base    116  693     0     0  963   242   109    0   154     0    0     0   2277
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   116  693     0     0  963   242   109    0   154     0    0     0   2277

#106 NEWPORT BLVD/COAST HWY
Base      0    0     0   387    0   291     0 2103   190     0  820   352   4143
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total     0    0     0   387    0   291     0 2103   190     0  820   352   4143

#107 RIVERSIDE AVE/COAST HWY
Base      0    0     1    78    4   307   315 1912     4    17 1135    68   3841
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total     0    0     1    78    4   307   315 1912     4    17 1135    68   3841

#108 TUSTIN AVE/COAST HWY
Base      0    0     0    33    1    14    42 2012     1     1 1232    35   3371
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total     0    0     0    33    1    14    42 2012     1     1 1232    35   3371

#109 BALBOA BAY DRIVEWAY/COAST HWY
Base     26    0    26     1    3     1     5 1882    39    60 1405    11   3459
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    26    0    26     1    3     1     5 1882    39    60 1405    11   3459
```

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--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
                             EXISTING CONDITIONS
                                AM PEAK HOUR
--------------------------------------------------------------------------------
Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume


#110 DOVER DR - BAY SHORE DR/COAST HWY
Base     16   62    29   848   52   109   118 1931    25    42 1224   474   4930
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    16   62    29   848   52   109   118 1931    25    42 1224   474   4930

#111 BAYSIDE DR/COAST HWY
Base    316    7    37    17    8    36    47 2223   350    56 1493    16   4606
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   316    7    37    17    8    36    47 2223   350    56 1493    16   4606

#112 JAMBOREE RD/COAST HWY
Base     25  354   101   144  229   617   859 1560    20   100  953    77   5039
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    25  354   101   144  229   617   859 1560    20   100  953    77   5039
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                              EXISTING CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
        ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #101 IRVINE AVE/DOVER DR
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.543
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        41                Level Of Service:                  A
********************************************************************************
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  1  1  0    1  0  1  1  0    1  0  0  1  0    1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      74  723    17   190  637    32    53  135    58    19  106   256
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:   74  723    17   190  637    32    53  135    58    19  106   256
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:    74  723    17   190  637    32    53  135    58    19  106   256
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   74  723    17   190  637    32    53  135    58    19  106   256
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  723    17   190  637    32    53  135    58    19  106   256
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.95  0.05  1.00 1.90  0.10  1.00 0.70  0.30  1.00 1.00  1.00
Final Sat.:  1600 3126    74  1600 3047   153  1600 1119   481  1600 1600  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.05 0.23  0.23  0.12 0.21  0.21  0.03 0.12  0.12  0.01 0.07  0.16
Crit Moves:       ****        ****             ****                        ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                              EXISTING CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
        ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #102 IRVINE AVE/17TH ST
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.496
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        45                Level Of Service:                  A
********************************************************************************
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:        2  0  1  1  0    2  0  1  1  0    2  0  1  1  0    2  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     313  530    26   214  435   136   201  478   198    27  307    58
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:  313  530    26   214  435   136   201  478   198    27  307    58
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:   313  530    26   214  435   136   201  478   198    27  307    58
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  313  530    26   214  435   136   201  478   198    27  307    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:  313  530    26   214  435   136   201  478   198    27  307    58
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       2.00 1.91  0.09  2.00 1.52  0.48  2.00 1.41  0.59  2.00 1.68  0.32
Final Sat.:  3200 3050   150  3200 2438   762  3200 2263   937  3200 2692   508
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.10 0.17  0.17  0.07 0.18  0.18  0.06 0.21  0.21  0.01 0.11  0.11
Crit Moves:  ****                  ****             ****        ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                              EXISTING CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
        ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #103 DOVER DR/WESTCLIFF DR
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.368
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        36                Level Of Service:                  A
********************************************************************************
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          Ignore           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:        2  0  2  0  0    0  0  1  0  1    2  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     343  436     0     0  376    57    83    0   568     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:  343  436     0     0  376    57    83    0   568     0    0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Volume:   343  436     0     0  376    57    83    0     0     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  343  436     0     0  376    57    83    0     0     0    0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
FinalVolume:  343  436     0     0  376    57    83    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       2.00 2.00  0.00  0.00 1.00  1.00  2.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:  3200 3200     0     0 1600  1600  3200    0  1600     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.11 0.14  0.00  0.00 0.24  0.04  0.03 0.00  0.00  0.00 0.00  0.00
Crit Moves:  ****                  ****        ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                              EXISTING CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
        ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #104 DOVER DR/16TH ST
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.588
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        45                Level Of Service:                  A
********************************************************************************
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  1  1  0    1  0  1  1  0    0  0  1! 0  0    1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     118  657    29    38 1000    56    43   19   171    62   13    53
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:  118  657    29    38 1000    56    43   19   171    62   13    53
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:   118  657    29    38 1000    56    43   19   171    62   13    53
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  118  657    29    38 1000    56    43   19   171    62   13    53
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:  118  657    29    38 1000    56    43   19   171    62   13    53
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.92  0.08  1.00 1.89  0.11  0.18 0.08  0.74  1.00 1.00  1.00
Final Sat.:  1600 3065   135  1600 3030   170   295  130  1174  1600 1600  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.07 0.21  0.21  0.02 0.33  0.33  0.03 0.15  0.15  0.04 0.01  0.03
Crit Moves:  ****                  ****             ****        ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                       MARINERS POINTE - 10-107807
                          EXISTING CONDITIONS
                             AM PEAK HOUR
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
        ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #105 DOVER DR/CLIFF DR
********************************************************************************
Cycle (sec):        100              Critical Vol./Cap.(X):        0.545
Loss Time (sec):      0              Average Delay (sec/veh):     xxxxxx
Optimal Cycle:       50              Level Of Service:                 A
********************************************************************************
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  0    0  0  1  1  0    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:    116  693     0    0  963   242  109    0   154    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: 116  693     0    0  963   242  109    0   154    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:  116  693     0    0  963   242  109    0   154    0    0     0
Reduct Vol:    0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol: 116  693     0    0  963   242  109    0   154    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: 116  693     0    0  963   242  109    0   154    0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600  1600
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 2.00  0.00 0.00 1.60  0.40 1.00 0.00  1.00 0.00 0.00  0.00
Final Sat.: 1600 3200     0    0 2557   643 1600    0  1600    0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.07 0.22  0.00 0.00 0.38  0.38 0.07 0.00  0.10 0.00 0.00  0.00
Crit Moves: ****                ****                   ****
********************************************************************************
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--------------------------------------------------------------------------------
                       MARINERS POINTE - 10-107807
                          EXISTING CONDITIONS
                             AM PEAK HOUR
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
        ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #106 NEWPORT BLVD/COAST HWY
********************************************************************************
Cycle (sec):        100              Critical Vol./Cap.(X):        0.839
Loss Time (sec):      0              Average Delay (sec/veh):     xxxxxx
Optimal Cycle:      142              Level Of Service:                 D
********************************************************************************
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       Protected        Protected
Rights:          Include          Include           Ignore           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  0  0  0    2  0  0  0  1    0  0  2  0  1    0  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      0    0     0  387    0   291    0 2103   190    0  820   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:   0    0     0  387    0   291    0 2103   190    0  820   352
User 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
PHF 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
PHF Volume:    0    0     0  387    0   291    0 2103     0    0  820     0
Reduct Vol:    0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:   0    0     0  387    0   291    0 2103     0    0  820     0
PCE 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
MLF 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
FinalVolume:   0    0     0  387    0   291    0 2103     0    0  820     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600  1600
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:      0.00 0.00  0.00 2.00 0.00  1.00 0.00 2.00  1.00 0.00 3.00  1.00
Final Sat.:    0    0     0 3200    0  1600    0 3200  1600    0 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00  0.00 0.12 0.00  0.18 0.00 0.66  0.00 0.00 0.17  0.00
Crit Moves:                            ****      ****            ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                              EXISTING CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
        ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #107 RIVERSIDE AVE/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.658
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        54                Level Of Service:                  B
********************************************************************************
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       Protected        Protected
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:        0  0  0  0  1    0  1  0  0  1    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     1    78    4   307   315 1912     4    17 1135    68
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     1    78    4   307   315 1912     4    17 1135    68
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:     0    0     1    78    4   307   315 1912     4    17 1135    68
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     1    78    4   307   315 1912     4    17 1135    68
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     1    78    4   307   315 1912     4    17 1135    68
OvlAdjVol:                                  0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.00 0.00  1.00  0.95 0.05  1.00  1.00 1.99  0.01  1.00 3.00  1.00
Final Sat.:     0    0  1600  1522   78  1600  1600 3193     7  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.05 0.05  0.19  0.20 0.60  0.60  0.01 0.24  0.04
OvlAdjV/S:                               0.00
Crit Moves:       ****        ****                  ****        ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                              EXISTING CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
        ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #108 TUSTIN AVE/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.660
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        55                Level Of Service:                  B
********************************************************************************
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       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  1! 0  0    0  0  1! 0  0    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0    33    1    14    42 2012     1     1 1232    35
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    33    1    14    42 2012     1     1 1232    35
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:     0    0     0    33    1    14    42 2012     1     1 1232    35
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0    33    1    14    42 2012     1     1 1232    35
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    33    1    14    42 2012     1     1 1232    35
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.00 1.00  0.00  0.69 0.02  0.29  1.00 1.99  0.01  1.00 3.00  1.00
Final Sat.:     0 1600     0  1100   33   467  1600 3198     2  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.02 0.03  0.03  0.03 0.63  0.63  0.00 0.26  0.02
Crit Moves:                        ****             ****        ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                              EXISTING CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
        ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #109 BALBOA BAY DRIVEWAY/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.659
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        55                Level Of Service:                  B
********************************************************************************
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       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  1! 0  0    0  0  1! 0  0    1  0  2  0  1    1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      26    0    26     1    3     1     5 1882    39    60 1405    11
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:   26    0    26     1    3     1     5 1882    39    60 1405    11
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:    26    0    26     1    3     1     5 1882    39    60 1405    11
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   26    0    26     1    3     1     5 1882    39    60 1405    11
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:   26    0    26     1    3     1     5 1882    39    60 1405    11
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.50 0.00  0.50  0.20 0.60  0.20  1.00 2.00  1.00  1.00 1.98  0.02
Final Sat.:   800    0   800   320  960   320  1600 3200  1600  1600 3175    25
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.00  0.03  0.00 0.00  0.00  0.00 0.59  0.02  0.04 0.44  0.44
Crit Moves:             ****  ****                  ****        ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                              EXISTING CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
        ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #110 DOVER DR - BAY SHORE DR/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.639
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        63                Level Of Service:                  B
********************************************************************************
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       Protected        Protected
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:         1  0  1  1  0    3  0  1  0  1    2  0  2  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      16   62    29   848   52   109   118 1931    25    42 1224   474
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:   16   62    29   848   52   109   118 1931    25    42 1224   474
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:    16   62    29   848   52   109   118 1931    25    42 1224     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   16   62    29   848   52   109   118 1931    25    42 1224     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:   16   62    29   848   52   109   118 1931    25    42 1224     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.36  0.64  3.00 1.00  1.00  2.00 2.96  0.04  1.00 3.00  1.00
Final Sat.:  1600 2180  1020  4800 1600  1600  3200 4739    61  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.03  0.03  0.18 0.03  0.07  0.04 0.41  0.41  0.03 0.26  0.00
Crit Moves:       ****        ****                  ****        ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                              EXISTING CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
        ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #111 BAYSIDE DR/COAST HWY
********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):         0.601
Loss Time (sec):       0              Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        57              Level Of Service:                  B
********************************************************************************
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       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:        2  0  1! 0  0   1  0  0  1  0   1  0  3  0  1   1  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     316    7   37    17    8   36    47 2223  350    56 1493   16
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:  316    7   37    17    8   36    47 2223  350    56 1493   16
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:   316    7   37    17    8   36    47 2223  350    56 1493   16
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  316    7   37    17    8   36    47 2223  350    56 1493   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:  316    7   37    17    8   36    47 2223  350    56 1493   16
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600
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:       2.63 0.06 0.31  1.00 0.18 0.82  1.00 3.00 1.00  1.00 4.00 1.00
Final Sat.:  4213   93  493  1600  291 1309  1600 4800 1600  1600 6400 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.08 0.08  0.01 0.03 0.03  0.03 0.46 0.22  0.04 0.23 0.01
Crit Moves:       ****            ****            ****       ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                              EXISTING CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
        ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #112 JAMBOREE RD/COAST HWY
********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):         0.560
Loss Time (sec):       0              Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        52              Level Of Service:                  A
********************************************************************************
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          Ignore           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:        1  0  1  1  0   1  0  2  0  1   3  0  3  1  0   2  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      25  354  101   144  229  617   859 1560   20   100  953   77
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:   25  354  101   144  229  617   859 1560   20   100  953   77
User Adj:    1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00  1.00 1.00 0.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00  1.00 1.00 0.00
PHF Volume:    25  354  101   144  229    0   859 1560   20   100  953    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   25  354  101   144  229    0   859 1560   20   100  953    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 0.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00  1.00 1.00 0.00
FinalVolume:   25  354  101   144  229    0   859 1560   20   100  953    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600
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 1.56 0.44  1.00 2.00 1.00  3.00 3.95 0.05  2.00 4.00 1.00
Final Sat.:  1600 2490  710  1600 3200 1600  4800 6319   81  3200 6400 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.14 0.14  0.09 0.07 0.00  0.18 0.25 0.25  0.03 0.15 0.00
Crit Moves:       ****       ****            ****                  ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                              EXISTING CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                            Turning Movement Report
                                     NONE

Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume

#101 IRVINE AVE/DOVER DR
Base     90  743     3   213 1218    79    63  129    68    37  149   256   3048
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    90  743     3   213 1218    79    63  129    68    37  149   256   3048

#102 IRVINE AVE/17TH ST
Base    303  435    48   143  521   336   310  577   233    98  671    66   3741
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   303  435    48   143  521   336   310  577   233    98  671    66   3741

#103 DOVER DR/WESTCLIFF DR
Base    586  569     0     0  312    63   115    0   547     0    0     0   2192
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   586  569     0     0  312    63   115    0   547     0    0     0   2192

#104 DOVER DR/16TH ST
Base    123 1040    38    63  897    20    21   23   121    21   11    51   2429
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   123 1040    38    63  897    20    21   23   121    21   11    51   2429

#105 DOVER DR/CLIFF DR
Base    124 1204     0     0 1033    61    49    0   116     0    0     0   2587
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   124 1204     0     0 1033    61    49    0   116     0    0     0   2587

#106 NEWPORT BLVD/COAST HWY
Base      0    0     0   592    0   397     0 1274   161     0 1841   492   4757
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total     0    0     0   592    0   397     0 1274   161     0 1841   492   4757

#107 RIVERSIDE AVE/COAST HWY
Base     10   11     2    99    2   408   246 1387     5    11 2177    71   4429
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    10   11     2    99    2   408   246 1387     5    11 2177    71   4429

#108 TUSTIN AVE/COAST HWY
Base      0    1     2    56    0    27    95 1390    20     0 2252    53   3896
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total     0    1     2    56    0    27    95 1390    20     0 2252    53   3896

#109 BALBOA BAY DRIVEWAY/COAST HWY
Base     32    0    36     9    0    12     4 1731    33    43 2046    13   3959
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    32    0    36     9    0    12     4 1731    33    43 2046    13   3959
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                              EXISTING CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume


#110 DOVER DR - BAY SHORE DR/COAST HWY
Base     35   42    41   927   62   120   146 1283    25    51 2175  1031   5938
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    35   42    41   927   62   120   146 1283    25    51 2175  1031   5938

#111 BAYSIDE DR/COAST HWY
Base    300    9    37    16    9    42    44 1968   390    85 2810    40   5750
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   300    9    37    16    9    42    44 1968   390    85 2810    40   5750

#112 JAMBOREE RD/COAST HWY
Base     34  244    84   200  431  1181   743 1277    19   197 1896   145   6451
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    34  244    84   200  431  1181   743 1277    19   197 1896   145   6451
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                              EXISTING CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
        ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #101 IRVINE AVE/DOVER DR
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.661
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        55                Level Of Service:                  B
********************************************************************************
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  1  1  0    1  0  1  1  0    1  0  0  1  0    1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      90  743     3   213 1218    79    63  129    68    37  149   256
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:   90  743     3   213 1218    79    63  129    68    37  149   256
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:    90  743     3   213 1218    79    63  129    68    37  149   256
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   90  743     3   213 1218    79    63  129    68    37  149   256
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:   90  743     3   213 1218    79    63  129    68    37  149   256
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.99  0.01  1.00 1.88  0.12  1.00 0.65  0.35  1.00 1.00  1.00
Final Sat.:  1600 3187    13  1600 3005   195  1600 1048   552  1600 1600  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.06 0.23  0.23  0.13 0.41  0.41  0.04 0.12  0.12  0.02 0.09  0.16
Crit Moves:  ****                  ****        ****                        ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                              EXISTING CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
        ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #102 IRVINE AVE/17TH ST
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.690
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        73                Level Of Service:                  B
********************************************************************************
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:        2  0  1  1  0    2  0  1  1  0    2  0  1  1  0    2  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     303  435    48   143  521   336   310  577   233    98  671    66
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:  303  435    48   143  521   336   310  577   233    98  671    66
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:   303  435    48   143  521   336   310  577   233    98  671    66
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  303  435    48   143  521   336   310  577   233    98  671    66
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:  303  435    48   143  521   336   310  577   233    98  671    66
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       2.00 1.80  0.20  2.00 1.22  0.78  2.00 1.42  0.58  2.00 1.82  0.18
Final Sat.:  3200 2882   318  3200 1945  1255  3200 2280   920  3200 2913   287
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.09 0.15  0.15  0.04 0.27  0.27  0.10 0.25  0.25  0.03 0.23  0.23
Crit Moves:  ****                  ****        ****                  ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
                             EXISTING CONDITIONS
                                PM PEAK HOUR
--------------------------------------------------------------------------------

                     Level Of Service Computation Report
        ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #103 DOVER DR/WESTCLIFF DR
********************************************************************************
Cycle (sec):          100              Critical Vol./Cap.(X):         0.414
Loss Time (sec):        0              Average Delay (sec/veh):      xxxxxx
Optimal Cycle:         39              Level Of Service:                  A
********************************************************************************
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          Ignore          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:       2  0  2  0  0   0  0  1  0  1   2  0  0  0  1   0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:    586  569    0    0  312   63  115    0  547    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: 586  569    0    0  312   63  115    0  547    0    0    0
User Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Volume:  586  569    0    0  312   63  115    0    0    0    0    0
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 586  569    0    0  312   63  115    0    0    0    0    0
PCE Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
MLF Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
FinalVolume: 586  569    0    0  312   63  115    0    0    0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
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:      2.00 2.00 0.00 0.00 1.00 1.00 2.00 0.00 1.00 0.00 0.00 0.00
Final Sat.: 3200 3200    0    0 1600 1600 3200    0 1600    0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.18 0.18 0.00 0.00 0.20 0.04 0.04 0.00 0.00 0.00 0.00 0.00
Crit Moves: ****                ****      ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
                             EXISTING CONDITIONS
                                PM PEAK HOUR
--------------------------------------------------------------------------------

                     Level Of Service Computation Report
        ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #104 DOVER DR/16TH ST
********************************************************************************
Cycle (sec):          100              Critical Vol./Cap.(X):         0.493
Loss Time (sec):        0              Average Delay (sec/veh):      xxxxxx
Optimal Cycle:         37              Level Of Service:                  A
********************************************************************************
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  1  1  0   1  0  1  1  0   0  0  1! 0  0   1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:    123 1040   38   63  897   20   21   23  121   21   11   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: 123 1040   38   63  897   20   21   23  121   21   11   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:    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:  123 1040   38   63  897   20   21   23  121   21   11   51
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 123 1040   38   63  897   20   21   23  121   21   11   51
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: 123 1040   38   63  897   20   21   23  121   21   11   51
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
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 1.93 0.07 1.00 1.96 0.04 0.13 0.14 0.73 1.00 1.00 1.00
Final Sat.: 1600 3087  113 1600 3130   70  204  223 1173 1600 1600 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.08 0.34 0.34 0.04 0.29 0.29 0.01 0.10 0.10 0.01 0.01 0.03
Crit Moves:      ****      ****                ****      ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                              EXISTING CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
        ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #105 DOVER DR/CLIFF DR
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.492
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        45                Level Of Service:                  A
********************************************************************************
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  0    0  0  1  1  0    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     124 1204     0     0 1033    61    49    0   116     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:  124 1204     0     0 1033    61    49    0   116     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:   124 1204     0     0 1033    61    49    0   116     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  124 1204     0     0 1033    61    49    0   116     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:  124 1204     0     0 1033    61    49    0   116     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 2.00  0.00  0.00 1.89  0.11  1.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:  1600 3200     0     0 3022   178  1600    0  1600     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.38  0.00  0.00 0.34  0.34  0.03 0.00  0.07  0.00 0.00  0.00
Crit Moves:  ****                  ****                   ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                              EXISTING CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
        ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #106 NEWPORT BLVD/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.646
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        64                Level Of Service:                  B
********************************************************************************
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       Protected        Protected
Rights:           Include          Include        Ignore           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  0  0  0    2  0  0  0  1    0  0  2  0  1    0  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0   592    0   397     0 1274   161     0 1841   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    0     0   592    0   397     0 1274   161     0 1841   492
User 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
PHF 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
PHF Volume:     0    0     0   592    0   397     0 1274     0     0 1841     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0   592    0   397     0 1274     0     0 1841     0
PCE 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
MLF 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
FinalVolume:    0    0     0   592    0   397     0 1274     0     0 1841     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.00 0.00  0.00  2.00 0.00  1.00  0.00 2.00  1.00  0.00 3.00  1.00
Final Sat.:     0    0     0  3200    0  1600     0 3200  1600     0 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.19 0.00  0.25  0.00 0.40  0.00  0.00 0.38  0.00
Crit Moves:                              ****       ****        ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                              EXISTING CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
        ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #107 RIVERSIDE AVE/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.715
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        65                Level Of Service:                  C
********************************************************************************
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       Protected        Protected
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:        0  0  1! 0  0    0  1  0  0  1    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10   11     2    99    2   408   246 1387     5    11 2177    71
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   11     2    99    2   408   246 1387     5    11 2177    71
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:    10   11     2    99    2   408   246 1387     5    11 2177    71
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   10   11     2    99    2   408   246 1387     5    11 2177    71
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   11     2    99    2   408   246 1387     5    11 2177    71
OvlAdjVol:                                162
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 0.48  0.09  0.98 0.02  1.00  1.00 1.99  0.01  1.00 3.00  1.00
Final Sat.:   696  765   139  1568   32  1600  1600 3189    11  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.01  0.01  0.06 0.06  0.26  0.15 0.43  0.44  0.01 0.45  0.04
OvlAdjV/S:                               0.10
Crit Moves:  ****                        ****  ****                  ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                              EXISTING CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
        ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #108 TUSTIN AVE/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.580
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        44                Level Of Service:                  A
********************************************************************************
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       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  1  0    0  0  1! 0  0    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    1     2    56    0    27    95 1390    20     0 2252    53
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    1     2    56    0    27    95 1390    20     0 2252    53
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:     0    1     2    56    0    27    95 1390    20     0 2252    53
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    1     2    56    0    27    95 1390    20     0 2252    53
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    1     2    56    0    27    95 1390    20     0 2252    53
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.00 0.33  0.67  0.67 0.00  0.33  1.00 1.97  0.03  1.00 3.00  1.00
Final Sat.:     0  533  1067  1080    0   520  1600 3155    45  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.04 0.00  0.05  0.06 0.44  0.44  0.00 0.47  0.03
Crit Moves:  ****                        ****  ****                  ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                      MARINERS POINTE - 10-107807
                         EXISTING CONDITIONS
                            PM PEAK HOUR
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #109 BALBOA BAY DRIVEWAY/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):        0.694
Loss Time (sec):       0                Average Delay (sec/veh):     xxxxxx
Optimal Cycle:        61                Level Of Service:                 B
********************************************************************************
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        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  1! 0  0    0  0  1! 0  0    1  0  2  0  1    1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      32    0    36    9    0    12    4 1731    33   43 2046    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:   32    0    36    9    0    12    4 1731    33   43 2046    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:     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:    32    0    36    9    0    12    4 1731    33   43 2046    13
Reduct Vol:     0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:   32    0    36    9    0    12    4 1731    33   43 2046    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:   32    0    36    9    0    12    4 1731    33   43 2046    13
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600  1600
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:       0.47 0.00  0.53 0.43 0.00  0.57 1.00 2.00  1.00 1.00 1.99  0.01
Final Sat.:   753    0   847  686    0   914 1600 3200  1600 1600 3180    20
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.00  0.04 0.01 0.00  0.01 0.00 0.54  0.02 0.03 0.64  0.64
Crit Moves:             **** ****             ****                   ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                      MARINERS POINTE - 10-107807
                         EXISTING CONDITIONS
                            PM PEAK HOUR
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #110 DOVER DR - BAY SHORE DR/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):        0.718
Loss Time (sec):       0                Average Delay (sec/veh):     xxxxxx
Optimal Cycle:        81                Level Of Service:                 C
********************************************************************************
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       Protected        Protected
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:       1  0  1  1  0    3  0  1  0  1    2  0  2  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      35   42    41  927   62   120  146 1283    25   51 2175  1031
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   42    41  927   62   120  146 1283    25   51 2175  1031
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:    35   42    41  927   62   120  146 1283    25   51 2175     0
Reduct Vol:     0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:   35   42    41  927   62   120  146 1283    25   51 2175     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:   35   42    41  927   62   120  146 1283    25   51 2175     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600  1600
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 1.01  0.99 3.00 1.00  1.00 2.00 2.94  0.06 1.00 3.00  1.00
Final Sat.:  1600 1619  1581 4800 1600  1600 3200 4708    92 1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.03  0.03 0.19 0.04  0.08 0.05 0.27  0.27 0.03 0.45  0.00
Crit Moves:             **** ****             ****                   ****
********************************************************************************
```

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EX-PM                   Mon Jan 31, 2011 09:27:47                 Page 13-1
---------------------------------------------------------------------------
                      MARINERS POINTE - 10-107807
                         EXISTING CONDITIONS
                            PM PEAK HOUR
---------------------------------------------------------------------------
                   Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
***************************************************************************
Intersection #111 BAYSIDE DR/COAST HWY
***************************************************************************
Cycle (sec):        100                Critical Vol./Cap.(X):         0.571
Loss Time (sec):      0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:       53                Level Of Service:                  A
***************************************************************************
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       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:        2  0  1! 0  0   1  0  0  1  0   1  0  3  0  1   1  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     300    9   37    16    9   42    44 1968  390    85 2810   40
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:  300    9   37    16    9   42    44 1968  390    85 2810   40
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:   300    9   37    16    9   42    44 1968  390    85 2810   40
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  300    9   37    16    9   42    44 1968  390    85 2810   40
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:  300    9   37    16    9   42    44 1968  390    85 2810   40
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600
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:       2.60 0.08 0.32  1.00 0.18 0.82  1.00 3.00 1.00  1.00 4.00 1.00
Final Sat.:  4162  125  513  1600  282 1318  1600 4800 1600  1600 6400 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.07 0.07 0.07  0.01 0.03 0.03  0.03 0.41 0.24  0.05 0.44 0.03
Crit Moves:       ****            ****       ****                   ****
***************************************************************************
```

```
EX-PM                   Mon Jan 31, 2011 09:27:47                 Page 14-1
---------------------------------------------------------------------------
                      MARINERS POINTE - 10-107807
                         EXISTING CONDITIONS
                            PM PEAK HOUR
---------------------------------------------------------------------------
                   Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
***************************************************************************
Intersection #112 JAMBOREE RD/COAST HWY
***************************************************************************
Cycle (sec):        100                Critical Vol./Cap.(X):         0.679
Loss Time (sec):      0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:       71                Level Of Service:                  B
***************************************************************************
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          Ignore           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:        1  0  1  1  0   1  0  2  0  1   3  0  3  1  0   2  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      34  244   84   200  431 1181   743 1277   19   197 1896  145
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:   34  244   84   200  431 1181   743 1277   19   197 1896  145
User Adj:    1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00  1.00 1.00 0.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00  1.00 1.00 0.00
PHF Volume:    34  244   84   200  431    0   743 1277   19   197 1896    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   34  244   84   200  431    0   743 1277   19   197 1896    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 0.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00  1.00 1.00 0.00
FinalVolume:   34  244   84   200  431    0   743 1277   19   197 1896    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600
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 1.49 0.51  1.00 2.00 1.00  3.00 3.94 0.06  2.00 4.00 1.00
Final Sat.:  1600 2380  820  1600 3200 1600  4800 6306   94  3200 6400 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.10 0.10  0.13 0.13 0.00  0.15 0.20 0.20  0.06 0.30 0.00
Crit Moves:       ****       ****            ****                   ****
***************************************************************************
```

Forecast Existing Plus Project Conditions

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                            Turning Movement Report
                                    PROJ-AM

Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume

#101 IRVINE AVE/DOVER DR
Base     74  723    17   190  637    32    53  135    58    19  106   256   2300
Added     0    0     0     1    1     0     0    0     0     0    0     0      2
Total    74  723    17   191  638    32    53  135    58    19  106   256   2302

#102 IRVINE AVE/17TH ST
Base    313  530    26   214  435   136   201  478   198    27  307    58   2923
Added     0    0     0     1    0     0     0    1     0     0    0     0      2
Total   313  530    26   215  435   136   201  479   198    27  307    58   2925

#103 DOVER DR/WESTCLIFF DR
Base    343  436     0     0  376    57    83    0   568     0    0     0   1863
Added     0    0     0     0    1     0     0    0     2     0    0     0      3
Total   343  436     0     0  377    57    83    0   570     0    0     0   1866

#104 DOVER DR/16TH ST
Base    118  657    29    38 1000    56    43   19   171    62   13    53   2259
Added     0    1     0     0    3     0     0    0     1     0    0     0      5
Total   118  658    29    38 1003    56    43   19   172    62   13    53   2264

#105 DOVER DR/CLIFF DR
Base    116  693     0     0  963   242   109    0   154     0    0     0   2277
Added     0    1     0     0    4     0     0    0     1     0    0     0      6
Total   116  694     0     0  967   242   109    0   155     0    0     0   2283

#106 NEWPORT BLVD/COAST HWY
Base      0    0     0   387    0   291     0 2103   190     0  820   352   4143
Added     0    0     0     1    0     0     0    1     0     0    0     0      2
Total     0    0     0   388    0   291     0 2104   190     0  820   352   4145

#107 RIVERSIDE AVE/COAST HWY
Base      0    0     1    78    4   307   315 1912     4    17 1135    68   3841
Added     0    0     0     1    0     0     0    4     0     0    1     0      6
Total     0    0     1    79    4   307   315 1916     4    17 1136    68   3847

#108 TUSTIN AVE/COAST HWY
Base      0    0     0    33    1    14    42 2012     1     1 1232    35   3371
Added     0    0     0     0    0     0     0    5     0     0    1     0      6
Total     0    0     0    33    1    14    42 2017     1     1 1233    35   3377

#109 BALBOA BAY DRIVEWAY/COAST HWY
Base     26    0    26     1    3     1     5 1882    39    60 1405    11   3459
Added     0    0     0     0    0     0     0    5     0     2    1     0      8
Total    26    0    26     1    3     1     5 1887    39    62 1406    11   3467
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume


#110 DOVER DR - BAY SHORE DR/COAST HWY
Base     16   62    29   848   52   109   118 1931    25    42 1224   474   4930
Added     0    0     0     0    0     5     6    1     0     0    3     0     15
Total    16   62    29   848   52   114   124 1932    25    42 1227   474   4945

#111 BAYSIDE DR/COAST HWY
Base    316    7    37    17    8    36    47 2223   350    56 1493    16   4606
Added     1    0     0     0    0     0     0    0     0     0    2     0      3
Total   317    7    37    17    8    36    47 2223   350    56 1495    16   4609

#112 JAMBOREE RD/COAST HWY
Base     25  354   101   144  229   617   859 1560    20   100  953    77   5039
Added     0    0     0     0    0     1     0    0     0     0    1     0      2
Total    25  354   101   144  229   618   859 1560    20   100  954    77   5041

#113 DRIVEWAY
Base      0    0     0     0    0     0     0    0     0     0    0     0      0
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total     0    0     0     0    0     0     0    0     0     0    0     0      0

#120
Base      0    0     0     0    0     0     0    0     0     0    0     0      0
Added     0    0     2     0    0     0     0    5     0     0    8     0     15
Total     0    0     2     0    0     0     0    5     0     0    8     0     15
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #101 IRVINE AVE/DOVER DR
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.544
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        41                Level Of Service:                  A
********************************************************************************
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  1  1  0    1  0  1  1  0    1  0  0  1  0    1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      74  723    17   190  637    32    53  135    58    19  106   256
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:   74  723    17   190  637    32    53  135    58    19  106   256
Added Vol:      0    0     0     1    1     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   74  723    17   191  638    32    53  135    58    19  106   256
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:    74  723    17   191  638    32    53  135    58    19  106   256
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   74  723    17   191  638    32    53  135    58    19  106   256
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  723    17   191  638    32    53  135    58    19  106   256
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.95  0.05  1.00 1.90  0.10  1.00 0.70  0.30  1.00 1.00  1.00
Final Sat.:  1600 3126    74  1600 3047   153  1600 1119   481  1600 1600  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.05 0.23  0.23  0.12 0.21  0.21  0.03 0.12  0.12  0.01 0.07  0.16
Crit Moves:       ****        ****             ****                         ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #102 IRVINE AVE/17TH ST
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.496
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        45                Level Of Service:                  A
********************************************************************************
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:         2  0  1  1  0    2  0  1  1  0    2  0  1  1  0    2  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     313  530    26   214  435   136   201  478   198    27  307    58
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:  313  530    26   214  435   136   201  478   198    27  307    58
Added Vol:      0    0     0     1    0     0     0    1     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  313  530    26   215  435   136   201  479   198    27  307    58
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:   313  530    26   215  435   136   201  479   198    27  307    58
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  313  530    26   215  435   136   201  479   198    27  307    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:  313  530    26   215  435   136   201  479   198    27  307    58
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       2.00 1.91  0.09  2.00 1.52  0.48  2.00 1.42  0.58  2.00 1.68  0.32
Final Sat.:  3200 3050   150  3200 2438   762  3200 2264   936  3200 2692   508
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.10 0.17  0.17  0.07 0.18  0.18  0.06 0.21  0.21  0.01 0.11  0.11
Crit Moves:  ****                  ****             ****        ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #103 DOVER DR/WESTCLIFF DR
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):          0.369
Loss Time (sec):       0                Average Delay (sec/veh):       xxxxxx
Optimal Cycle:        36                Level Of Service:                  A
********************************************************************************
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          Ignore           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:        2  0  2  0  0    0  0  1  0  1    2  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:    343  436     0     0  376    57    83    0   568     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: 343  436     0     0  376    57    83    0   568     0    0     0
Added Vol:     0    0     0     0    1     0     0    0     2     0    0     0
PasserByVol:   0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut: 343  436     0     0  377    57    83    0   570     0    0     0
User Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Volume:  343  436     0     0  377    57    83    0     0     0    0     0
Reduct Vol:    0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol: 343  436     0     0  377    57    83    0     0     0    0     0
PCE Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
MLF Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
FinalVolume: 343  436     0     0  377    57    83    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:      2.00 2.00  0.00  0.00 1.00  1.00  2.00 0.00  1.00  0.00 0.00  0.00
Final Sat.: 3200 3200     0     0 1600  1600  3200    0  1600     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.11 0.14  0.00  0.00 0.24  0.04  0.03 0.00  0.00  0.00 0.00  0.00
Crit Moves: ****                  ****        ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #104 DOVER DR/16TH ST
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):          0.590
Loss Time (sec):       0                Average Delay (sec/veh):       xxxxxx
Optimal Cycle:        45                Level Of Service:                  A
********************************************************************************
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  1  1  0    1  0  1  1  0    0  0  1! 0  0    1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:    118  657    29    38 1000    56    43   19   171    62   13    53
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: 118  657    29    38 1000    56    43   19   171    62   13    53
Added Vol:     0    1     0     0    3     0     0    0     1     0    0     0
PasserByVol:   0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut: 118  658    29    38 1003    56    43   19   172    62   13    53
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:  118  658    29    38 1003    56    43   19   172    62   13    53
Reduct Vol:    0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol: 118  658    29    38 1003    56    43   19   172    62   13    53
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: 118  658    29    38 1003    56    43   19   172    62   13    53
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.92  0.08  1.00 1.89  0.11  0.18 0.08  0.74  1.00 1.00  1.00
Final Sat.: 1600 3065   135  1600 3031   169   294  130  1176  1600 1600  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.07 0.21  0.21  0.02 0.33  0.33  0.03 0.15  0.15  0.04 0.01  0.03
Crit Moves: ****                  ****             ****        ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                       MARINERS POINTE - 10-107807
                 FORECAST EXISTING PLUS PROJECT CONDITIONS
                               AM PEAK HOUR
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #105 DOVER DR/CLIFF DR
********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):         0.547
Loss Time (sec):       0              Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        50              Level Of Service:                  A
********************************************************************************
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  0  0  0  1  1  0  1  0  0  0  1  0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     116  693    0    0  963  242  109    0  154    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:  116  693    0    0  963  242  109    0  154    0    0    0
Added Vol:      0    1    0    0    4    0    0    0    1    0    0    0
PasserByVol:    0    0    0    0    0    0    0    0    0    0    0    0
Initial Fut:  116  694    0    0  967  242  109    0  155    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:   116  694    0    0  967  242  109    0  155    0    0    0
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  116  694    0    0  967  242  109    0  155    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:  116  694    0    0  967  242  109    0  155    0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
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 2.00 0.00 0.00 1.60 0.40 1.00 0.00 1.00 0.00 0.00 0.00
Final Sat.:  1600 3200    0    0 2559  641 1600    0 1600    0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.07 0.22 0.00 0.00 0.38 0.38 0.07 0.00 0.10 0.00 0.00 0.00
Crit Moves:  ****                ****                ****
********************************************************************************
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--------------------------------------------------------------------------------
                       MARINERS POINTE - 10-107807
                 FORECAST EXISTING PLUS PROJECT CONDITIONS
                               AM PEAK HOUR
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #106 NEWPORT BLVD/COAST HWY
********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):         0.839
Loss Time (sec):       0              Average Delay (sec/veh):      xxxxxx
Optimal Cycle:       142              Level Of Service:                  D
********************************************************************************
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       Protected        Protected
Rights:          Include          Include          Ignore           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  0  0  0  2  0  0  0  1  0  0  2  0  1  0  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0    0  387    0  291    0 2103  190    0  820  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:    0    0    0  387    0  291    0 2103  190    0  820  352
Added Vol:      0    0    0    1    0    0    0    1    0    0    0    0
PasserByVol:    0    0    0    0    0    0    0    0    0    0    0    0
Initial Fut:    0    0    0  388    0  291    0 2104  190    0  820  352
User 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
PHF 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
PHF Volume:     0    0    0  388    0  291    0 2104    0    0  820    0
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:    0    0    0  388    0  291    0 2104    0    0  820    0
PCE 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
MLF 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
FinalVolume:    0    0    0  388    0  291    0 2104    0    0  820    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
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:       0.00 0.00 0.00 2.00 0.00 1.00 0.00 2.00 1.00 0.00 3.00 1.00
Final Sat.:     0    0    0 3200    0 1600    0 3200 1600    0 4800 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00 0.00 0.12 0.00 0.18 0.00 0.66 0.00 0.00 0.17 0.00
Crit Moves:                            ****      ****           ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #107 RIVERSIDE AVE/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.660
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        55                Level Of Service:                  B
********************************************************************************
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       Protected        Protected
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:        0  0  0  0  1    0  1  0  0  1    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     1    78    4   307   315 1912     4    17 1135    68
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     1    78    4   307   315 1912     4    17 1135    68
Added Vol:      0    0     0     1    0     0     0    4     0     0    1     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0     1    79    4   307   315 1916     4    17 1136    68
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:     0    0     1    79    4   307   315 1916     4    17 1136    68
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     1    79    4   307   315 1916     4    17 1136    68
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     1    79    4   307   315 1916     4    17 1136    68
OvlAdjVol:                                  0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.00 0.00  1.00  0.95 0.05  1.00  1.00 1.99  0.01  1.00 3.00  1.00
Final Sat.:     0    0  1600  1523   77  1600  1600 3193     7  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.05 0.05  0.19  0.20 0.60  0.60  0.01 0.24  0.04
OvlAdjV/S:                               0.00
Crit Moves:       ****        ****                ****        ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #108 TUSTIN AVE/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.661
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        55                Level Of Service:                  B
********************************************************************************
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       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  1! 0  0    0  0  1! 0  0    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0    33    1    14    42 2012     1     1 1232    35
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    33    1    14    42 2012     1     1 1232    35
Added Vol:      0    0     0     0    0     0     0    5     0     0    1     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0     0    33    1    14    42 2017     1     1 1233    35
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:     0    0     0    33    1    14    42 2017     1     1 1233    35
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0    33    1    14    42 2017     1     1 1233    35
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    33    1    14    42 2017     1     1 1233    35
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.00 1.00  0.00  0.69 0.02  0.29  1.00 1.99  0.01  1.00 3.00  1.00
Final Sat.:     0 1600     0  1100   33   467  1600 3198     2  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.02 0.03  0.03  0.03 0.63  0.63  0.00 0.26  0.02
Crit Moves:                        ****             ****        ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #109 BALBOA BAY DRIVEWAY/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.662
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        55                Level Of Service:                  B
********************************************************************************
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       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  1! 0  0    0  0  1! 0  0    1  0  2  0  1    1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      26    0    26     1    3     1     5 1882    39    60 1405    11
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:   26    0    26     1    3     1     5 1882    39    60 1405    11
Added Vol:      0    0     0     0    0     0     0    5     0     2    1     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   26    0    26     1    3     1     5 1887    39    62 1406    11
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:    26    0    26     1    3     1     5 1887    39    62 1406    11
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   26    0    26     1    3     1     5 1887    39    62 1406    11
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:   26    0    26     1    3     1     5 1887    39    62 1406    11
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.50 0.00  0.50  0.20 0.60  0.20  1.00 2.00  1.00  1.00 1.98  0.02
Final Sat.:   800    0   800   320  960   320  1600 3200  1600  1600 3175    25
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.00  0.03  0.00 0.00  0.00  0.00 0.59  0.02  0.04 0.44  0.44
Crit Moves:             ****  ****                  ****        ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #110 DOVER DR - BAY SHORE DR/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.639
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        63                Level Of Service:                  B
********************************************************************************
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       Protected        Protected
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:        1  0  1  1  0    3  0  1  0  1    2  0  2  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      16   62    29   848   52   109   118 1931    25    42 1224   474
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:   16   62    29   848   52   109   118 1931    25    42 1224   474
Added Vol:      0    0     0     0    0     5     6    1     0     0    3     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   16   62    29   848   52   114   124 1932    25    42 1227   474
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:    16   62    29   848   52   114   124 1932    25    42 1227     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   16   62    29   848   52   114   124 1932    25    42 1227     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:   16   62    29   848   52   114   124 1932    25    42 1227     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.36  0.64  3.00 1.00  1.00  2.00 2.96  0.04  1.00 3.00  1.00
Final Sat.:  1600 2180  1020  4800 1600  1600  3200 4739    61  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.03  0.03  0.18 0.03  0.07  0.04 0.41  0.41  0.03 0.26  0.00
Crit Moves:       ****        ****                  ****        ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                  AM PEAK HOUR
--------------------------------------------------------------------------------
                       Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #111 BAYSIDE DR/COAST HWY
********************************************************************************
Cycle (sec):        100              Critical Vol./Cap.(X):         0.601
Loss Time (sec):      0              Average Delay (sec/veh):      xxxxxx
Optimal Cycle:       57              Level Of Service:                  B
********************************************************************************
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       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:        2  0  1! 0  0   1  0  0  1  0   1  0  3  0  1   1  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      316    7   37   17    8   36   47 2223  350   56 1493   16
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:   316    7   37   17    8   36   47 2223  350   56 1493   16
Added Vol:       1    0    0    0    0    0    0    0    0    0    2    0
PasserByVol:     0    0    0    0    0    0    0    0    0    0    0    0
Initial Fut:   317    7   37   17    8   36   47 2223  350   56 1495   16
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:    317    7   37   17    8   36   47 2223  350   56 1495   16
Reduct Vol:      0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   317    7   37   17    8   36   47 2223  350   56 1495   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:   317    7   37   17    8   36   47 2223  350   56 1495   16
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
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:        2.63 0.06 0.31 1.00 0.18 0.82 1.00 3.00 1.00 1.00 4.00 1.00
Final Sat.:   4215   93  492 1600  291 1309 1600 4800 1600 1600 6400 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.08 0.08 0.08 0.01 0.03 0.03 0.03 0.46 0.22 0.04 0.23 0.01
Crit Moves:        ****           ****           ****      ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                  AM PEAK HOUR
--------------------------------------------------------------------------------
                       Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #112 JAMBOREE RD/COAST HWY
********************************************************************************
Cycle (sec):        100              Critical Vol./Cap.(X):         0.560
Loss Time (sec):      0              Average Delay (sec/veh):      xxxxxx
Optimal Cycle:       52              Level Of Service:                  A
********************************************************************************
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           Ignore          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:        1  0  1  1  0   1  0  2  0  1   3  0  3  1  0   2  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       25  354  101  144  229  617  859 1560   20  100  953   77
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:    25  354  101  144  229  617  859 1560   20  100  953   77
Added Vol:       0    0    0    0    0    1    0    0    0    0    1    0
PasserByVol:     0    0    0    0    0    0    0    0    0    0    0    0
Initial Fut:    25  354  101  144  229  618  859 1560   20  100  954   77
User Adj:     1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj:      1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Volume:     25  354  101  144  229    0  859 1560   20  100  954    0
Reduct Vol:      0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:    25  354  101  144  229    0  859 1560   20  100  954    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 0.00
MLF Adj:      1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume:    25  354  101  144  229    0  859 1560   20  100  954    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
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 1.56 0.44 1.00 2.00 1.00 3.00 3.95 0.05 2.00 4.00 1.00
Final Sat.:   1600 2490  710 1600 3200 1600 4800 6319   81 3200 6400 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.02 0.14 0.14 0.09 0.07 0.00 0.18 0.25 0.25 0.03 0.15 0.00
Crit Moves:        ****      ****           ****                ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                            Turning Movement Report
                                    PROJ-PM

Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume

#101 IRVINE AVE/DOVER DR
Base     90  743     3   213 1218    79    63  129    68    37  149   256   3048
Added     0    2     0     2    2     0     0    0     0     0    0     2      8
Total    90  745     3   215 1220    79    63  129    68    37  149   258   3056

#102 IRVINE AVE/17TH ST
Base    303  435    48   143  521   336   310  577   233    98  671    66   3741
Added     0    0     0     2    0     0     0    5     0     0    4     2     13
Total   303  435    48   145  521   336   310  582   233    98  675    68   3754

#103 DOVER DR/WESTCLIFF DR
Base    586  569     0     0  312    63   115    0   547     0    0     0   2192
Added     5    4     0     0    5     0     0    0     7     0    0     0     21
Total   591  573     0     0  317    63   115    0   554     0    0     0   2213

#104 DOVER DR/16TH ST
Base    123 1040    38    63  897    20    21   23   121    21   11    51   2429
Added     2    9     0     0   12     0     0    0     2     0    0     0     25
Total   125 1049    38    63  909    20    21   23   123    21   11    51   2454

#105 DOVER DR/CLIFF DR
Base    124 1204     0     0 1033    61    49    0   116     0    0     0   2587
Added     4   11     0     0   14     0     0    0     5     0    0     0     34
Total   128 1215     0     0 1047    61    49    0   121     0    0     0   2621

#106 NEWPORT BLVD/COAST HWY
Base      0    0     0   592    0   397     0 1274   161     0 1841   492   4757
Added     0    0     0     5    0     0     0    5     0     0    4     0     14
Total     0    0     0   597    0   397     0 1279   161     0 1845   492   4771

#107 RIVERSIDE AVE/COAST HWY
Base     10   11     2    99    2   408   246 1387     5    11 2177    71   4429
Added     0    0     0     2    0     0     0   14     0     0   11     2     29
Total    10   11     2   101    2   408   246 1401     5    11 2188    73   4458

#108 TUSTIN AVE/COAST HWY
Base      0    1     2    56    0    27    95 1390    20     0 2252    53   3896
Added     0    0     0     0    0     0     0   17     0     0   13     0     30
Total     0    1     2    56    0    27    95 1407    20     0 2265    53   3926

#109 BALBOA BAY DRIVEWAY/COAST HWY
Base     32    0    36     9    0    12     4 1731    33    43 2046    13   3959
Added     0    0     0     0    0     0     0   17     0    23   13     0     53
Total    32    0    36     9    0    12     4 1748    33    66 2059    13   4012
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume


#110 DOVER DR - BAY SHORE DR/COAST HWY
Base     35   42    41   927   62   120   146 1283    25    51 2175  1031   5938
Added     0    0     0     0    0    19    31    9     0     0   12     0     71
Total    35   42    41   927   62   139   177 1292    25    51 2187  1031   6009

#111 BAYSIDE DR/COAST HWY
Base    300    9    37    16    9    42    44 1968   390    85 2810    40   5750
Added     5    0     0     0    0     0     0    5     4     0    7     0     21
Total   305    9    37    16    9    42    44 1973   394    85 2817    40   5771

#112 JAMBOREE RD/COAST HWY
Base     34  244    84   200  431  1181   743 1277    19   197 1896   145   6451
Added     0    0     0     0    0     2     2    4     0     0    5     0     13
Total    34  244    84   200  431  1183   745 1281    19   197 1901   145   6464

#113 DRIVEWAY
Base      0    0     0     0    0     0     0    0     0     0    0     0      0
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total     0    0     0     0    0     0     0    0     0     0    0     0      0

#120
Base      0    0     0     0    0     0     0    0     0     0    0     0      0
Added     0    0    23     0    0     0     0   17     0     0   31     0     71
Total     0    0    23     0    0     0     0   17     0     0   31     0     71
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #101 IRVINE AVE/DOVER DR
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.663
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        55                Level Of Service:                  B
********************************************************************************
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  1  1  0    1  0  1  1  0    1  0  0  1  0    1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      90  743     3   213 1218    79    63  129    68    37  149   256
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:   90  743     3   213 1218    79    63  129    68    37  149   256
Added Vol:      0    2     0     2    2     0     0    0     0     0    0     2
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   90  745     3   215 1220    79    63  129    68    37  149   258
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:    90  745     3   215 1220    79    63  129    68    37  149   258
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   90  745     3   215 1220    79    63  129    68    37  149   258
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:   90  745     3   215 1220    79    63  129    68    37  149   258
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.99  0.01  1.00 1.88  0.12  1.00 0.65  0.35  1.00 1.00  1.00
Final Sat.:  1600 3187    13  1600 3005   195  1600 1048   552  1600 1600  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.06 0.23  0.23  0.13 0.41  0.41  0.04 0.12  0.12  0.02 0.09  0.16
Crit Moves:  ****                  ****        ****                        ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #102 IRVINE AVE/17TH ST
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.692
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        74                Level Of Service:                  B
********************************************************************************
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:        2  0  1  1  0    2  0  1  1  0    2  0  1  1  0    2  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     303  435    48   143  521   336   310  577   233    98  671    66
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:  303  435    48   143  521   336   310  577   233    98  671    66
Added Vol:      0    0     0     2    0     0     0    5     0     0    4     2
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  303  435    48   145  521   336   310  582   233    98  675    68
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:   303  435    48   145  521   336   310  582   233    98  675    68
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  303  435    48   145  521   336   310  582   233    98  675    68
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:  303  435    48   145  521   336   310  582   233    98  675    68
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       2.00 1.80  0.20  2.00 1.22  0.78  2.00 1.43  0.57  2.00 1.82  0.18
Final Sat.:  3200 2882   318  3200 1945  1255  3200 2285   915  3200 2907   293
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.09 0.15  0.15  0.05 0.27  0.27  0.10 0.25  0.25  0.03 0.23  0.23
Crit Moves:  ****                  ****        ****                  ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #103 DOVER DR/WESTCLIFF DR
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.419
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        39                Level Of Service:                  A
********************************************************************************
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         Ignore            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:        2  0  2  0  0    0  0  1  0  1    2  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     586  569     0     0  312    63   115    0   547     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:  586  569     0     0  312    63   115    0   547     0    0     0
Added Vol:      5    4     0     0    5     0     0    0     7     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  591  573     0     0  317    63   115    0   554     0    0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Volume:   591  573     0     0  317    63   115    0     0     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  591  573     0     0  317    63   115    0     0     0    0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
FinalVolume:  591  573     0     0  317    63   115    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       2.00 2.00  0.00  0.00 1.00  1.00  2.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:  3200 3200     0     0 1600  1600  3200    0  1600     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.18 0.18  0.00  0.00 0.20  0.04  0.04 0.00  0.00  0.00 0.00  0.00
Crit Moves:  ****                  ****          ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #104 DOVER DR/16TH ST
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.497
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        37                Level Of Service:                  A
********************************************************************************
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  1  1  0    1  0  1  1  0    0  0  1! 0  0    1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     123 1040    38    63  897    20    21   23   121    21   11    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:  123 1040    38    63  897    20    21   23   121    21   11    51
Added Vol:      2    9     0     0   12     0     0    0     2     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  125 1049    38    63  909    20    21   23   123    21   11    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:     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:   125 1049    38    63  909    20    21   23   123    21   11    51
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  125 1049    38    63  909    20    21   23   123    21   11    51
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:  125 1049    38    63  909    20    21   23   123    21   11    51
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.93  0.07  1.00 1.96  0.04  0.12 0.14  0.74  1.00 1.00  1.00
Final Sat.:  1600 3088   112  1600 3131    69   201  220  1178  1600 1600  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.34  0.34  0.04 0.29  0.29  0.01 0.10  0.10  0.01 0.01  0.03
Crit Moves:       ****        ****                     ****        ****
********************************************************************************
```

```
------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
                 FORECAST EXISTING PLUS PROJECT CONDITIONS
                                PM PEAK HOUR
------------------------------------------------------------------------------
                    Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
******************************************************************************
Intersection #105 DOVER DR/CLIFF DR
******************************************************************************
Cycle (sec):        100               Critical Vol./Cap.(X):        0.502
Loss Time (sec):      0               Average Delay (sec/veh):     xxxxxx
Optimal Cycle:       46               Level Of Service:                 A
******************************************************************************
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  0   0  0  1  1  0   1  0  0  0  1   0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     124 1204     0     0 1033    61    49    0   116     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:  124 1204     0     0 1033    61    49    0   116     0    0     0
Added Vol:      4   11     0     0   14     0     0    0     5     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  128 1215     0     0 1047    61    49    0   121     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:   128 1215     0     0 1047    61    49    0   121     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  128 1215     0     0 1047    61    49    0   121     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:  128 1215     0     0 1047    61    49    0   121     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 2.00  0.00  0.00 1.89  0.11  1.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:  1600 3200     0     0 3024   176  1600    0  1600     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.38  0.00  0.00 0.35  0.35  0.03 0.00  0.08  0.00 0.00  0.00
Crit Moves:  ****                 ****                    ****
******************************************************************************
```

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------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
                 FORECAST EXISTING PLUS PROJECT CONDITIONS
                                PM PEAK HOUR
------------------------------------------------------------------------------
                    Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
******************************************************************************
Intersection #106 NEWPORT BLVD/COAST HWY
******************************************************************************
Cycle (sec):        100               Critical Vol./Cap.(X):        0.648
Loss Time (sec):      0               Average Delay (sec/veh):     xxxxxx
Optimal Cycle:       65               Level Of Service:                 B
******************************************************************************
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       Protected        Protected
Rights:           Include          Include          Ignore           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  0  0  0   2  0  0  0  1   0  0  2  0  1   0  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0   592    0   397     0 1274   161     0 1841   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    0     0   592    0   397     0 1274   161     0 1841   492
Added Vol:      0    0     0     5    0     0     0    5     0     0    4     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0     0   597    0   397     0 1279   161     0 1845   492
User 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
PHF 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
PHF Volume:     0    0     0   597    0   397     0 1279     0     0 1845     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0   597    0   397     0 1279     0     0 1845     0
PCE 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
MLF 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
FinalVolume:    0    0     0   597    0   397     0 1279     0     0 1845     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.00 0.00  0.00  2.00 0.00  1.00  0.00 2.00  1.00  0.00 3.00  1.00
Final Sat.:     0    0     0  3200    0  1600     0 3200  1600     0 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.19 0.00  0.25  0.00 0.40  0.00  0.00 0.38  0.00
Crit Moves:                               ****       ****         ****
******************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #107 RIVERSIDE AVE/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.717
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        66                Level Of Service:                  C
********************************************************************************
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       Protected        Protected
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:        0  0  1! 0  0    0  1  0  0  1    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10   11     2    99    2   408   246 1387     5    11 2177    71
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   11     2    99    2   408   246 1387     5    11 2177    71
Added Vol:      0    0     0     2    0     0     0   14     0     0   11     2
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   10   11     2   101    2   408   246 1401     5    11 2188    73
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:    10   11     2   101    2   408   246 1401     5    11 2188    73
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   10   11     2   101    2   408   246 1401     5    11 2188    73
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   11     2   101    2   408   246 1401     5    11 2188    73
OvlAdjVol:                                162
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 0.48  0.09  0.98 0.02  1.00  1.00 1.99  0.01  1.00 3.00  1.00
Final Sat.:   696  765   139  1569   31  1600  1600 3189    11  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.01  0.01  0.06 0.06  0.26  0.15 0.44  0.44  0.01 0.46  0.05
OvlAdjV/S:                               0.10
Crit Moves:  ****                        ****  ****                  ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #108 TUSTIN AVE/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.583
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        45                Level Of Service:                  A
********************************************************************************
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       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  1  0    0  0  1! 0  0    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    1     2    56    0    27    95 1390    20     0 2252    53
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    1     2    56    0    27    95 1390    20     0 2252    53
Added Vol:      0    0     0     0    0     0     0   17     0     0   13     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    1     2    56    0    27    95 1407    20     0 2265    53
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:     0    1     2    56    0    27    95 1407    20     0 2265    53
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    1     2    56    0    27    95 1407    20     0 2265    53
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    1     2    56    0    27    95 1407    20     0 2265    53
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.00 0.33  0.67  0.67 0.00  0.33  1.00 1.97  0.03  1.00 3.00  1.00
Final Sat.:     0  533  1067  1080    0   520  1600 3155    45  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.04 0.00  0.05  0.06 0.45  0.45  0.00 0.47  0.03
Crit Moves:  ****                        ****  ****                  ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #109 BALBOA BAY DRIVEWAY/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.698
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        62                Level Of Service:                  B
********************************************************************************
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       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  1! 0  0    0  0  1! 0  0    1  0  2  0  1    1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      32    0    36     9    0    12     4 1731    33    43 2046    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:   32    0    36     9    0    12     4 1731    33    43 2046    13
Added Vol:      0    0     0     0    0     0     0   17     0    23   13     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   32    0    36     9    0    12     4 1748    33    66 2059    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:     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:    32    0    36     9    0    12     4 1748    33    66 2059    13
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   32    0    36     9    0    12     4 1748    33    66 2059    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:   32    0    36     9    0    12     4 1748    33    66 2059    13
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.47 0.00  0.53  0.43 0.00  0.57  1.00 2.00  1.00  1.00 1.99  0.01
Final Sat.:   753    0   847   686    0   914  1600 3200  1600  1600 3180    20
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.00  0.04  0.01 0.00  0.01  0.00 0.55  0.02  0.04 0.65  0.65
Crit Moves:             ****  ****             ****                  ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #110 DOVER DR - BAY SHORE DR/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.730
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        84                Level Of Service:                  C
********************************************************************************
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       Protected        Protected
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:        1  0  1  1  0    3  0  1  0  1    2  0  2  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      35   42    41   927   62   120   146 1283    25    51 2175  1031
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   42    41   927   62   120   146 1283    25    51 2175  1031
Added Vol:      0    0     0     0    0    19    31    9     0     0   12     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   35   42    41   927   62   139   177 1292    25    51 2187  1031
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:    35   42    41   927   62   139   177 1292    25    51 2187     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   35   42    41   927   62   139   177 1292    25    51 2187     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:   35   42    41   927   62   139   177 1292    25    51 2187     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.01  0.99  3.00 1.00  1.00  2.00 2.94  0.06  1.00 3.00  1.00
Final Sat.:  1600 1619  1581  4800 1600  1600  3200 4709    91  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.03  0.03  0.19 0.04  0.09  0.06 0.27  0.27  0.03 0.46  0.00
Crit Moves:             ****  ****             ****                  ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #111 BAYSIDE DR/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.573
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        53                Level Of Service:                  A
********************************************************************************
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       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:        2  0  1! 0  0    1  0  0  1  0    1  0  3  0  1    1  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     300    9    37    16    9    42    44 1968   390    85 2810    40
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:  300    9    37    16    9    42    44 1968   390    85 2810    40
Added Vol:      5    0     0     0    0     0     0    5     4     0    7     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  305    9    37    16    9    42    44 1973   394    85 2817    40
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:   305    9    37    16    9    42    44 1973   394    85 2817    40
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  305    9    37    16    9    42    44 1973   394    85 2817    40
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:  305    9    37    16    9    42    44 1973   394    85 2817    40
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       2.61 0.08  0.31  1.00 0.18  0.82  1.00 3.00  1.00  1.00 4.00  1.00
Final Sat.:  4171  123   506  1600  282  1318  1600 4800  1600  1600 6400  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.07 0.07  0.07  0.01 0.03  0.03  0.03 0.41  0.25  0.05 0.44  0.03
Crit Moves:       ****              ****       ****                     ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #112 JAMBOREE RD/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.680
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        71                Level Of Service:                  B
********************************************************************************
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        Ignore             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:        1  0  1  1  0    1  0  2  0  1    3  0  3  1  0    2  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      34  244    84   200  431  1181   743 1277    19   197 1896   145
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:   34  244    84   200  431  1181   743 1277    19   197 1896   145
Added Vol:      0    0     0     0    0     2     2    4     0     0    5     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   34  244    84   200  431  1183   745 1281    19   197 1901   145
User Adj:    1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Volume:    34  244    84   200  431     0   745 1281    19   197 1901     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   34  244    84   200  431     0   745 1281    19   197 1901     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  0.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
FinalVolume:   34  244    84   200  431     0   745 1281    19   197 1901     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.49  0.51  1.00 2.00  1.00  3.00 3.94  0.06  2.00 4.00  1.00
Final Sat.:  1600 2380   820  1600 3200  1600  4800 6306    94  3200 6400  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.10  0.10  0.13 0.13  0.00  0.16 0.20  0.20  0.06 0.30  0.00
Crit Moves:       ****        ****             ****                     ****
********************************************************************************
```

TPO - Forecast Year 2013 Without Project Conditions

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                     TPO - 2013 WITHOUT PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                            Turning Movement Report
                                     NONE

Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume

#101 IRVINE AVE/DOVER DR
Base     77  746    18   197  657    33    54  139    59    20  110   265   2375
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    77  746    18   197  657    33    54  139    59    20  110   265   2375

#102 IRVINE AVE/17TH ST
Base    323  547    27   220  448   143   208  495   205    28  322    60   3026
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   323  547    27   220  448   143   208  495   205    28  322    60   3026

#103 DOVER DR/WESTCLIFF DR
Base    355  453     0     0  388    58    85    0   585     0    0     0   1924
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   355  453     0     0  388    58    85    0   585     0    0     0   1924

#104 DOVER DR/16TH ST
Base    123  677    31    41 1030    57    45   20   177    64   16    58   2339
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   123  677    31    41 1030    57    45   20   177    64   16    58   2339

#105 DOVER DR/CLIFF DR
Base    120  717     0     0 1016   249   112    0   159     0    0     0   2373
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   120  717     0     0 1016   249   112    0   159     0    0     0   2373

#106 NEWPORT BLVD/COAST HWY
Base      0    0     0   424    0   335     0 2197   200     0  891   365   4412
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total     0    0     0   424    0   335     0 2197   200     0  891   365   4412

#107 RIVERSIDE AVE/COAST HWY
Base      0    0     1    80    4   316   325 2095     4    18 1263    70   4176
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total     0    0     1    80    4   316   325 2095     4    18 1263    70   4176

#108 TUSTIN AVE/COAST HWY
Base      0    0     0    34    1    15    44 2202     1     1 1363    36   3697
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total     0    0     0    34    1    15    44 2202     1     1 1363    36   3697

#109 BALBOA BAY DRIVEWAY/COAST HWY
Base     27    0    27     1    3     1     5 2072    40    62 1547    11   3796
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    27    0    27     1    3     1     5 2072    40    62 1547    11   3796
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                     TPO - 2013 WITHOUT PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume


#110 DOVER DR - BAY SHORE DR/COAST HWY
Base     17   63    30   893   53   117   126 2109    26    44 1344   497   5319
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    17   63    30   893   53   117   126 2109    26    44 1344   497   5319

#111 BAYSIDE DR/COAST HWY
Base    326    7    39    62    8    55    83 2385   361    58 1600    16   5000
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   326    7    39    62    8    55    83 2385   361    58 1600    16   5000

#112 JAMBOREE RD/COAST HWY
Base     26  365   105   155  237   751   937 1692    22   104 1030    80   5504
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    26  365   105   155  237   751   937 1692    22   104 1030    80   5504
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                     TPO - 2013 WITHOUT PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #103 DOVER DR/WESTCLIFF DR
********************************************************************************
Cycle (sec):        100               Critical Vol./Cap.(X):        0.380
Loss Time (sec):      0               Average Delay (sec/veh):     xxxxxx
Optimal Cycle:       37               Level Of Service:                 A
********************************************************************************
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          Ignore           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:         2  0  2  0  0   0  0  1  0  1   2  0  0  0  1   0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      355  453    0     0  388   58    85    0  585     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:   355  453    0     0  388   58    85    0  585     0    0    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:   355  453    0     0  388   58    85    0  585     0    0    0
User Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
PHF Volume:    355  453    0     0  388   58    85    0    0     0    0    0
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   355  453    0     0  388   58    85    0    0     0    0    0
PCE Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
FinalVolume:   355  453    0     0  388   58    85    0    0     0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1600 1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600
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:        2.00 2.00 0.00  0.00 1.00 1.00  2.00 0.00 1.00  0.00 0.00 0.00
Final Sat.:   3200 3200    0     0 1600 1600  3200    0 1600     0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.11 0.14 0.00  0.00 0.24 0.04  0.03 0.00 0.00  0.00 0.00 0.00
Crit Moves:   ****                 ****       ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                     TPO - 2013 WITHOUT PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #104 DOVER DR/16TH ST
********************************************************************************
Cycle (sec):        100               Critical Vol./Cap.(X):        0.608
Loss Time (sec):      0               Average Delay (sec/veh):     xxxxxx
Optimal Cycle:       47               Level Of Service:                 B
********************************************************************************
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  1  1  0   1  0  1  1  0   0  0  1! 0  0   1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      123  677   31    41 1030   57    45   20  177    64   16   58
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:   123  677   31    41 1030   57    45   20  177    64   16   58
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:   123  677   31    41 1030   57    45   20  177    64   16   58
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:    123  677   31    41 1030   57    45   20  177    64   16   58
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   123  677   31    41 1030   57    45   20  177    64   16   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:   123  677   31    41 1030   57    45   20  177    64   16   58
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1600 1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600
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 1.91 0.09  1.00 1.90 0.10  0.19 0.08 0.73  1.00 1.00 1.00
Final Sat.:   1600 3060  140  1600 3032  168   298  132 1170  1600 1600 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.08 0.22 0.22  0.03 0.34 0.34  0.03 0.15 0.15  0.04 0.01 0.04
Crit Moves:   ****                 ****            ****       ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                     TPO - 2013 WITHOUT PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #105 DOVER DR/CLIFF DR
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.570
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        53                Level Of Service:                  A
********************************************************************************
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  0    0  0  1  1  0    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     120  717     0     0 1016   249   112    0   159     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:  120  717     0     0 1016   249   112    0   159     0    0     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:  120  717     0     0 1016   249   112    0   159     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:   120  717     0     0 1016   249   112    0   159     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  120  717     0     0 1016   249   112    0   159     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:  120  717     0     0 1016   249   112    0   159     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 2.00  0.00  0.00 1.61  0.39  1.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:  1600 3200     0     0 2570   630  1600    0  1600     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.22  0.00  0.00 0.40  0.40  0.07 0.00  0.10  0.00 0.00  0.00
Crit Moves:  ****                  ****                   ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                     TPO - 2013 WITHOUT PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #109 BALBOA BAY DRIVEWAY/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.721
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        67                Level Of Service:                  C
********************************************************************************
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        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  1! 0  0    0  0  1! 0  0    1  0  2  0  1    1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      27    0    27     1    3     1     5 2072    40    62 1547    11
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:   27    0    27     1    3     1     5 2072    40    62 1547    11
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:   27    0    27     1    3     1     5 2072    40    62 1547    11
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:    27    0    27     1    3     1     5 2072    40    62 1547    11
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   27    0    27     1    3     1     5 2072    40    62 1547    11
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:   27    0    27     1    3     1     5 2072    40    62 1547    11
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.50 0.00  0.50  0.20 0.60  0.20  1.00 2.00  1.00  1.00 1.99  0.01
Final Sat.:   800    0   800   320  960   320  1600 3200  1600  1600 3177    23
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.00  0.03  0.00 0.00  0.00  0.00 0.65  0.03  0.04 0.49  0.49
Crit Moves:             ****  ****                  ****        ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
                    TPO - 2013 WITHOUT PROJECT CONDITIONS
                                AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #110 DOVER DR - BAY SHORE DR/COAST HWY
********************************************************************************
Cycle (sec):        100                Critical Vol./Cap.(X):         0.687
Loss Time (sec):      0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:       73                Level Of Service:                  B
********************************************************************************
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       Protected        Protected
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:       1  0  1  1  0    3  0  1  0  1    2  0  2  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      17   63   30   893   53  117   126 2109   26    44 1344  497
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:   17   63   30   893   53  117   126 2109   26    44 1344  497
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:   17   63   30   893   53  117   126 2109   26    44 1344  497
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:    17   63   30   893   53  117   126 2109   26    44 1344    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   17   63   30   893   53  117   126 2109   26    44 1344    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:   17   63   30   893   53  117   126 2109   26    44 1344    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600
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 1.35 0.65  3.00 1.00 1.00  2.00 2.96 0.04  1.00 3.00 1.00
Final Sat.:  1600 2168 1032  4800 1600 1600  3200 4742   58  1600 4800 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.03 0.03  0.19 0.03 0.07  0.04 0.44 0.44  0.03 0.28 0.00
Crit Moves:            ****  ****                  ****      ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
                    TPO - 2013 WITHOUT PROJECT CONDITIONS
                                AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #111 BAYSIDE DR/COAST HWY
********************************************************************************
Cycle (sec):        100                Critical Vol./Cap.(X):         0.650
Loss Time (sec):      0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:       65                Level Of Service:                  B
********************************************************************************
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       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:       2  0  1! 0  0    1  0  0  1  0    1  0  3  0  1    1  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     326    7   39    62    8   55    83 2385  361    58 1600   16
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:  326    7   39    62    8   55    83 2385  361    58 1600   16
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:  326    7   39    62    8   55    83 2385  361    58 1600   16
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:   326    7   39    62    8   55    83 2385  361    58 1600   16
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  326    7   39    62    8   55    83 2385  361    58 1600   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:  326    7   39    62    8   55    83 2385  361    58 1600   16
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600
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:       2.63 0.06 0.31  1.00 0.13 0.87  1.00 3.00 1.00  1.00 4.00 1.00
Final Sat.:  4206   90  503  1600  203 1397  1600 4800 1600  1600 6400 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.08 0.08  0.04 0.04 0.04  0.05 0.50 0.23  0.04 0.25 0.01
Crit Moves:       ****             ****             ****      ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
                    TPO - 2013 WITHOUT PROJECT CONDITIONS
                                PM PEAK HOUR
--------------------------------------------------------------------------------
                           Turning Movement Report
                                    NONE

Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume

#101 IRVINE AVE/DOVER DR
Base     94  766     3   221 1256    81    65  133    70    39  155   264   3147
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    94  766     3   221 1256    81    65  133    70    39  155   264   3147

#102 IRVINE AVE/17TH ST
Base    312  448    49   147  537   350   326  610   240   101  699    68   3887
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   312  448    49   147  537   350   326  610   240   101  699    68   3887

#103 DOVER DR/WESTCLIFF DR
Base    604  588     0     0  324    65   119    0   567     0    0     0   2267
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   604  588     0     0  324    65   119    0   567     0    0     0   2267

#104 DOVER DR/16TH ST
Base    127 1072    42    69  925    21    22   25   125    22   12    56   2518
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   127 1072    42    69  925    21    22   25   125    22   12    56   2518

#105 DOVER DR/CLIFF DR
Base    128 1242     0     0 1079    63    50    0   120     0    0     0   2682
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   128 1242     0     0 1079    63    50    0   120     0    0     0   2682

#106 NEWPORT BLVD/COAST HWY
Base      0    0     0   648    0   428     0 1399   172     0 1946   518   5111
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total     0    0     0   648    0   428     0 1399   172     0 1946   518   5111

#107 RIVERSIDE AVE/COAST HWY
Base     10   11     2   102    2   420   254 1560     5    11 2391    76   4844
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    10   11     2   102    2   420   254 1560     5    11 2391    76   4844

#108 TUSTIN AVE/COAST HWY
Base      0    1     2    57    0    28    98 1563    21     0 2470    54   4294
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total     0    1     2    57    0    28    98 1563    21     0 2470    54   4294

#109 BALBOA BAY DRIVEWAY/COAST HWY
Base     33    0    37     9    0    12     4 1940    34    44 2280    13   4406
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    33    0    37     9    0    12     4 1940    34    44 2280    13   4406
```

```
--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
                    TPO - 2013 WITHOUT PROJECT CONDITIONS
                                PM PEAK HOUR
--------------------------------------------------------------------------------
Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume


#110 DOVER DR - BAY SHORE DR/COAST HWY
Base     36   44    43   968   63   126   157 1439    26    52 2381  1088   6423
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    36   44    43   968   63   126   157 1439    26    52 2381  1088   6423

#111 BAYSIDE DR/COAST HWY
Base    309    9    38    87    9    72    71 2108   402    88 3017    41   6251
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   309    9    38    87    9    72    71 2108   402    88 3017    41   6251

#112 JAMBOREE RD/COAST HWY
Base     36  253    90   214  447  1292   859 1375    20   208 2070   160   7024
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    36  253    90   214  447  1292   859 1375    20   208 2070   160   7024
```

```
--------------------------------------------------------------------------------
                        MARINERS POINTE - 10-107807
                   TPO - 2013 WITHOUT PROJECT CONDITIONS
                               PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #103 DOVER DR/WESTCLIFF DR
********************************************************************************
Cycle (sec):          100               Critical Vol./Cap.(X):         0.428
Loss Time (sec):        0               Average Delay (sec/veh):      xxxxxx
Optimal Cycle:         40               Level Of Service:                  A
********************************************************************************
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          Ignore          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:       2  0  2  0  0    0  0  1  0  1    2  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     604  588     0     0  324    65   119     0   567     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:  604  588     0     0  324    65   119     0   567     0     0     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:  604  588     0     0  324    65   119     0   567     0     0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Volume:   604  588     0     0  324    65   119     0     0     0     0     0
Reduct Vol:     0    0     0     0    0     0     0     0     0     0     0     0
Reduced Vol:  604  588     0     0  324    65   119     0     0     0     0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
FinalVolume:  604  588     0     0  324    65   119     0     0     0     0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       2.00 2.00  0.00  0.00 1.00  1.00  2.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:  3200 3200     0     0 1600  1600  3200     0  1600     0     0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.19 0.18  0.00  0.00 0.20  0.04  0.04 0.00  0.00  0.00 0.00  0.00
Crit Moves:  ****                  ****        ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                        MARINERS POINTE - 10-107807
                   TPO - 2013 WITHOUT PROJECT CONDITIONS
                               PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #104 DOVER DR/16TH ST
********************************************************************************
Cycle (sec):          100               Critical Vol./Cap.(X):         0.512
Loss Time (sec):        0               Average Delay (sec/veh):      xxxxxx
Optimal Cycle:         38               Level Of Service:                  A
********************************************************************************
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  1  1  0    1  0  1  1  0    0  0  1! 0  0    1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     127 1072    42    69  925    21    22    25   125    22    12    56
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:  127 1072    42    69  925    21    22    25   125    22    12    56
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:  127 1072    42    69  925    21    22    25   125    22    12    56
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:   127 1072    42    69  925    21    22    25   125    22    12    56
Reduct Vol:     0    0     0     0    0     0     0     0     0     0     0     0
Reduced Vol:  127 1072    42    69  925    21    22    25   125    22    12    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:  127 1072    42    69  925    21    22    25   125    22    12    56
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.92  0.08  1.00 1.96  0.04  0.13 0.14  0.73  1.00 1.00  1.00
Final Sat.:  1600 3079   121  1600 3129    71   205  233  1163  1600 1600  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.35  0.35  0.04 0.30  0.30  0.01 0.11  0.11  0.01 0.01  0.04
Crit Moves:       ****        ****                  ****        ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                     TPO - 2013 WITHOUT PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #105 DOVER DR/CLIFF DR
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.512
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        47                Level Of Service:                  A
********************************************************************************
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  0    0  0  1  1  0    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     128 1242     0     0 1079    63    50    0   120     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:  128 1242     0     0 1079    63    50    0   120     0    0     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:  128 1242     0     0 1079    63    50    0   120     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:   128 1242     0     0 1079    63    50    0   120     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  128 1242     0     0 1079    63    50    0   120     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:  128 1242     0     0 1079    63    50    0   120     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 2.00  0.00  0.00 1.89  0.11  1.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:  1600 3200     0     0 3023   177  1600    0  1600     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.39  0.00  0.00 0.36  0.36  0.03 0.00  0.08  0.00 0.00  0.00
Crit Moves:  ****                  ****                   ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                     TPO - 2013 WITHOUT PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #109 BALBOA BAY DRIVEWAY/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.768
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        80                Level Of Service:                  C
********************************************************************************
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       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  1! 0  0    0  0  1! 0  0    1  0  2  0  1    1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      33    0    37     9    0    12     4 1940    34    44 2280    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:   33    0    37     9    0    12     4 1940    34    44 2280    13
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:   33    0    37     9    0    12     4 1940    34    44 2280    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:     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:    33    0    37     9    0    12     4 1940    34    44 2280    13
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   33    0    37     9    0    12     4 1940    34    44 2280    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:   33    0    37     9    0    12     4 1940    34    44 2280    13
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.47 0.00  0.53  0.43 0.00  0.57  1.00 2.00  1.00  1.00 1.99  0.01
Final Sat.:   754    0   846   686    0   914  1600 3200  1600  1600 3182    18
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.00  0.04  0.01 0.00  0.01  0.00 0.61  0.02  0.03 0.72  0.72
Crit Moves:             ****  ****             ****                  ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                     TPO - 2013 WITHOUT PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #110 DOVER DR - BAY SHORE DR/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.774
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:       101                Level Of Service:                  C
********************************************************************************
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       Protected        Protected
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:        1  0  1  1  0    3  0  1  0  1    2  0  2  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      36   44    43   968   63   126   157 1439    26    52 2381  1088
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:   36   44    43   968   63   126   157 1439    26    52 2381  1088
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:   36   44    43   968   63   126   157 1439    26    52 2381  1088
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:    36   44    43   968   63   126   157 1439    26    52 2381     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   36   44    43   968   63   126   157 1439    26    52 2381     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:   36   44    43   968   63   126   157 1439    26    52 2381     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.01  0.99  3.00 1.00  1.00  2.00 2.95  0.05  1.00 3.00  1.00
Final Sat.:  1600 1618  1582  4800 1600  1600  3200 4715    85  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.03  0.03  0.20 0.04  0.08  0.05 0.31  0.31  0.03 0.50  0.00
Crit Moves:       ****        ****             ****                   ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                     TPO - 2013 WITHOUT PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #111 BAYSIDE DR/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.644
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        64                Level Of Service:                  B
********************************************************************************
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       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:        2  0  1! 0  0    1  0  0  1  0    1  0  3  0  1    1  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     309    9    38    87    9    72    71 2108   402    88 3017    41
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:  309    9    38    87    9    72    71 2108   402    88 3017    41
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:  309    9    38    87    9    72    71 2108   402    88 3017    41
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:   309    9    38    87    9    72    71 2108   402    88 3017    41
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  309    9    38    87    9    72    71 2108   402    88 3017    41
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:  309    9    38    87    9    72    71 2108   402    88 3017    41
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       2.60 0.08  0.32  1.00 0.11  0.89  1.00 3.00  1.00  1.00 4.00  1.00
Final Sat.:  4166  121   512  1600  178  1422  1600 4800  1600  1600 6400  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.07 0.07  0.07  0.05 0.05  0.05  0.04 0.44  0.25  0.06 0.47  0.03
Crit Moves:       ****        ****             ****                   ****
********************************************************************************
```

TPO - Forecast Year 2013 With Project Conditions

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      TPO - 2013 WITH PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                            Turning Movement Report
                                    TPO-AM

Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume

#101 IRVINE AVE/DOVER DR
Base     77  746    18   197  657    33    54  139    59    20  110   265   2375
Added     0    0     0     1    1     0     0    0     0     0    0     0      2
Total    77  746    18   198  658    33    54  139    59    20  110   265   2377

#102 IRVINE AVE/17TH ST
Base    323  547    27   220  448   143   208  495   205    28  322    60   3026
Added     0    0     0     1    0     0     0    1     0     0    0     0      2
Total   323  547    27   221  448   143   208  496   205    28  322    60   3028

#103 DOVER DR/WESTCLIFF DR
Base    355  453     0     0  388    58    85    0   585     0    0     0   1924
Added     0    0     0     0    1     0     0    0     2     0    0     0      3
Total   355  453     0     0  389    58    85    0   587     0    0     0   1927

#104 DOVER DR/16TH ST
Base    123  677    31    41 1030    57    45   20   177    64   16    58   2339
Added     0    1     0     0    3     0     0    0     1     0    0     0      5
Total   123  678    31    41 1033    57    45   20   178    64   16    58   2344

#105 DOVER DR/CLIFF DR
Base    120  717     0     0 1016   249   112    0   159     0    0     0   2373
Added     0    1     0     0    4     0     0    0     1     0    0     0      6
Total   120  718     0     0 1020   249   112    0   160     0    0     0   2379

#106 NEWPORT BLVD/COAST HWY
Base      0    0     0   424    0   335     0 2197   200     0  891   365   4412
Added     0    0     0     1    0     0     0    1     0     0    0     0      2
Total     0    0     0   425    0   335     0 2198   200     0  891   365   4414

#107 RIVERSIDE AVE/COAST HWY
Base      0    0     1    80    4   316   325 2095     4    18 1263    70   4176
Added     0    0     0     1    0     0     0    4     0     0    1     0      6
Total     0    0     1    81    4   316   325 2099     4    18 1264    70   4182

#108 TUSTIN AVE/COAST HWY
Base      0    0     0    34    1    15    44 2202     1     1 1363    36   3697
Added     0    0     0     0    0     0     0    5     0     0    1     0      6
Total     0    0     0    34    1    15    44 2207     1     1 1364    36   3703

#109 BALBOA BAY DRIVEWAY/COAST HWY
Base     27    0    27     1    3     1     5 2072    40    62 1547    11   3796
Added     0    0     0     0    0     0     0    5     0     2    1     0      8
Total    27    0    27     1    3     1     5 2077    40    64 1548    11   3804
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      TPO - 2013 WITH PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume


#110 DOVER DR - BAY SHORE DR/COAST HWY
Base     17   63    30   893   53   117   126 2109    26    44 1344   497   5319
Added     0    0     0     0    0     5     6    1     0     0    3     0     15
Total    17   63    30   893   53   122   132 2110    26    44 1347   497   5334

#111 BAYSIDE DR/COAST HWY
Base    326    7    39    62    8    55    83 2385   361    58 1600    16   5000
Added     1    0     0     0    0     0     0    0     0     0    2     0      3
Total   327    7    39    62    8    55    83 2385   361    58 1602    16   5003

#112 JAMBOREE RD/COAST HWY
Base     26  365   105   155  237   751   937 1692    22   104 1030    80   5504
Added     0    0     0     0    0     1     0    0     0     0    1     0      2
Total    26  365   105   155  237   752   937 1692    22   104 1031    80   5506
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      TPO - 2013 WITH PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #103 DOVER DR/WESTCLIFF DR
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.381
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        37                Level Of Service:                  A
********************************************************************************
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          Ignore           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:        2  0  2  0  0    0  0  1  0  1    2  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     355  453     0     0  388    58    85    0   585     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:  355  453     0     0  388    58    85    0   585     0    0     0
Added Vol:      0    0     0     0    1     0     0    0     2     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  355  453     0     0  389    58    85    0   587     0    0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Volume:   355  453     0     0  389    58    85    0     0     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  355  453     0     0  389    58    85    0     0     0    0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
FinalVolume:  355  453     0     0  389    58    85    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       2.00 2.00  0.00  0.00 1.00  1.00  2.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:  3200 3200     0     0 1600  1600  3200    0  1600     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.11 0.14  0.00  0.00 0.24  0.04  0.03 0.00  0.00  0.00 0.00  0.00
Crit Moves:  ****                  ****        ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      TPO - 2013 WITH PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #104 DOVER DR/16TH ST
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.609
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        48                Level Of Service:                  B
********************************************************************************
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  1  1  0    1  0  1  1  0    0  0  1! 0  0    1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     123  677    31    41 1030    57    45   20   177    64   16    58
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:  123  677    31    41 1030    57    45   20   177    64   16    58
Added Vol:      0    1     0     0    3     0     0    0     1     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  123  678    31    41 1033    57    45   20   178    64   16    58
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:   123  678    31    41 1033    57    45   20   178    64   16    58
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  123  678    31    41 1033    57    45   20   178    64   16    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:  123  678    31    41 1033    57    45   20   178    64   16    58
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.91  0.09  1.00 1.90  0.10  0.19 0.08  0.73  1.00 1.00  1.00
Final Sat.:  1600 3060   140  1600 3033   167   296  132  1172  1600 1600  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.22  0.22  0.03 0.34  0.34  0.03 0.15  0.15  0.04 0.01  0.04
Crit Moves:  ****                  ****             ****        ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      TPO - 2013 WITH PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #105 DOVER DR/CLIFF DR
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.572
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        53                Level Of Service:                  A
********************************************************************************
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  0    0  0  1  1  0    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     120  717     0     0 1016   249   112    0   159     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:  120  717     0     0 1016   249   112    0   159     0    0     0
Added Vol:      0    1     0     0    4     0     0    0     1     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  120  718     0     0 1020   249   112    0   160     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:   120  718     0     0 1020   249   112    0   160     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  120  718     0     0 1020   249   112    0   160     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:  120  718     0     0 1020   249   112    0   160     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 2.00  0.00  0.00 1.61  0.39  1.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:  1600 3200     0     0 2572   628  1600    0  1600     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.22  0.00  0.00 0.40  0.40  0.07 0.00  0.10  0.00 0.00  0.00
Crit Moves:  ****                  ****                   ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      TPO - 2013 WITH PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #109 BALBOA BAY DRIVEWAY/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.723
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        67                Level Of Service:                  C
********************************************************************************
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       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  1! 0  0    0  0  1! 0  0    1  0  2  0  1    1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      27    0    27     1    3     1     5 2072    40    62 1547    11
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:   27    0    27     1    3     1     5 2072    40    62 1547    11
Added Vol:      0    0     0     0    0     0     0    5     0     2    1     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   27    0    27     1    3     1     5 2077    40    64 1548    11
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:    27    0    27     1    3     1     5 2077    40    64 1548    11
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   27    0    27     1    3     1     5 2077    40    64 1548    11
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:   27    0    27     1    3     1     5 2077    40    64 1548    11
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.50 0.00  0.50  0.20 0.60  0.20  1.00 2.00  1.00  1.00 1.99  0.01
Final Sat.:   800    0   800   320  960   320  1600 3200  1600  1600 3177    23
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.00  0.03  0.00 0.00  0.00  0.00 0.65  0.03  0.04 0.49  0.49
Crit Moves:             ****  ****                  ****        ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      TPO - 2013 WITH PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #110 DOVER DR - BAY SHORE DR/COAST HWY
********************************************************************************
Cycle (sec):         100               Critical Vol./Cap.(X):         0.688
Loss Time (sec):       0               Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        73               Level Of Service:                  B
********************************************************************************
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       Protected        Protected
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:        1  0  1  1  0    3  0  1  0  1    2  0  2  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      17   63    30   893   53   117   126 2109    26    44 1344   497
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:   17   63    30   893   53   117   126 2109    26    44 1344   497
Added Vol:      0    0     0     0    0     5     6    1     0     0    3     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   17   63    30   893   53   122   132 2110    26    44 1347   497
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:    17   63    30   893   53   122   132 2110    26    44 1347     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   17   63    30   893   53   122   132 2110    26    44 1347     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:   17   63    30   893   53   122   132 2110    26    44 1347     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.35  0.65  3.00 1.00  1.00  2.00 2.96  0.04  1.00 3.00  1.00
Final Sat.:  1600 2168  1032  4800 1600  1600  3200 4742    58  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.03  0.03  0.19 0.03  0.08  0.04 0.45  0.44  0.03 0.28  0.00
Crit Moves:             ****  ****                  ****        ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      TPO - 2013 WITH PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #111 BAYSIDE DR/COAST HWY
********************************************************************************
Cycle (sec):         100               Critical Vol./Cap.(X):         0.650
Loss Time (sec):       0               Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        65               Level Of Service:                  B
********************************************************************************
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       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:        2  0  1! 0  0    1  0  0  1  0    1  0  3  0  1    1  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     326    7    39    62    8    55    83 2385   361    58 1600    16
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:  326    7    39    62    8    55    83 2385   361    58 1600    16
Added Vol:      1    0     0     0    0     0     0    0     0     0    2     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  327    7    39    62    8    55    83 2385   361    58 1602    16
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:   327    7    39    62    8    55    83 2385   361    58 1602    16
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  327    7    39    62    8    55    83 2385   361    58 1602    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:  327    7    39    62    8    55    83 2385   361    58 1602    16
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       2.63 0.06  0.31  1.00 0.13  0.87  1.00 3.00  1.00  1.00 4.00  1.00
Final Sat.:  4208   90   502  1600  203  1397  1600 4800  1600  1600 6400  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.08  0.08  0.04 0.04  0.04  0.05 0.50  0.23  0.04 0.25  0.01
Crit Moves:  ****                  ****             ****        ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      TPO - 2013 WITH PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                            Turning Movement Report
                                    TPO-PM

Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume

#101 IRVINE AVE/DOVER DR
Base     94  766     3   221 1256    81    65  133    70    39  155   264   3147
Added     0    1     0     2    2     0     0    0     0     0    0     1      6
Total    94  767     3   223 1258    81    65  133    70    39  155   265   3153

#102 IRVINE AVE/17TH ST
Base    312  448    49   147  537   350   326  610   240   101  699    68   3887
Added     0    0     0     2    0     0     0    4     0     0    3     1     10
Total   312  448    49   149  537   350   326  614   240   101  702    69   3897

#103 DOVER DR/WESTCLIFF DR
Base    604  588     0     0  324    65   119    0   567     0    0     0   2267
Added     4    3     0     0    4     0     0    0     6     0    0     0     17
Total   608  591     0     0  328    65   119    0   573     0    0     0   2284

#104 DOVER DR/16TH ST
Base    127 1072    42    69  925    21    22   25   125    22   12    56   2518
Added     1    7     0     0   11     0     0    0     2     0    0     0     21
Total   128 1079    42    69  936    21    22   25   127    22   12    56   2539

#105 DOVER DR/CLIFF DR
Base    128 1242     0     0 1079    63    50    0   120     0    0     0   2682
Added     3    8     0     0   13     0     0    0     4     0    0     0     28
Total   131 1250     0     0 1092    63    50    0   124     0    0     0   2710

#106 NEWPORT BLVD/COAST HWY
Base      0    0     0   648    0   428     0 1399   172     0 1946   518   5111
Added     0    0     0     4    0     0     0    4     0     0    3     0     11
Total     0    0     0   652    0   428     0 1403   172     0 1949   518   5122

#107 RIVERSIDE AVE/COAST HWY
Base     10   11     2   102    2   420   254 1560     5    11 2391    76   4844
Added     0    0     0     2    0     0     0   13     0     0    8     1     24
Total    10   11     2   104    2   420   254 1573     5    11 2399    77   4868

#108 TUSTIN AVE/COAST HWY
Base      0    1     2    57    0    28    98 1563    21     0 2470    54   4294
Added     0    0     0     0    0     0     0   15     0     0   10     0     25
Total     0    1     2    57    0    28    98 1578    21     0 2480    54   4319

#109 BALBOA BAY DRIVEWAY/COAST HWY
Base     33    0    37     9    0    12     4 1940    34    44 2280    13   4406
Added     0    0     0     0    0     0     0   15     0    18   10     0     43
Total    33    0    37     9    0    12     4 1955    34    62 2290    13   4449
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      TPO - 2013 WITH PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume


#110 DOVER DR - BAY SHORE DR/COAST HWY
Base     36   44    43   968   63   126   157 1439    26    52 2381  1088   6423
Added     0    0     0     0    0    17    26    7     0     0   11     0     61
Total    36   44    43   968   63   143   183 1446    26    52 2392  1088   6484

#111 BAYSIDE DR/COAST HWY
Base    309    9    38    87    9    72    71 2108   402    88 3017    41   6251
Added     4    0     0     0    0     0     0    4     3     0    6     0     17
Total   313    9    38    87    9    72    71 2112   405    88 3023    41   6268

#112 JAMBOREE RD/COAST HWY
Base     36  253    90   214  447  1292   859 1375    20   208 2070   160   7024
Added     0    0     0     0    0     2     1    3     0     0    4     0     10
Total    36  253    90   214  447  1294   860 1378    20   208 2074   160   7034
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                       TPO - 2013 WITH PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #103 DOVER DR/WESTCLIFF DR
********************************************************************************
Cycle (sec):        100                Critical Vol./Cap.(X):        0.432
Loss Time (sec):      0                Average Delay (sec/veh):     xxxxxx
Optimal Cycle:       40                Level Of Service:                 A
********************************************************************************
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          Ignore           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:        2  0  2  0  0   0  0  1  0  1   2  0  0  0  1   0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     604  588    0     0  324   65   119    0  567     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:  604  588    0     0  324   65   119    0  567     0    0    0
Added Vol:      4    3    0     0    4    0     0    0    6     0    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:  608  591    0     0  328   65   119    0  573     0    0    0
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
PHF Volume:   608  591    0     0  328   65   119    0    0     0    0    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  608  591    0     0  328   65   119    0    0     0    0    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
FinalVolume:  608  591    0     0  328   65   119    0    0     0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600
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:       2.00 2.00 0.00  0.00 1.00 1.00  2.00 0.00 1.00  0.00 0.00 0.00
Final Sat.:  3200 3200    0     0 1600 1600  3200    0 1600     0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.19 0.18 0.00  0.00 0.21 0.04  0.04 0.00 0.00  0.00 0.00 0.00
Crit Moves:  ****                 ****       ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                       TPO - 2013 WITH PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #104 DOVER DR/16TH ST
********************************************************************************
Cycle (sec):        100                Critical Vol./Cap.(X):        0.516
Loss Time (sec):      0                Average Delay (sec/veh):     xxxxxx
Optimal Cycle:       38                Level Of Service:                 A
********************************************************************************
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  1  1  0   1  0  1  1  0   0  0  1! 0  0   1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     127 1072   42    69  925   21    22   25  125    22   12   56
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:  127 1072   42    69  925   21    22   25  125    22   12   56
Added Vol:      1    7    0     0   11    0     0    0    2     0    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:  128 1079   42    69  936   21    22   25  127    22   12   56
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:   128 1079   42    69  936   21    22   25  127    22   12   56
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  128 1079   42    69  936   21    22   25  127    22   12   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:  128 1079   42    69  936   21    22   25  127    22   12   56
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600
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 1.93 0.07  1.00 1.96 0.04  0.13 0.14 0.73  1.00 1.00 1.00
Final Sat.:  1600 3080  120  1600 3130   70   202  230 1168  1600 1600 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.35 0.35  0.04 0.30 0.30  0.01 0.11 0.11  0.01 0.01 0.04
Crit Moves:       ****       ****                  ****      ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      TPO - 2013 WITH PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #105 DOVER DR/CLIFF DR
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.520
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        48                Level Of Service:                  A
********************************************************************************
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  0    0  0  1  1  0    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     128 1242     0     0 1079    63    50    0   120     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:  128 1242     0     0 1079    63    50    0   120     0    0     0
Added Vol:      3    8     0     0   13     0     0    0     4     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  131 1250     0     0 1092    63    50    0   124     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:   131 1250     0     0 1092    63    50    0   124     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  131 1250     0     0 1092    63    50    0   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:  131 1250     0     0 1092    63    50    0   124     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 2.00  0.00  0.00 1.89  0.11  1.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:  1600 3200     0     0 3025   175  1600    0  1600     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.39  0.00  0.00 0.36  0.36  0.03 0.00  0.08  0.00 0.00  0.00
Crit Moves:  ****                  ****                   ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      TPO - 2013 WITH PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #109 BALBOA BAY DRIVEWAY/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.772
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        81                Level Of Service:                  C
********************************************************************************
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        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  1! 0  0    0  0  1! 0  0    1  0  2  0  1    1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      33    0    37     9    0    12     4 1940    34    44 2280    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:   33    0    37     9    0    12     4 1940    34    44 2280    13
Added Vol:      0    0     0     0    0     0     0   15     0    18   10     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   33    0    37     9    0    12     4 1955    34    62 2290    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:     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:    33    0    37     9    0    12     4 1955    34    62 2290    13
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   33    0    37     9    0    12     4 1955    34    62 2290    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:   33    0    37     9    0    12     4 1955    34    62 2290    13
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.47 0.00  0.53  0.43 0.00  0.57  1.00 2.00  1.00  1.00 1.99  0.01
Final Sat.:   754    0   846   686    0   914  1600 3200  1600  1600 3182    18
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.00  0.04  0.01 0.00  0.01  0.00 0.61  0.02  0.04 0.72  0.72
Crit Moves:             ****  ****             ****                  ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      TPO - 2013 WITH PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #110 DOVER DR - BAY SHORE DR/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.784
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:       106                Level Of Service:                  C
********************************************************************************
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       Protected        Protected
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:        1  0  1  1  0    3  0  1  0  1    2  0  2  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      36   44    43   968   63   126   157 1439    26    52 2381  1088
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:   36   44    43   968   63   126   157 1439    26    52 2381  1088
Added Vol:      0    0     0     0    0    17    26    7     0     0   11     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   36   44    43   968   63   143   183 1446    26    52 2392  1088
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:    36   44    43   968   63   143   183 1446    26    52 2392     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   36   44    43   968   63   143   183 1446    26    52 2392     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:   36   44    43   968   63   143   183 1446    26    52 2392     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.01  0.99  3.00 1.00  1.00  2.00 2.95  0.05  1.00 3.00  1.00
Final Sat.:  1600 1618  1582  4800 1600  1600  3200 4715    85  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.03  0.03  0.20 0.04  0.09  0.06 0.31  0.31  0.03 0.50  0.00
Crit Moves:       ****        ****             ****                  ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      TPO - 2013 WITH PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #111 BAYSIDE DR/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.646
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        64                Level Of Service:                  B
********************************************************************************
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       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:        2  0  1! 0  0    1  0  0  1  0    1  0  3  0  1    1  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     309    9    38    87    9    72    71 2108   402    88 3017    41
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:  309    9    38    87    9    72    71 2108   402    88 3017    41
Added Vol:      4    0     0     0    0     0     0    4     3     0    6     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  313    9    38    87    9    72    71 2112   405    88 3023    41
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:   313    9    38    87    9    72    71 2112   405    88 3023    41
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  313    9    38    87    9    72    71 2112   405    88 3023    41
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:  313    9    38    87    9    72    71 2112   405    88 3023    41
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       2.61 0.07  0.32  1.00 0.11  0.89  1.00 3.00  1.00  1.00 4.00  1.00
Final Sat.:  4173  120   507  1600  178  1422  1600 4800  1600  1600 6400  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.08  0.07  0.05 0.05  0.05  0.04 0.44  0.25  0.06 0.47  0.03
Crit Moves:  ****              ****             ****                  ****
********************************************************************************
```

Forecast Cumulative Without Project Conditions

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                  2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                            Turning Movement Report
                                     NONE

Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume

#101 IRVINE AVE/DOVER DR
Base     77  746    18   197  657    33    54  139    59    20  110   265   2375
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0     0    0     0     0   13     0     0   46     0     59
Total    77  746    18   197  657    33    54  152    59    20  156   265   2434

#102 IRVINE AVE/17TH ST
Base    323  547    27   220  448   143   208  495   205    28  322    60   3026
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0     0    0     0     0    3     0     0    9     0     12
Total   323  547    27   220  448   143   208  498   205    28  331    60   3038

#103 DOVER DR/WESTCLIFF DR
Base    355  453     0     0  388    58    85    0   585     0    0     0   1924
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    9   46     0     0   13     0     0    0     3     0    0     0     71
Total   364  499     0     0  401    58    85    0   588     0    0     0   1995

#104 DOVER DR/16TH ST
Base    123  677    31    41 1030    57    45   20   177    64   16    58   2339
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0   55     0     0   16     0     0    0     0     0    0     0     71
Total   123  732    31    41 1046    57    45   20   177    64   16    58   2410

#105 DOVER DR/CLIFF DR
Base    120  717     0     0 1016   249   112    0   159     0    0     0   2373
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0   55     0     0   16     0     0    0     0     0    0     0     71
Total   120  772     0     0 1032   249   112    0   159     0    0     0   2444

#106 NEWPORT BLVD/COAST HWY
Base      0    0     0   424    0   335     0 2197   200     0  891   365   4412
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0    15    0    40     0  167     6     0  113     5    346
Total     0    0     0   439    0   375     0 2364   206     0 1004   370   4758

#107 RIVERSIDE AVE/COAST HWY
Base      0    0     1    80    4   316   325 2095     4    18 1263    70   4176
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0     0    0     1     0   57     0     0  171     0    229
Total     0    0     1    80    4   317   325 2152     4    18 1434    70   4405
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                  2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume


#108 TUSTIN AVE/COAST HWY
Base      0    0     0    34    1    15    44 2202     1     1 1363    36   3697
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0     0    0     1     0   57     0     0  164     0    222
Total     0    0     0    34    1    16    44 2259     1     1 1527    36   3919

#109 BALBOA BAY DRIVEWAY/COAST HWY
Base     27    0    27     1    3     1     5 2072    40    62 1547    11   3796
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0     0    0     0     0   57     0     0  164     0    221
Total    27    0    27     1    3     1     5 2129    40    62 1711    11   4017

#110 DOVER DR - BAY SHORE DR/COAST HWY
Base     17   63    30   893   53   117   126 2109    26    44 1344   497   5319
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0    15    0     1     3   53     0     0  164    52    288
Total    17   63    30   908   53   118   129 2162    26    44 1508   549   5607

#111 BAYSIDE DR/COAST HWY
Base    326    7    39    62    8    55    83 2385   361    58 1600    16   5000
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    2    0     0     0    0     0     0   63     0     0  214     0    279
Total   328    7    39    62    8    55    83 2448   361    58 1814    16   5279

#112 JAMBOREE RD/COAST HWY
Base     26  365   105   155  237   751   937 1692    22   104 1030    80   5504
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    8    2     0    55    0    19     0   71     3     0  187   112    457
Total    34  367   105   210  237   770   937 1763    25   104 1217   192   5961
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                  2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #101 IRVINE AVE/DOVER DR
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.561
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        42                Level Of Service:                  A
********************************************************************************
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  1  1  0    1  0  1  1  0    1  0  0  1  0    1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      77  746    18   197  657    33    54  139    59    20  110   265
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:   77  746    18   197  657    33    54  139    59    20  110   265
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:    0    0     0     0    0     0     0   13     0     0   46     0
Initial Fut:   77  746    18   197  657    33    54  152    59    20  156   265
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:    77  746    18   197  657    33    54  152    59    20  156   265
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   77  746    18   197  657    33    54  152    59    20  156   265
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  746    18   197  657    33    54  152    59    20  156   265
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.95  0.05  1.00 1.90  0.10  1.00 0.72  0.28  1.00 1.00  1.00
Final Sat.:  1600 3125    75  1600 3047   153  1600 1153   447  1600 1600  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.05 0.24  0.24  0.12 0.22  0.22  0.03 0.13  0.13  0.01 0.10  0.17
Crit Moves:       ****        ****             ****                        ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                  2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #102 IRVINE AVE/17TH ST
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.514
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        47                Level Of Service:                  A
********************************************************************************
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:        2  0  1  1  0    2  0  1  1  0    2  0  1  1  0    2  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     323  547    27   220  448   143   208  495   205    28  322    60
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:  323  547    27   220  448   143   208  495   205    28  322    60
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:    0    0     0     0    0     0     0    3     0     0    9     0
Initial Fut:  323  547    27   220  448   143   208  498   205    28  331    60
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:   323  547    27   220  448   143   208  498   205    28  331    60
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  323  547    27   220  448   143   208  498   205    28  331    60
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:  323  547    27   220  448   143   208  498   205    28  331    60
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       2.00 1.91  0.09  2.00 1.52  0.48  2.00 1.42  0.58  2.00 1.69  0.31
Final Sat.:  3200 3049   151  3200 2426   774  3200 2267   933  3200 2709   491
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.10 0.18  0.18  0.07 0.18  0.18  0.07 0.22  0.22  0.01 0.12  0.12
Crit Moves:  ****                  ****             ****        ****
********************************************************************************
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--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
                  2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                AM PEAK HOUR
--------------------------------------------------------------------------------
                       Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #103 DOVER DR/WESTCLIFF DR
********************************************************************************
Cycle (sec):        100                Critical Vol./Cap.(X):        0.391
Loss Time (sec):      0                Average Delay (sec/veh):     xxxxxx
Optimal Cycle:       37                Level Of Service:                 A
********************************************************************************
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          Ignore          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:        2  0  2  0  0   0  0  1  0  1   2  0  0  0  1   0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     355  453     0    0  388    58   85    0   585    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:  355  453     0    0  388    58   85    0   585    0    0     0
Added Vol:      0    0     0    0    0     0    0    0     0    0    0     0
Cumulatives:    9   46     0    0   13     0    0    0     3    0    0     0
Initial Fut:  364  499     0    0  401    58   85    0   588    0    0     0
User Adj:    1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  0.00 1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  0.00 1.00 1.00  1.00
PHF Volume:   364  499     0    0  401    58   85    0     0    0    0     0
Reduct Vol:     0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:  364  499     0    0  401    58   85    0     0    0    0     0
PCE Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  0.00 1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  0.00 1.00 1.00  1.00
FinalVolume:  364  499     0    0  401    58   85    0     0    0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600  1600
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:       2.00 2.00  0.00 0.00 1.00  1.00 2.00 0.00  1.00 0.00 0.00  0.00
Final Sat.:  3200 3200     0    0 1600  1600 3200    0  1600    0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.11 0.16  0.00 0.00 0.25  0.04 0.03 0.00  0.00 0.00 0.00  0.00
Crit Moves:  ****                 ****       ****
********************************************************************************
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--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
                  2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                AM PEAK HOUR
--------------------------------------------------------------------------------
                       Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #104 DOVER DR/16TH ST
********************************************************************************
Cycle (sec):        100                Critical Vol./Cap.(X):        0.613
Loss Time (sec):      0                Average Delay (sec/veh):     xxxxxx
Optimal Cycle:       48                Level Of Service:                 B
********************************************************************************
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  1  1  0   1  0  1  1  0   0  0  1! 0  0   1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     123  677    31   41 1030    57   45   20   177   64   16    58
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:  123  677    31   41 1030    57   45   20   177   64   16    58
Added Vol:      0    0     0    0    0     0    0    0     0    0    0     0
Cumulatives:    0   55     0    0   16     0    0    0     0    0    0     0
Initial Fut:  123  732    31   41 1046    57   45   20   177   64   16    58
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:   123  732    31   41 1046    57   45   20   177   64   16    58
Reduct Vol:     0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:  123  732    31   41 1046    57   45   20   177   64   16    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:  123  732    31   41 1046    57   45   20   177   64   16    58
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600  1600
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 1.92  0.08 1.00 1.90  0.10 0.19 0.08  0.73 1.00 1.00  1.00
Final Sat.:  1600 3070   130 1600 3035   165  298  132  1170 1600 1600  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.24  0.24 0.03 0.34  0.34 0.03 0.15  0.15 0.04 0.01  0.04
Crit Moves:  ****                 ****            ****       ****
********************************************************************************
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--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
                  2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                AM PEAK HOUR
--------------------------------------------------------------------------------
                       Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #105 DOVER DR/CLIFF DR
********************************************************************************
Cycle (sec):        100              Critical Vol./Cap.(X):         0.575
Loss Time (sec):      0              Average Delay (sec/veh):      xxxxxx
Optimal Cycle:       54              Level Of Service:                  A
********************************************************************************
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  0    0  0  1  1  0    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     120  717    0    0 1016  249  112    0  159    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:  120  717    0    0 1016  249  112    0  159    0    0    0
Added Vol:      0    0    0    0    0    0    0    0    0    0    0    0
Cumulatives:    0   55    0    0   16    0    0    0    0    0    0    0
Initial Fut:  120  772    0    0 1032  249  112    0  159    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:   120  772    0    0 1032  249  112    0  159    0    0    0
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  120  772    0    0 1032  249  112    0  159    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:  120  772    0    0 1032  249  112    0  159    0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
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 2.00 0.00 0.00 1.61 0.39 1.00 0.00 1.00 0.00 0.00 0.00
Final Sat.:  1600 3200    0    0 2578  622 1600    0 1600    0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.24 0.00 0.00 0.40 0.40 0.07 0.00 0.10 0.00 0.00 0.00
Crit Moves:  ****                ****                ****
********************************************************************************
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--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
                  2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                AM PEAK HOUR
--------------------------------------------------------------------------------
                       Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #106 NEWPORT BLVD/COAST HWY
********************************************************************************
Cycle (sec):        100              Critical Vol./Cap.(X):         0.973
Loss Time (sec):      0              Average Delay (sec/veh):      xxxxxx
Optimal Cycle:      180              Level Of Service:                  E
********************************************************************************
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       Protected        Protected
Rights:           Include          Include          Ignore           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  0  0  0    2  0  0  0  1    0  0  2  0  1    0  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0    0  424    0  335    0 2197  200    0  891  365
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  424    0  335    0 2197  200    0  891  365
Added Vol:      0    0    0    0    0    0    0    0    0    0    0    0
Cumulatives:    0    0    0   15    0   40    0  167    6    0  113    5
Initial Fut:    0    0    0  439    0  375    0 2364  206    0 1004  370
User 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
PHF 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
PHF Volume:     0    0    0  439    0  375    0 2364    0    0 1004    0
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:    0    0    0  439    0  375    0 2364    0    0 1004    0
PCE 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
MLF 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
FinalVolume:    0    0    0  439    0  375    0 2364    0    0 1004    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
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:       0.00 0.00 0.00 2.00 0.00 1.00 0.00 2.00 1.00 0.00 3.00 1.00
Final Sat.:     0    0    0 3200    0 1600    0 3200 1600    0 4800 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00 0.00 0.14 0.00 0.23 0.00 0.74 0.00 0.00 0.21 0.00
Crit Moves:                           ****      ****           ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                  2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #107 RIVERSIDE AVE/COAST HWY
********************************************************************************
Cycle (sec):        100                Critical Vol./Cap.(X):         0.735
Loss Time (sec):      0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:       70                Level Of Service:                  C
********************************************************************************
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       Protected        Protected
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:        0  0  0  0  1    0  1  0  0  1    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     1    80    4   316   325 2095     4    18 1263    70
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     1    80    4   316   325 2095     4    18 1263    70
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:    0    0     0     0    0     1     0   57     0     0  171     0
Initial Fut:    0    0     1    80    4   317   325 2152     4    18 1434    70
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:     0    0     1    80    4   317   325 2152     4    18 1434    70
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     1    80    4   317   325 2152     4    18 1434    70
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     1    80    4   317   325 2152     4    18 1434    70
OvlAdjVol:                                    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.00 0.00  1.00  0.95 0.05  1.00  1.00 1.99  0.01  1.00 3.00  1.00
Final Sat.:     0    0  1600  1524   76  1600  1600 3194     6  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.05 0.05  0.20  0.20 0.67  0.67  0.01 0.30  0.04
OvlAdjV/S:                               0.00
Crit Moves:       ****        ****                     ****        ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                  2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #108 TUSTIN AVE/COAST HWY
********************************************************************************
Cycle (sec):        100                Critical Vol./Cap.(X):         0.739
Loss Time (sec):      0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:       71                Level Of Service:                  C
********************************************************************************
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       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  1! 0  0    0  0  1! 0  0    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0    34    1    15    44 2202     1     1 1363    36
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    34    1    15    44 2202     1     1 1363    36
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:    0    0     0     0    0     1     0   57     0     0  164     0
Initial Fut:    0    0     0    34    1    16    44 2259     1     1 1527    36
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:     0    0     0    34    1    16    44 2259     1     1 1527    36
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0    34    1    16    44 2259     1     1 1527    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:    0    0     0    34    1    16    44 2259     1     1 1527    36
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.00 1.00  0.00  0.67 0.02  0.31  1.00 1.99  0.01  1.00 3.00  1.00
Final Sat.:     0 1600     0  1067   31   502  1600 3199     1  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.02 0.03  0.03  0.03 0.71  0.71  0.00 0.32  0.02
Crit Moves:                        ****                    ****        ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                  2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #109 BALBOA BAY DRIVEWAY/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.738
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        71                Level Of Service:                  C
********************************************************************************
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        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  1! 0  0    0  0  1! 0  0    1  0  2  0  1    1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      27    0    27     1    3     1     5 2072    40    62 1547    11
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:   27    0    27     1    3     1     5 2072    40    62 1547    11
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:    0    0     0     0    0     0     0   57     0     0  164     0
Initial Fut:   27    0    27     1    3     1     5 2129    40    62 1711    11
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:    27    0    27     1    3     1     5 2129    40    62 1711    11
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   27    0    27     1    3     1     5 2129    40    62 1711    11
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:   27    0    27     1    3     1     5 2129    40    62 1711    11
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.50 0.00  0.50  0.20 0.60  0.20  1.00 2.00  1.00  1.00 1.99  0.01
Final Sat.:   800    0   800   320  960   320  1600 3200  1600  1600 3180    20
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.00  0.03  0.00 0.00  0.00  0.00 0.67  0.03  0.04 0.54  0.54
Crit Moves:             ****  ****                  ****        ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                  2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #110 DOVER DR - BAY SHORE DR/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.702
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        76                Level Of Service:                  C
********************************************************************************
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        Protected        Protected
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:        1  0  1  1  0    3  0  1  0  1    2  0  2  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      17   63    30   893   53   117   126 2109    26    44 1344   497
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:   17   63    30   893   53   117   126 2109    26    44 1344   497
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:    0    0     0    15    0     1     3   53     0     0  164    52
Initial Fut:   17   63    30   908   53   118   129 2162    26    44 1508   549
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:    17   63    30   908   53   118   129 2162    26    44 1508     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   17   63    30   908   53   118   129 2162    26    44 1508     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:   17   63    30   908   53   118   129 2162    26    44 1508     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.35  0.65  3.00 1.00  1.00  2.00 2.96  0.04  1.00 3.00  1.00
Final Sat.:  1600 2168  1032  4800 1600  1600  3200 4743    57  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.03  0.03  0.19 0.03  0.07  0.04 0.46  0.46  0.03 0.31  0.00
Crit Moves:             ****  ****                  ****        ****
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--------------------------------------------------------------------------------
                        MARINERS POINTE - 10-107807
                 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                               AM PEAK HOUR
--------------------------------------------------------------------------------

                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #111 BAYSIDE DR/COAST HWY
********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):         0.664
Loss Time (sec):       0              Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        68              Level Of Service:                  B
********************************************************************************
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       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:       2  0  1! 0  0   1  0  0  1  0   1  0  3  0  1   1  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     326    7   39    62    8   55    83 2385  361    58 1600   16
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:  326    7   39    62    8   55    83 2385  361    58 1600   16
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Cumulatives:    2    0    0     0    0    0     0   63    0     0  214    0
Initial Fut:  328    7   39    62    8   55    83 2448  361    58 1814   16
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:   328    7   39    62    8   55    83 2448  361    58 1814   16
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  328    7   39    62    8   55    83 2448  361    58 1814   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:  328    7   39    62    8   55    83 2448  361    58 1814   16
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600
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:       2.63 0.06 0.31  1.00 0.13 0.87  1.00 3.00 1.00  1.00 4.00 1.00
Final Sat.:  4210   90  501  1600  203 1397  1600 4800 1600  1600 6400 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.08 0.08  0.04 0.04 0.04  0.05 0.51 0.23  0.04 0.28 0.01
Crit Moves:       ****            ****            ****       ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                        MARINERS POINTE - 10-107807
                 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                               AM PEAK HOUR
--------------------------------------------------------------------------------

                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #112 JAMBOREE RD/COAST HWY
********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):         0.664
Loss Time (sec):       0              Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        68              Level Of Service:                  B
********************************************************************************
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           Ignore          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:       1  0  1  1  0   1  0  2  0  1   3  0  3  1  0   2  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      26  365  105   155  237  751   937 1692   22   104 1030   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:   26  365  105   155  237  751   937 1692   22   104 1030   80
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Cumulatives:    8    2    0    55    0   19     0   71    3     0  187  112
Initial Fut:   34  367  105   210  237  770   937 1763   25   104 1217  192
User Adj:    1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00  1.00 1.00 0.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00  1.00 1.00 0.00
PHF Volume:    34  367  105   210  237    0   937 1763   25   104 1217    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   34  367  105   210  237    0   937 1763   25   104 1217    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 0.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00  1.00 1.00 0.00
FinalVolume:   34  367  105   210  237    0   937 1763   25   104 1217    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600
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 1.56 0.44  1.00 2.00 1.00  3.00 3.94 0.06  2.00 4.00 1.00
Final Sat.:  1600 2488  712  1600 3200 1600  4800 6311   89  3200 6400 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.15 0.15  0.13 0.07 0.00  0.20 0.28 0.28  0.03 0.19 0.00
Crit Moves:       ****       ****            ****                  ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                  2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                           Turning Movement Report
                                    NONE

Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume

#101 IRVINE AVE/DOVER DR
Base     94  766     3   221 1256    81    65  133    70    39  155   264   3147
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0     0    0     0     0   50     0     0   28     0     78
Total    94  766     3   221 1256    81    65  183    70    39  183   264   3225

#102 IRVINE AVE/17TH ST
Base    312  448    49   147  537   350   326  610   240   101  699    68   3887
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0     0    0     0     0    9     0     0    5     0     14
Total   312  448    49   147  537   350   326  619   240   101  704    68   3901

#103 DOVER DR/WESTCLIFF DR
Base    604  588     0     0  324    65   119    0   567     0    0     0   2267
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    5   28     0     0   50     0     0    0     9     0    0     0     92
Total   609  616     0     0  374    65   119    0   576     0    0     0   2359

#104 DOVER DR/16TH ST
Base    127 1072    42    69  925    21    22   25   125    22   12    56   2518
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0   33     0     0   59     0     0    0     0     0    0     0     92
Total   127 1105    42    69  984    21    22   25   125    22   12    56   2610

#105 DOVER DR/CLIFF DR
Base    128 1242     0     0 1079    63    50    0   120     0    0     0   2682
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0   33     0     0   59     0     0    0     0     0    0     0     92
Total   128 1275     0     0 1138    63    50    0   120     0    0     0   2774

#106 NEWPORT BLVD/COAST HWY
Base      0    0     0   648    0   428     0 1399   172     0 1946   518   5111
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0    55    0   156     0  208     4     0   80     2    505
Total     0    0     0   703    0   584     0 1607   176     0 2026   520   5616

#107 RIVERSIDE AVE/COAST HWY
Base     10   11     2   102    2   420   254 1560     5    11 2391    76   4844
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0     0    0     0     1  172     0     0  118     0    291
Total    10   11     2   102    2   420   255 1732     5    11 2509    76   5135
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                  2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume


#108 TUSTIN AVE/COAST HWY
Base      0    1     2    57    0    28    98 1563    21     0 2470    54   4294
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0     0    0     0     1  171     0     0  118     0    290
Total     0    1     2    57    0    28    99 1734    21     0 2588    54   4584

#109 BALBOA BAY DRIVEWAY/COAST HWY
Base     33    0    37     9    0    12     4 1940    34    44 2280    13   4406
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0     0    0     0     0  171     0     0  118     0    289
Total    33    0    37     9    0    12     4 2111    34    44 2398    13   4695

#110 DOVER DR - BAY SHORE DR/COAST HWY
Base     36   44    43   968   63   126   157 1439    26    52 2381  1088   6423
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0    54    0     5     2  169     0     0  113    31    374
Total    36   44    43  1022   63   131   159 1608    26    52 2494  1119   6797

#111 BAYSIDE DR/COAST HWY
Base    309    9    38    87    9    72    71 2108   402    88 3017    41   6251
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    7    0     0     0    0     0     0  219     4     0  137     0    367
Total   316    9    38    87    9    72    71 2327   406    88 3154    41   6618

#112 JAMBOREE RD/COAST HWY
Base     36  253    90   214  447  1292   859 1375    20   208 2070   160   7024
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    6    0     0   117    1     0    21  192     6     0  132    93    568
Total    42  253    90   331  448  1292   880 1567    26   208 2202   253   7592
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                    2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                  PM PEAK HOUR
--------------------------------------------------------------------------------

                       Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #101 IRVINE AVE/DOVER DR
********************************************************************************
Cycle (sec):          100               Critical Vol./Cap.(X):         0.682
Loss Time (sec):        0               Average Delay (sec/veh):      xxxxxx
Optimal Cycle:         59               Level Of Service:                  B
********************************************************************************
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  1  1  0   1  0  1  1  0   1  0  0  1  0   1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      94  766    3   221 1256   81    65  133   70    39  155  264
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  766    3   221 1256   81    65  133   70    39  155  264
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Cumulatives:    0    0    0     0    0    0     0   50    0     0   28    0
Initial Fut:   94  766    3   221 1256   81    65  183   70    39  183  264
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:    94  766    3   221 1256   81    65  183   70    39  183  264
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   94  766    3   221 1256   81    65  183   70    39  183  264
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:   94  766    3   221 1256   81    65  183   70    39  183  264
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600
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 1.99 0.01  1.00 1.88 0.12  1.00 0.72 0.28  1.00 1.00 1.00
Final Sat.:  1600 3188   12  1600 3006  194  1600 1157  443  1600 1600 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.06 0.24 0.24  0.14 0.42 0.42  0.04 0.16 0.16  0.02 0.11 0.17
Crit Moves:  ****                 ****       ****                        ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                    2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                  PM PEAK HOUR
--------------------------------------------------------------------------------

                       Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #102 IRVINE AVE/17TH ST
********************************************************************************
Cycle (sec):          100               Critical Vol./Cap.(X):         0.718
Loss Time (sec):        0               Average Delay (sec/veh):      xxxxxx
Optimal Cycle:         81               Level Of Service:                  C
********************************************************************************
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:         2  0  1  1  0   2  0  1  1  0   2  0  1  1  0   2  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     312  448   49   147  537  350   326  610  240   101  699   68
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:  312  448   49   147  537  350   326  610  240   101  699   68
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Cumulatives:    0    0    0     0    0    0     0    9    0     0    5    0
Initial Fut:  312  448   49   147  537  350   326  619  240   101  704   68
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:   312  448   49   147  537  350   326  619  240   101  704   68
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  312  448   49   147  537  350   326  619  240   101  704   68
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:  312  448   49   147  537  350   326  619  240   101  704   68
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600
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:       2.00 1.80 0.20  2.00 1.21 0.79  2.00 1.44 0.56  2.00 1.82 0.18
Final Sat.:  3200 2885  315  3200 1937 1263  3200 2306  894  3200 2918  282
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.10 0.16 0.16  0.05 0.28 0.28  0.10 0.27 0.27  0.03 0.24 0.24
Crit Moves:  ****                 ****       ****                   ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                  2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #103 DOVER DR/WESTCLIFF DR
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.461
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        42                Level Of Service:                  A
********************************************************************************
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          Ignore           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:        2  0  2  0  0    0  0  1  0  1    2  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     604  588     0     0  324    65   119    0   567     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:  604  588     0     0  324    65   119    0   567     0    0     0
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:    5   28     0     0   50     0     0    0     9     0    0     0
Initial Fut:  609  616     0     0  374    65   119    0   576     0    0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Volume:   609  616     0     0  374    65   119    0     0     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  609  616     0     0  374    65   119    0     0     0    0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
FinalVolume:  609  616     0     0  374    65   119    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       2.00 2.00  0.00  0.00 1.00  1.00  2.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:  3200 3200     0     0 1600  1600  3200    0  1600     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.19 0.19  0.00  0.00 0.23  0.04  0.04 0.00  0.00  0.00 0.00  0.00
Crit Moves:  ****                  ****        ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                  2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #104 DOVER DR/16TH ST
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.523
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        39                Level Of Service:                  A
********************************************************************************
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  1  1  0    1  0  1  1  0    0  0  1! 0  0    1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     127 1072    42    69  925    21    22   25   125    22   12    56
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:  127 1072    42    69  925    21    22   25   125    22   12    56
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:    0   33     0     0   59     0     0    0     0     0    0     0
Initial Fut:  127 1105    42    69  984    21    22   25   125    22   12    56
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:   127 1105    42    69  984    21    22   25   125    22   12    56
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  127 1105    42    69  984    21    22   25   125    22   12    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:  127 1105    42    69  984    21    22   25   125    22   12    56
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.93  0.07  1.00 1.96  0.04  0.13 0.14  0.73  1.00 1.00  1.00
Final Sat.:  1600 3083   117  1600 3133    67   205  233  1163  1600 1600  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.36  0.36  0.04 0.31  0.31  0.01 0.11  0.11  0.01 0.01  0.04
Crit Moves:       ****        ****                  ****        ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                  2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #105 DOVER DR/CLIFF DR
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.530
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        49                Level Of Service:                  A
********************************************************************************
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  0    0  0  1  1  0    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     128 1242     0     0 1079    63    50    0   120     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:  128 1242     0     0 1079    63    50    0   120     0    0     0
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:    0   33     0     0   59     0     0    0     0     0    0     0
Initial Fut:  128 1275     0     0 1138    63    50    0   120     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:   128 1275     0     0 1138    63    50    0   120     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  128 1275     0     0 1138    63    50    0   120     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:  128 1275     0     0 1138    63    50    0   120     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 2.00  0.00  0.00 1.90  0.10  1.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:  1600 3200     0     0 3032   168  1600    0  1600     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.40  0.00  0.00 0.38  0.38  0.03 0.00  0.08  0.00 0.00  0.00
Crit Moves:  ****                  ****                  ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                  2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #106 NEWPORT BLVD/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.867
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:       172                Level Of Service:                  D
********************************************************************************
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       Protected        Protected
Rights:           Include          Include        Ignore             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  0  0  0    2  0  0  0  1    0  0  2  0  1    0  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0   648    0   428     0 1399   172     0 1946   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    0     0   648    0   428     0 1399   172     0 1946   518
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:    0    0     0    55    0   156     0  208     4     0   80     2
Initial Fut:    0    0     0   703    0   584     0 1607   176     0 2026   520
User 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
PHF 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
PHF Volume:     0    0     0   703    0   584     0 1607     0     0 2026     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0   703    0   584     0 1607     0     0 2026     0
PCE 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
MLF 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
FinalVolume:    0    0     0   703    0   584     0 1607     0     0 2026     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.00 0.00  0.00  2.00 0.00  1.00  0.00 2.00  1.00  0.00 3.00  1.00
Final Sat.:     0    0     0  3200    0  1600     0 3200  1600     0 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.22 0.00  0.37  0.00 0.50  0.00  0.00 0.42  0.00
Crit Moves:                              ****       ****        ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                  2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #107 RIVERSIDE AVE/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.791
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        89                Level Of Service:                  C
********************************************************************************
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       Protected        Protected
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:        0  0  1! 0  0    0  1  0  0  1    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10   11     2   102    2   420   254 1560     5    11 2391    76
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   11     2   102    2   420   254 1560     5    11 2391    76
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:    0    0     0     0    0     0     1  172     0     0  118     0
Initial Fut:   10   11     2   102    2   420   255 1732     5    11 2509    76
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:    10   11     2   102    2   420   255 1732     5    11 2509    76
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   10   11     2   102    2   420   255 1732     5    11 2509    76
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   11     2   102    2   420   255 1732     5    11 2509    76
OvlAdjVol:                                165
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 0.48  0.09  0.98 0.02  1.00  1.00 1.99  0.01  1.00 3.00  1.00
Final Sat.:   696  765   139  1569   31  1600  1600 3191     9  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.01  0.01  0.06 0.07  0.26  0.16 0.54  0.54  0.01 0.52  0.05
OvlAdjV/S:                               0.10
Crit Moves:  ****                        ****  ****                  ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                  2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #108 TUSTIN AVE/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.654
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        54                Level Of Service:                  B
********************************************************************************
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       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  1  0    0  0  1! 0  0    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    1     2    57    0    28    98 1563    21     0 2470    54
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    1     2    57    0    28    98 1563    21     0 2470    54
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:    0    0     0     0    0     0     1  171     0     0  118     0
Initial Fut:    0    1     2    57    0    28    99 1734    21     0 2588    54
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:     0    1     2    57    0    28    99 1734    21     0 2588    54
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    1     2    57    0    28    99 1734    21     0 2588    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    1     2    57    0    28    99 1734    21     0 2588    54
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.00 0.33  0.67  0.67 0.00  0.33  1.00 1.98  0.02  1.00 3.00  1.00
Final Sat.:     0  533  1067  1073    0   527  1600 3162    38  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.04 0.00  0.05  0.06 0.55  0.55  0.00 0.54  0.03
Crit Moves:  ****                        ****  ****                  ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                       MARINERS POINTE - 10-107807
                 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #109 BALBOA BAY DRIVEWAY/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):        0.805
Loss Time (sec):       0                Average Delay (sec/veh):     xxxxxx
Optimal Cycle:        96                Level Of Service:                 D
********************************************************************************
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        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  1! 0  0   0  0  1! 0  0   1  0  2  0  1   1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      33    0   37      9    0   12      4 1940   34     44 2280   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:   33    0   37      9    0   12      4 1940   34     44 2280   13
Added Vol:      0    0    0      0    0    0      0    0    0      0    0    0
Cumulatives:    0    0    0      0    0    0      0  171    0      0  118    0
Initial Fut:   33    0   37      9    0   12      4 2111   34     44 2398   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:     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:    33    0   37      9    0   12      4 2111   34     44 2398   13
Reduct Vol:     0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:   33    0   37      9    0   12      4 2111   34     44 2398   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:   33    0   37      9    0   12      4 2111   34     44 2398   13
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600   1600 1600 1600   1600 1600 1600   1600 1600 1600
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:       0.47 0.00 0.53   0.43 0.00 0.57   1.00 2.00 1.00   1.00 1.99 0.01
Final Sat.:   754    0  846    686    0  914   1600 3200 1600   1600 3183   17
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.00 0.04   0.01 0.00 0.01   0.00 0.66 0.02   0.03 0.75 0.75
Crit Moves:               ****  ****            ****                    ****
********************************************************************************
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--------------------------------------------------------------------------------
                       MARINERS POINTE - 10-107807
                 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #110 DOVER DR - BAY SHORE DR/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):        0.809
Loss Time (sec):       0                Average Delay (sec/veh):     xxxxxx
Optimal Cycle:       120                Level Of Service:                 D
********************************************************************************
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       Protected        Protected
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:        1  0  1  1  0   3  0  1  0  1   2  0  2  1  0   1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      36   44   43    968   63  126    157 1439   26     52 2381 1088
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:   36   44   43    968   63  126    157 1439   26     52 2381 1088
Added Vol:      0    0    0      0    0    0      0    0    0      0    0    0
Cumulatives:    0    0    0     54    0    5      2  169    0      0  113   31
Initial Fut:   36   44   43   1022   63  131    159 1608   26     52 2494 1119
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:    36   44   43   1022   63  131    159 1608   26     52 2494    0
Reduct Vol:     0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:   36   44   43   1022   63  131    159 1608   26     52 2494    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:   36   44   43   1022   63  131    159 1608   26     52 2494    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600   1600 1600 1600   1600 1600 1600   1600 1600 1600
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 1.01 0.99   3.00 1.00 1.00   2.00 2.95 0.05   1.00 3.00 1.00
Final Sat.:  1600 1618 1582   4800 1600 1600   3200 4724   76   1600 4800 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.03 0.03   0.21 0.04 0.08   0.05 0.34 0.34   0.03 0.52 0.00
Crit Moves:          ****     ****             ****                    ****
********************************************************************************
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2013CUML-NP-PM            Mon Jan 31, 2011 09:29:02              Page 13-1
-------------------------------------------------------------------------------
                        MARINERS POINTE - 10-107807
                 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                PM PEAK HOUR
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*******************************************************************************
Intersection #111 BAYSIDE DR/COAST HWY
*******************************************************************************
Cycle (sec):        100               Critical Vol./Cap.(X):        0.670
Loss Time (sec):      0               Average Delay (sec/veh):     xxxxxx
Optimal Cycle:       69               Level Of Service:                 B
*******************************************************************************
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       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:        2  0  1! 0  0   1  0  0  1  0   1  0  3  0  1   1  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     309    9    38    87    9    72    71 2108   402    88 3017    41
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:  309    9    38    87    9    72    71 2108   402    88 3017    41
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:    7    0     0     0    0     0     0  219     4     0  137     0
Initial Fut:  316    9    38    87    9    72    71 2327   406    88 3154    41
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:   316    9    38    87    9    72    71 2327   406    88 3154    41
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  316    9    38    87    9    72    71 2327   406    88 3154    41
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:  316    9    38    87    9    72    71 2327   406    88 3154    41
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       2.62 0.07  0.31  1.00 0.11  0.89  1.00 3.00  1.00  1.00 4.00  1.00
Final Sat.:  4179  119   502  1600  178  1422  1600 4800  1600  1600 6400  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.08  0.08  0.05 0.05  0.05  0.04 0.48  0.25  0.06 0.49  0.03
Crit Moves:       ****        ****                  ****        ****
*******************************************************************************
```

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2013CUML-NP-PM            Mon Jan 31, 2011 09:29:02              Page 14-1
-------------------------------------------------------------------------------
                        MARINERS POINTE - 10-107807
                 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                PM PEAK HOUR
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*******************************************************************************
Intersection #112 JAMBOREE RD/COAST HWY
*******************************************************************************
Cycle (sec):        100               Critical Vol./Cap.(X):        0.841
Loss Time (sec):      0               Average Delay (sec/veh):     xxxxxx
Optimal Cycle:      144               Level Of Service:                 D
*******************************************************************************
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          Ignore           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:        1  0  1  1  0   1  0  2  0  1   3  0  3  1  0   2  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      36  253    90   214  447  1292   859 1375    20   208 2070   160
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:   36  253    90   214  447  1292   859 1375    20   208 2070   160
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:    6    0     0   117    1     0    21  192     6     0  132    93
Initial Fut:   42  253    90   331  448  1292   880 1567    26   208 2202   253
User Adj:    1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Volume:    42  253    90   331  448     0   880 1567    26   208 2202     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   42  253    90   331  448     0   880 1567    26   208 2202     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  0.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
FinalVolume:   42  253    90   331  448     0   880 1567    26   208 2202     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.48  0.52  1.00 2.00  1.00  3.00 3.93  0.07  2.00 4.00  1.00
Final Sat.:  1600 2360   840  1600 3200  1600  4800 6296   104  3200 6400  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.03 0.11  0.11  0.21 0.14  0.00  0.18 0.25  0.25  0.07 0.34  0.00
Crit Moves:       ****        ****             ****                  ****
*******************************************************************************
```

Forecast Cumulative With Project Conditions

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                    2013 CUMULATIVE WITH PROJECT CONDITIONS
                                AM PEAK HOUR
--------------------------------------------------------------------------------
                            Turning Movement Report
                                    PROJ-AM

Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume

#101 IRVINE AVE/DOVER DR
Base     77  746    18   197  657    33    54  139    59    20  110   265   2375
Added     0    0     0     1    1     0     0    0     0     0    0     0      2
Cumula    0    0     0     0    0     0     0   13     0     0   46     0     59
Total    77  746    18   198  658    33    54  152    59    20  156   265   2436

#102 IRVINE AVE/17TH ST
Base    323  547    27   220  448   143   208  495   205    28  322    60   3026
Added     0    0     0     1    0     0     0    1     0     0    0     0      2
Cumula    0    0     0     0    0     0     0    3     0     0    9     0     12
Total   323  547    27   221  448   143   208  499   205    28  331    60   3040

#103 DOVER DR/WESTCLIFF DR
Base    355  453     0     0  388    58    85    0   585     0    0     0   1924
Added     0    0     0     0    1     0     0    0     2     0    0     0      3
Cumula    9   46     0     0   13     0     0    0     3     0    0     0     71
Total   364  499     0     0  402    58    85    0   590     0    0     0   1998

#104 DOVER DR/16TH ST
Base    123  677    31    41 1030    57    45   20   177    64   16    58   2339
Added     0    1     0     0    3     0     0    0     1     0    0     0      5
Cumula    0   55     0     0   16     0     0    0     0     0    0     0     71
Total   123  733    31    41 1049    57    45   20   178    64   16    58   2415

#105 DOVER DR/CLIFF DR
Base    120  717     0     0 1016   249   112    0   159     0    0     0   2373
Added     0    1     0     0    4     0     0    0     1     0    0     0      6
Cumula    0   55     0     0   16     0     0    0     0     0    0     0     71
Total   120  773     0     0 1036   249   112    0   160     0    0     0   2450

#106 NEWPORT BLVD/COAST HWY
Base      0    0     0   424    0   335     0 2197   200     0  891   365   4412
Added     0    0     0     1    0     0     0    1     0     0    0     0      2
Cumula    0    0     0    15    0    40     0  167     6     0  113     5    346
Total     0    0     0   440    0   375     0 2365   206     0 1004   370   4760

#107 RIVERSIDE AVE/COAST HWY
Base      0    0     1    80    4   316   325 2095     4    18 1263    70   4176
Added     0    0     0     1    0     0     0    4     0     0    1     0      6
Cumula    0    0     0     0    0     1     0   57     0     0  171     0    229
Total     0    0     1    81    4   317   325 2156     4    18 1435    70   4411
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                    2013 CUMULATIVE WITH PROJECT CONDITIONS
                                AM PEAK HOUR
--------------------------------------------------------------------------------
Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume


#108 TUSTIN AVE/COAST HWY
Base      0    0     0    34    1    15    44 2202     1     1 1363    36   3697
Added     0    0     0     0    0     0     0    5     0     0    1     0      6
Cumula    0    0     0     0    0     1     0   57     0     0  164     0    222
Total     0    0     0    34    1    16    44 2264     1     1 1528    36   3925

#109 BALBOA BAY DRIVEWAY/COAST HWY
Base     27    0    27     1    3     1     5 2072    40    62 1547    11   3796
Added     0    0     0     0    0     0     0    5     0     2    1     0      8
Cumula    0    0     0     0    0     0     0   57     0     0  164     0    221
Total    27    0    27     1    3     1     5 2134    40    64 1712    11   4025

#110 DOVER DR - BAY SHORE DR/COAST HWY
Base     17   63    30   893   53   117   126 2109    26    44 1344   497   5319
Added     0    0     0     0    0     5     6    1     0     0    3     0     15
Cumula    0    0     0    15    0     1     3   53     0     0  164    52    288
Total    17   63    30   908   53   123   135 2163    26    44 1511   549   5622

#111 BAYSIDE DR/COAST HWY
Base    326    7    39    62    8    55    83 2385   361    58 1600    16   5000
Added     1    0     0     0    0     0     0    0     0     0    2     0      3
Cumula    2    0     0     0    0     0     0   63     0     0  214     0    279
Total   329    7    39    62    8    55    83 2448   361    58 1816    16   5282

#112 JAMBOREE RD/COAST HWY
Base     26  365   105   155  237   751   937 1692    22   104 1030    80   5504
Added     0    0     0     0    0     1     0    0     0     0    1     0      2
Cumula    8    2     0    55    0    19     0   71     3     0  187   112    457
Total    34  367   105   210  237   771   937 1763    25   104 1218   192   5963
```

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-------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                    2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 AM PEAK HOUR
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*******************************************************************************
Intersection #101 IRVINE AVE/DOVER DR
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):        0.562
Loss Time (sec):       0                Average Delay (sec/veh):     xxxxxx
Optimal Cycle:        42                Level Of Service:                 A
*******************************************************************************
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  1  1  0    1  0  1  1  0    1  0  0  1  0    1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      77  746    18   197  657    33    54  139    59    20  110   265
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:   77  746    18   197  657    33    54  139    59    20  110   265
Added Vol:      0    0     0     1    1     0     0    0     0     0    0     0
Cumulatives:    0    0     0     0    0     0     0   13     0     0   46     0
Initial Fut:   77  746    18   198  658    33    54  152    59    20  156   265
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:    77  746    18   198  658    33    54  152    59    20  156   265
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   77  746    18   198  658    33    54  152    59    20  156   265
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  746    18   198  658    33    54  152    59    20  156   265
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.95  0.05  1.00 1.90  0.10  1.00 0.72  0.28  1.00 1.00  1.00
Final Sat.:  1600 3125    75  1600 3047   153  1600 1153   447  1600 1600  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.05 0.24  0.24  0.12 0.22  0.22  0.03 0.13  0.13  0.01 0.10  0.17
Crit Moves:       ****        ****             ****                        ****
*******************************************************************************
```

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-------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                    2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 AM PEAK HOUR
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*******************************************************************************
Intersection #102 IRVINE AVE/17TH ST
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):        0.514
Loss Time (sec):       0                Average Delay (sec/veh):     xxxxxx
Optimal Cycle:        47                Level Of Service:                 A
*******************************************************************************
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:        2  0  1  1  0    2  0  1  1  0    2  0  1  1  0    2  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     323  547    27   220  448   143   208  495   205    28  322    60
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:  323  547    27   220  448   143   208  495   205    28  322    60
Added Vol:      0    0     0     1    0     0     0    1     0     0    0     0
Cumulatives:    0    0     0     0    0     0     0    3     0     0    9     0
Initial Fut:  323  547    27   221  448   143   208  499   205    28  331    60
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:   323  547    27   221  448   143   208  499   205    28  331    60
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  323  547    27   221  448   143   208  499   205    28  331    60
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:  323  547    27   221  448   143   208  499   205    28  331    60
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       2.00 1.91  0.09  2.00 1.52  0.48  2.00 1.42  0.58  2.00 1.69  0.31
Final Sat.:  3200 3049   151  3200 2426   774  3200 2268   932  3200 2709   491
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.10 0.18  0.18  0.07 0.18  0.18  0.07 0.22  0.22  0.01 0.12  0.12
Crit Moves:  ****                  ****             ****        ****
*******************************************************************************
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                    2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #103 DOVER DR/WESTCLIFF DR
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.392
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        37                Level Of Service:                  A
********************************************************************************
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          Ignore           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:        2  0  2  0  0    0  0  1  0  1    2  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     355  453     0     0  388    58    85    0   585     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:  355  453     0     0  388    58    85    0   585     0    0     0
Added Vol:      0    0     0     0    1     0     0    0     2     0    0     0
Cumulatives:    9   46     0     0   13     0     0    0     3     0    0     0
Initial Fut:  364  499     0     0  402    58    85    0   590     0    0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Volume:   364  499     0     0  402    58    85    0     0     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  364  499     0     0  402    58    85    0     0     0    0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
FinalVolume:  364  499     0     0  402    58    85    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       2.00 2.00  0.00  0.00 1.00  1.00  2.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:  3200 3200     0     0 1600  1600  3200    0  1600     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.11 0.16  0.00  0.00 0.25  0.04  0.03 0.00  0.00  0.00 0.00  0.00
Crit Moves:  ****                  ****        ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                    2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #104 DOVER DR/16TH ST
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.614
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        48                Level Of Service:                  B
********************************************************************************
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  1  1  0    1  0  1  1  0    0  0  1! 0  0    1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     123  677    31    41 1030    57    45   20   177    64   16    58
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:  123  677    31    41 1030    57    45   20   177    64   16    58
Added Vol:      0    1     0     0    3     0     0    0     1     0    0     0
Cumulatives:    0   55     0     0   16     0     0    0     0     0    0     0
Initial Fut:  123  733    31    41 1049    57    45   20   178    64   16    58
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:   123  733    31    41 1049    57    45   20   178    64   16    58
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  123  733    31    41 1049    57    45   20   178    64   16    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:  123  733    31    41 1049    57    45   20   178    64   16    58
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.92  0.08  1.00 1.90  0.10  0.19 0.08  0.73  1.00 1.00  1.00
Final Sat.:  1600 3070   130  1600 3035   165   296  132  1172  1600 1600  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.24  0.24  0.03 0.35  0.35  0.03 0.15  0.15  0.04 0.01  0.04
Crit Moves:  ****                  ****             ****        ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                    2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #105 DOVER DR/CLIFF DR
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.577
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        54                Level Of Service:                  A
********************************************************************************
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  0    0  0  1  1  0    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     120  717     0     0 1016   249   112    0   159     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:  120  717     0     0 1016   249   112    0   159     0    0     0
Added Vol:      0    1     0     0    4     0     0    0     1     0    0     0
Cumulatives:    0   55     0     0   16     0     0    0     0     0    0     0
Initial Fut:  120  773     0     0 1036   249   112    0   160     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:   120  773     0     0 1036   249   112    0   160     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  120  773     0     0 1036   249   112    0   160     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:  120  773     0     0 1036   249   112    0   160     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 2.00  0.00  0.00 1.61  0.39  1.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:  1600 3200     0     0 2580   620  1600    0  1600     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.24  0.00  0.00 0.40  0.40  0.07 0.00  0.10  0.00 0.00  0.00
Crit Moves:  ****                  ****                   ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                    2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #106 NEWPORT BLVD/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.973
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:       180                Level Of Service:                  E
********************************************************************************
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       Protected        Protected
Rights:           Include          Include          Ignore           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  0  0  0    2  0  0  0  1    0  0  2  0  1    0  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0   424    0   335     0 2197   200     0  891   365
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   424    0   335     0 2197   200     0  891   365
Added Vol:      0    0     0     1    0     0     0    1     0     0    0     0
Cumulatives:    0    0     0    15    0    40     0  167     6     0  113     5
Initial Fut:    0    0     0   440    0   375     0 2365   206     0 1004   370
User 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
PHF 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
PHF Volume:     0    0     0   440    0   375     0 2365     0     0 1004     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0   440    0   375     0 2365     0     0 1004     0
PCE 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
MLF 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
FinalVolume:    0    0     0   440    0   375     0 2365     0     0 1004     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.00 0.00  0.00  2.00 0.00  1.00  0.00 2.00  1.00  0.00 3.00  1.00
Final Sat.:     0    0     0  3200    0  1600     0 3200  1600     0 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.14 0.00  0.23  0.00 0.74  0.00  0.00 0.21  0.00
Crit Moves:                              ****       ****        ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                    2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #107 RIVERSIDE AVE/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.737
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        71                Level Of Service:                  C
********************************************************************************
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       Protected        Protected
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:        0  0  0  0  1    0  1  0  0  1    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     1    80    4   316   325 2095     4    18 1263    70
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     1    80    4   316   325 2095     4    18 1263    70
Added Vol:      0    0     0     1    0     0     0    4     0     0    1     0
Cumulatives:    0    0     0     0    0     1     0   57     0     0  171     0
Initial Fut:    0    0     1    81    4   317   325 2156     4    18 1435    70
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:     0    0     1    81    4   317   325 2156     4    18 1435    70
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     1    81    4   317   325 2156     4    18 1435    70
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     1    81    4   317   325 2156     4    18 1435    70
OvlAdjVol:                                  0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.00 0.00  1.00  0.95 0.05  1.00  1.00 1.99  0.01  1.00 3.00  1.00
Final Sat.:     0    0  1600  1525   75  1600  1600 3194     6  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.05 0.05  0.20  0.20 0.68  0.67  0.01 0.30  0.04
OvlAdjV/S:                               0.00
Crit Moves:       ****        ****                  ****        ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                    2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #108 TUSTIN AVE/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.740
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        72                Level Of Service:                  C
********************************************************************************
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       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  1! 0  0    0  0  1! 0  0    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0    34    1    15    44 2202     1     1 1363    36
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    34    1    15    44 2202     1     1 1363    36
Added Vol:      0    0     0     0    0     0     0    5     0     0    1     0
Cumulatives:    0    0     0     0    0     1     0   57     0     0  164     0
Initial Fut:    0    0     0    34    1    16    44 2264     1     1 1528    36
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:     0    0     0    34    1    16    44 2264     1     1 1528    36
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0    34    1    16    44 2264     1     1 1528    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:    0    0     0    34    1    16    44 2264     1     1 1528    36
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.00 1.00  0.00  0.67 0.02  0.31  1.00 1.99  0.01  1.00 3.00  1.00
Final Sat.:     0 1600     0  1067   31   502  1600 3199     1  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.02 0.03  0.03  0.03 0.71  0.71  0.00 0.32  0.02
Crit Moves:                        ****             ****        ****
********************************************************************************
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-------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
                   2013 CUMULATIVE WITH PROJECT CONDITIONS
                                AM PEAK HOUR
-------------------------------------------------------------------------------

                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*******************************************************************************
Intersection #109 BALBOA BAY DRIVEWAY/COAST HWY
*******************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):        0.741
Loss Time (sec):       0              Average Delay (sec/veh):     xxxxxx
Optimal Cycle:        72              Level Of Service:                 C
*******************************************************************************
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        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  1! 0  0   0  0  1! 0  0   1  0  2  0  1   1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       27    0   27     1    3    1     5 2072   40    62 1547   11
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:    27    0   27     1    3    1     5 2072   40    62 1547   11
Added Vol:       0    0    0     0    0    0     0    5    0     2    1    0
Cumulatives:     0    0    0     0    0    0     0   57    0     0  164    0
Initial Fut:    27    0   27     1    3    1     5 2134   40    64 1712   11
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:     27    0   27     1    3    1     5 2134   40    64 1712   11
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    27    0   27     1    3    1     5 2134   40    64 1712   11
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:    27    0   27     1    3    1     5 2134   40    64 1712   11
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1600 1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600
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:        0.50 0.00 0.50  0.20 0.60 0.20  1.00 2.00 1.00  1.00 1.99 0.01
Final Sat.:    800    0  800   320  960  320  1600 3200 1600  1600 3180   20
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.02 0.00 0.03  0.00 0.00 0.00  0.00 0.67 0.03  0.04 0.54 0.54
Crit Moves:               ****  ****                ****        ****
*******************************************************************************
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-------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
                   2013 CUMULATIVE WITH PROJECT CONDITIONS
                                AM PEAK HOUR
-------------------------------------------------------------------------------

                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*******************************************************************************
Intersection #110 DOVER DR - BAY SHORE DR/COAST HWY
*******************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):        0.702
Loss Time (sec):       0              Average Delay (sec/veh):     xxxxxx
Optimal Cycle:        76              Level Of Service:                 C
*******************************************************************************
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       Protected        Protected
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:        1  0  1  1  0   3  0  1  0  1   2  0  2  1  0   1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       17   63   30   893   53  117   126 2109   26    44 1344  497
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:    17   63   30   893   53  117   126 2109   26    44 1344  497
Added Vol:       0    0    0     0    0    5     6    1    0     0    3    0
Cumulatives:     0    0    0    15    0    1     3   53    0     0  164   52
Initial Fut:    17   63   30   908   53  123   135 2163   26    44 1511  549
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:     17   63   30   908   53  123   135 2163   26    44 1511    0
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    17   63   30   908   53  123   135 2163   26    44 1511    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:    17   63   30   908   53  123   135 2163   26    44 1511    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1600 1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600
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 1.35 0.65  3.00 1.00 1.00  2.00 2.96 0.04  1.00 3.00 1.00
Final Sat.:   1600 2168 1032  4800 1600 1600  3200 4743   57  1600 4800 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.01 0.03 0.03  0.19 0.03 0.08  0.04 0.46 0.46  0.03 0.31 0.00
Crit Moves:               ****  ****                ****        ****
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                         MARINERS POINTE - 10-107807
                   2013 CUMULATIVE WITH PROJECT CONDITIONS
                                AM PEAK HOUR
--------------------------------------------------------------------------------
                       Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #111 BAYSIDE DR/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.664
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        68                Level Of Service:                  B
********************************************************************************
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       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:        2  0  1! 0  0   1  0  0  1  0   1  0  3  0  1   1  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      326    7   39   62    8   55   83 2385  361   58 1600   16
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:   326    7   39   62    8   55   83 2385  361   58 1600   16
Added Vol:       1    0    0    0    0    0    0    0    0    0    2    0
Cumulatives:     2    0    0    0    0    0    0   63    0    0  214    0
Initial Fut:   329    7   39   62    8   55   83 2448  361   58 1816   16
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:    329    7   39   62    8   55   83 2448  361   58 1816   16
Reduct Vol:      0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   329    7   39   62    8   55   83 2448  361   58 1816   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:   329    7   39   62    8   55   83 2448  361   58 1816   16
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
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:        2.63 0.06 0.31 1.00 0.13 0.87 1.00 3.00 1.00 1.00 4.00 1.00
Final Sat.:   4211   90  499 1600  203 1397 1600 4800 1600 1600 6400 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.08 0.08 0.08 0.04 0.04 0.04 0.05 0.51 0.23 0.04 0.28 0.01
Crit Moves:        ****           ****           ****      ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
                   2013 CUMULATIVE WITH PROJECT CONDITIONS
                                AM PEAK HOUR
--------------------------------------------------------------------------------
                       Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #112 JAMBOREE RD/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.664
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        68                Level Of Service:                  B
********************************************************************************
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           Ignore          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:        1  0  1  1  0   1  0  2  0  1   3  0  3  1  0   2  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       26  365  105  155  237  751  937 1692   22  104 1030   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:    26  365  105  155  237  751  937 1692   22  104 1030   80
Added Vol:       0    0    0    0    0    1    0    0    0    0    1    0
Cumulatives:     8    2    0   55    0   19    0   71    3    0  187  112
Initial Fut:    34  367  105  210  237  771  937 1763   25  104 1218  192
User Adj:     1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj:      1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Volume:     34  367  105  210  237    0  937 1763   25  104 1218    0
Reduct Vol:      0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:    34  367  105  210  237    0  937 1763   25  104 1218    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 0.00
MLF Adj:      1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume:    34  367  105  210  237    0  937 1763   25  104 1218    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
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 1.56 0.44 1.00 2.00 1.00 3.00 3.94 0.06 2.00 4.00 1.00
Final Sat.:   1600 2488  712 1600 3200 1600 4800 6311   89 3200 6400 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.02 0.15 0.15 0.13 0.07 0.00 0.20 0.28 0.28 0.03 0.19 0.00
Crit Moves:        ****      ****           ****                ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                            Turning Movement Report
                                    PROJ-PM

Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume

#101 IRVINE AVE/DOVER DR
Base     94  766     3   221 1256    81    65  133    70    39  155   264   3147
Added     0    2     0     2    2     0     0    0     0     0    0     2      8
Cumula    0    0     0     0    0     0     0   50     0     0   28     0     78
Total    94  768     3   223 1258    81    65  183    70    39  183   266   3233

#102 IRVINE AVE/17TH ST
Base    312  448    49   147  537   350   326  610   240   101  699    68   3887
Added     0    0     0     2    0     0     0    5     0     0    4     2     13
Cumula    0    0     0     0    0     0     0    9     0     0    5     0     14
Total   312  448    49   149  537   350   326  624   240   101  708    70   3914

#103 DOVER DR/WESTCLIFF DR
Base    604  588     0     0  324    65   119    0   567     0    0     0   2267
Added     5    4     0     0    5     0     0    0     7     0    0     0     21
Cumula    5   28     0     0   50     0     0    0     9     0    0     0     92
Total   614  620     0     0  379    65   119    0   583     0    0     0   2380

#104 DOVER DR/16TH ST
Base    127 1072    42    69  925    21    22   25   125    22   12    56   2518
Added     2    9     0     0   12     0     0    0     2     0    0     0     25
Cumula    0   33     0     0   59     0     0    0     0     0    0     0     92
Total   129 1114    42    69  996    21    22   25   127    22   12    56   2635

#105 DOVER DR/CLIFF DR
Base    128 1242     0     0 1079    63    50    0   120     0    0     0   2682
Added     4   11     0     0   14     0     0    0     5     0    0     0     34
Cumula    0   33     0     0   59     0     0    0     0     0    0     0     92
Total   132 1286     0     0 1152    63    50    0   125     0    0     0   2808

#106 NEWPORT BLVD/COAST HWY
Base      0    0     0   648    0   428     0 1399   172     0 1946   518   5111
Added     0    0     0     5    0     0     0    5     0     0    4     0     14
Cumula    0    0     0    55    0   156     0  208     4     0   80     2    505
Total     0    0     0   708    0   584     0 1612   176     0 2030   520   5630

#107 RIVERSIDE AVE/COAST HWY
Base     10   11     2   102    2   420   254 1560     5    11 2391    76   4844
Added     0    0     0     2    0     0     0   14     0     0   11     2     29
Cumula    0    0     0     0    0     0     1  172     0     0  118     0    291
Total    10   11     2   104    2   420   255 1746     5    11 2520    78   5164
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                   2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume


#108 TUSTIN AVE/COAST HWY
Base      0    1     2    57    0    28    98 1563    21     0 2470    54   4294
Added     0    0     0     0    0     0     0   17     0     0   13     0     30
Cumula    0    0     0     0    0     0     1  171     0     0  118     0    290
Total     0    1     2    57    0    28    99 1751    21     0 2601    54   4614

#109 BALBOA BAY DRIVEWAY/COAST HWY
Base     33    0    37     9    0    12     4 1940    34    44 2280    13   4406
Added     0    0     0     0    0     0     0   17     0    23   13     0     53
Cumula    0    0     0     0    0     0     0  171     0     0  118     0    289
Total    33    0    37     9    0    12     4 2128    34    67 2411    13   4748

#110 DOVER DR - BAY SHORE DR/COAST HWY
Base     36   44    43   968   63   126   157 1439    26    52 2381  1088   6423
Added     0    0     0     0    0    19    31    9     0     0   12     0     71
Cumula    0    0     0    54    0     5     2  169     0     0  113    31    374
Total    36   44    43  1022   63   150   190 1617    26    52 2506  1119   6868

#111 BAYSIDE DR/COAST HWY
Base    309    9    38    87    9    72    71 2108   402    88 3017    41   6251
Added     5    0     0     0    0     0     0    5     4     0    7     0     21
Cumula    7    0     0     0    0     0     0  219     4     0  137     0    367
Total   321    9    38    87    9    72    71 2332   410    88 3161    41   6639

#112 JAMBOREE RD/COAST HWY
Base     36  253    90   214  447  1292   859 1375    20   208 2070   160   7024
Added     0    0     0     0    0     2     2    4     0     0    5     0     13
Cumula    6    0     0   117    1     0    21  192     6     0  132    93    568
Total    42  253    90   331  448  1294   882 1571    26   208 2207   253   7605
```

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--------------------------------------------------------------------------------
                      MARINERS POINTE - 10-107807
                2013 CUMULATIVE WITH PROJECT CONDITIONS
                             PM PEAK HOUR
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
      ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #101 IRVINE AVE/DOVER DR
********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):        0.684
Loss Time (sec):       0              Average Delay (sec/veh):     xxxxxx
Optimal Cycle:        59              Level Of Service:                 B
********************************************************************************
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  1  1  0   1  0  1  1  0   1  0  0  1  0   1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      94  766    3  221 1256   81   65  133   70   39  155  264
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  766    3  221 1256   81   65  133   70   39  155  264
Added Vol:      0    2    0    2    2    0    0    0    0    0    0    2
Cumulatives:    0    0    0    0    0    0    0   50    0    0   28    0
Initial Fut:   94  768    3  223 1258   81   65  183   70   39  183  266
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:    94  768    3  223 1258   81   65  183   70   39  183  266
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   94  768    3  223 1258   81   65  183   70   39  183  266
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:   94  768    3  223 1258   81   65  183   70   39  183  266
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
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 1.99 0.01 1.00 1.88 0.12 1.00 0.72 0.28 1.00 1.00 1.00
Final Sat.:  1600 3188   12 1600 3006  194 1600 1157  443 1600 1600 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.06 0.24 0.24 0.14 0.42 0.42 0.04 0.16 0.16 0.02 0.11 0.17
Crit Moves:  ****                ****      ****                          ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                      MARINERS POINTE - 10-107807
                2013 CUMULATIVE WITH PROJECT CONDITIONS
                             PM PEAK HOUR
--------------------------------------------------------------------------------
                   Level Of Service Computation Report
      ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #102 IRVINE AVE/17TH ST
********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):        0.720
Loss Time (sec):       0              Average Delay (sec/veh):     xxxxxx
Optimal Cycle:        81              Level Of Service:                 C
********************************************************************************
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:       2  0  1  1  0   2  0  1  1  0   2  0  1  1  0   2  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     312  448   49  147  537  350  326  610  240  101  699   68
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:  312  448   49  147  537  350  326  610  240  101  699   68
Added Vol:      0    0    0    2    0    0    0    5    0    0    4    2
Cumulatives:    0    0    0    0    0    0    0    9    0    0    5    0
Initial Fut:  312  448   49  149  537  350  326  624  240  101  708   70
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:   312  448   49  149  537  350  326  624  240  101  708   70
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  312  448   49  149  537  350  326  624  240  101  708   70
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:  312  448   49  149  537  350  326  624  240  101  708   70
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
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:       2.00 1.80 0.20 2.00 1.21 0.79 2.00 1.44 0.56 2.00 1.82 0.18
Final Sat.:  3200 2885  315 3200 1937 1263 3200 2311  889 3200 2912  288
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.10 0.16 0.16 0.05 0.28 0.28 0.10 0.27 0.27 0.03 0.24 0.24
Crit Moves:  ****                ****      ****                     ****
********************************************************************************
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                    2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------

                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #103 DOVER DR/WESTCLIFF DR
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.466
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        43                Level Of Service:                  A
********************************************************************************
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          Ignore           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:        2  0  2  0  0    0  0  1  0  1    2  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     604  588     0     0  324    65   119    0   567     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:  604  588     0     0  324    65   119    0   567     0    0     0
Added Vol:      5    4     0     0    5     0     0    0     7     0    0     0
Cumulatives:    5   28     0     0   50     0     0    0     9     0    0     0
Initial Fut:  614  620     0     0  379    65   119    0   583     0    0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Volume:   614  620     0     0  379    65   119    0     0     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  614  620     0     0  379    65   119    0     0     0    0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
FinalVolume:  614  620     0     0  379    65   119    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       2.00 2.00  0.00  0.00 1.00  1.00  2.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:  3200 3200     0     0 1600  1600  3200    0  1600     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.19 0.19  0.00  0.00 0.24  0.04  0.04 0.00  0.00  0.00 0.00  0.00
Crit Moves:  ****                  ****        ****
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                    2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------

                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #104 DOVER DR/16TH ST
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.521
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        39                Level Of Service:                  A
********************************************************************************
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  1  1  0    1  0  1  1  0    0  0  1! 0  0    1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     127 1072    42    69  925    21    22   25   125    22   12    56
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:  127 1072    42    69  925    21    22   25   125    22   12    56
Added Vol:      2    9     0     0   12     0     0    0     2     0    0     0
Cumulatives:    0   33     0     0   59     0     0    0     0     0    0     0
Initial Fut:  129 1114    42    69  996    21    22   25   127    22   12    56
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:   129 1114    42    69  996    21    22   25   127    22   12    56
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  129 1114    42    69  996    21    22   25   127    22   12    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:  129 1114    42    69  996    21    22   25   127    22   12    56
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.93  0.07  1.00 1.96  0.04  0.13 0.14  0.73  1.00 1.00  1.00
Final Sat.:  1600 3084   116  1600 3134    66   202  230  1168  1600 1600  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.36  0.36  0.04 0.32  0.32  0.01 0.11  0.11  0.01 0.01  0.04
Crit Moves:  ****                  ****             ****        ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                    2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------

                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #105 DOVER DR/CLIFF DR
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.540
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        50                Level Of Service:                  A
********************************************************************************
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  0    0  0  1  1  0    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     128 1242     0     0 1079    63    50    0   120     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:  128 1242     0     0 1079    63    50    0   120     0    0     0
Added Vol:      4   11     0     0   14     0     0    0     5     0    0     0
Cumulatives:    0   33     0     0   59     0     0    0     0     0    0     0
Initial Fut:  132 1286     0     0 1152    63    50    0   125     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:   132 1286     0     0 1152    63    50    0   125     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  132 1286     0     0 1152    63    50    0   125     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:  132 1286     0     0 1152    63    50    0   125     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 2.00  0.00  0.00 1.90  0.10  1.00 0.00  1.00  0.00 0.00  0.00
Final Sat.: 1600 3200     0     0 3034   166  1600    0  1600     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.40  0.00  0.00 0.38  0.38  0.03 0.00  0.08  0.00 0.00  0.00
Crit Moves:  ****                  ****                   ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                    2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 PM PEAK HOUR
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                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #106 NEWPORT BLVD/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.869
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:       174                Level Of Service:                  D
********************************************************************************
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       Protected        Protected
Rights:           Include          Include        Ignore             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  0  0  0    2  0  0  0  1    0  0  2  0  1    0  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0   648    0   428     0 1399   172     0 1946   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    0     0   648    0   428     0 1399   172     0 1946   518
Added Vol:      0    0     0     5    0     0     0    5     0     0    4     0
Cumulatives:    0    0     0    55    0   156     0  208     4     0   80     2
Initial Fut:    0    0     0   708    0   584     0 1612   176     0 2030   520
User 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
PHF 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
PHF Volume:     0    0     0   708    0   584     0 1612     0     0 2030     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0   708    0   584     0 1612     0     0 2030     0
PCE 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
MLF 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
FinalVolume:    0    0     0   708    0   584     0 1612     0     0 2030     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.00 0.00  0.00  2.00 0.00  1.00  0.00 2.00  1.00  0.00 3.00  1.00
Final Sat.:    0    0     0  3200    0  1600     0 3200  1600     0 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.22 0.00  0.37  0.00 0.50  0.00  0.00 0.42  0.00
Crit Moves:                              ****       ****        ****
********************************************************************************
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--------------------------------------------------------------------------------
                       MARINERS POINTE - 10-107807
                 2013 CUMULATIVE WITH PROJECT CONDITIONS
                              PM PEAK HOUR
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #107 RIVERSIDE AVE/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.794
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        90                Level Of Service:                  C
********************************************************************************
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        Protected        Protected
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:       0  0  1! 0  0    0  1  0  0  1    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10   11     2   102    2   420   254 1560     5    11 2391    76
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   11     2   102    2   420   254 1560     5    11 2391    76
Added Vol:      0    0     0     2    0     0     0   14     0     0   11     2
Cumulatives:    0    0     0     0    0     0     1  172     0     0  118     0
Initial Fut:   10   11     2   104    2   420   255 1746     5    11 2520    78
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:    10   11     2   104    2   420   255 1746     5    11 2520    78
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   10   11     2   104    2   420   255 1746     5    11 2520    78
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   11     2   104    2   420   255 1746     5    11 2520    78
OvlAdjVol:                                  165
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 0.48  0.09  0.98 0.02  1.00  1.00 1.99  0.01  1.00 3.00  1.00
Final Sat.:   696  765   139  1570   30  1600  1600 3191     9  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.01  0.01  0.07 0.07  0.26  0.16 0.55  0.55  0.01 0.53  0.05
OvlAdjV/S:                                 0.10
Crit Moves:  ****                        ****  ****                  ****
********************************************************************************
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--------------------------------------------------------------------------------
                       MARINERS POINTE - 10-107807
                 2013 CUMULATIVE WITH PROJECT CONDITIONS
                              PM PEAK HOUR
--------------------------------------------------------------------------------
                    Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #108 TUSTIN AVE/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.657
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        54                Level Of Service:                  B
********************************************************************************
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        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  1  0    0  0  1! 0  0    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    1     2    57    0    28    98 1563    21     0 2470    54
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    1     2    57    0    28    98 1563    21     0 2470    54
Added Vol:      0    0     0     0    0     0     0   17     0     0   13     0
Cumulatives:    0    0     0     0    0     0     1  171     0     0  118     0
Initial Fut:    0    1     2    57    0    28    99 1751    21     0 2601    54
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:     0    1     2    57    0    28    99 1751    21     0 2601    54
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    1     2    57    0    28    99 1751    21     0 2601    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    1     2    57    0    28    99 1751    21     0 2601    54
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.00 0.33  0.67  0.67 0.00  0.33  1.00 1.98  0.02  1.00 3.00  1.00
Final Sat.:     0  533  1067  1073    0   527  1600 3162    38  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.04 0.00  0.05  0.06 0.55  0.55  0.00 0.54  0.03
Crit Moves:  ****                        ****  ****                  ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                    2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #109 BALBOA BAY DRIVEWAY/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.809
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        98                Level Of Service:                  D
********************************************************************************
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        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  1! 0  0    0  0  1! 0  0    1  0  2  0  1    1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      33    0    37     9    0    12     4 1940    34    44 2280    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:   33    0    37     9    0    12     4 1940    34    44 2280    13
Added Vol:      0    0     0     0    0     0     0   17     0    23   13     0
Cumulatives:    0    0     0     0    0     0     0  171     0     0  118     0
Initial Fut:   33    0    37     9    0    12     4 2128    34    67 2411    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:     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:    33    0    37     9    0    12     4 2128    34    67 2411    13
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   33    0    37     9    0    12     4 2128    34    67 2411    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:   33    0    37     9    0    12     4 2128    34    67 2411    13
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       0.47 0.00  0.53  0.43 0.00  0.57  1.00 2.00  1.00  1.00 1.99  0.01
Final Sat.:   754    0   846   686    0   914  1600 3200  1600  1600 3183    17
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.00  0.04  0.01 0.00  0.01  0.00 0.67  0.02  0.04 0.76  0.76
Crit Moves:             ****  ****             ****                  ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                    2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #110 DOVER DR - BAY SHORE DR/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.822
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:       128                Level Of Service:                  D
********************************************************************************
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        Protected        Protected
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:        1  0  1  1  0    3  0  1  0  1    2  0  2  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      36   44    43   968   63   126   157 1439    26    52 2381  1088
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:   36   44    43   968   63   126   157 1439    26    52 2381  1088
Added Vol:      0    0     0     0    0    19    31    9     0     0   12     0
Cumulatives:    0    0     0    54    0     5     2  169     0     0  113    31
Initial Fut:   36   44    43  1022   63   150   190 1617    26    52 2506  1119
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:    36   44    43  1022   63   150   190 1617    26    52 2506     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   36   44    43  1022   63   150   190 1617    26    52 2506     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:   36   44    43  1022   63   150   190 1617    26    52 2506     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.01  0.99  3.00 1.00  1.00  2.00 2.95  0.05  1.00 3.00  1.00
Final Sat.:  1600 1618  1582  4800 1600  1600  3200 4724    76  1600 4800  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.03  0.03  0.21 0.04  0.09  0.06 0.34  0.34  0.03 0.52  0.00
Crit Moves:       ****        ****             ****                  ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                    2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #111 BAYSIDE DR/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.672
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        69                Level Of Service:                  B
********************************************************************************
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       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:        2  0  1! 0  0    1  0  0  1  0    1  0  3  0  1    1  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     309    9    38    87    9    72    71 2108   402    88 3017    41
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:  309    9    38    87    9    72    71 2108   402    88 3017    41
Added Vol:      5    0     0     0    0     0     0    5     4     0    7     0
Cumulatives:    7    0     0     0    0     0     0  219     4     0  137     0
Initial Fut:  321    9    38    87    9    72    71 2332   410    88 3161    41
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:   321    9    38    87    9    72    71 2332   410    88 3161    41
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  321    9    38    87    9    72    71 2332   410    88 3161    41
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:  321    9    38    87    9    72    71 2332   410    88 3161    41
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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:       2.62 0.07  0.31  1.00 0.11  0.89  1.00 3.00  1.00  1.00 4.00  1.00
Final Sat.:  4187  117   496  1600  178  1422  1600 4800  1600  1600 6400  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.08  0.08  0.05 0.05  0.05  0.04 0.49  0.26  0.06 0.49  0.03
Crit Moves:       ****        ****                  ****        ****
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                    2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #112 JAMBOREE RD/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.843
Loss Time (sec):       0                Average Delay (sec/veh):      xxxxxx
Optimal Cycle:       145                Level Of Service:                  D
********************************************************************************
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          Ignore           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:        1  0  1  1  0    1  0  2  0  1    3  0  3  1  0    2  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      36  253    90   214  447  1292   859 1375    20   208 2070   160
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:   36  253    90   214  447  1292   859 1375    20   208 2070   160
Added Vol:      0    0     0     0    0     2     2    4     0     0    5     0
Cumulatives:    6    0     0   117    1     0    21  192     6     0  132    93
Initial Fut:   42  253    90   331  448  1294   882 1571    26   208 2207   253
User Adj:    1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Volume:    42  253    90   331  448     0   882 1571    26   208 2207     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   42  253    90   331  448     0   882 1571    26   208 2207     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  0.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
FinalVolume:   42  253    90   331  448     0   882 1571    26   208 2207     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
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 1.48  0.52  1.00 2.00  1.00  3.00 3.93  0.07  2.00 4.00  1.00
Final Sat.:  1600 2360   840  1600 3200  1600  4800 6296   104  3200 6400  1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.03 0.11  0.11  0.21 0.14  0.00  0.18 0.25  0.25  0.07 0.34  0.00
Crit Moves:       ****        ****             ****                  ****
********************************************************************************
```

State Highway - Existing Conditions

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      STATE HIGHWAY - EXISTING CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                            Turning Movement Report
                                     NONE

Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume

#101 IRVINE AVE/DOVER DR
Base     74  723    17   190  637    32    53  135    58    19  106   256   2300
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    74  723    17   190  637    32    53  135    58    19  106   256   2300

#102 IRVINE AVE/17TH ST
Base    313  530    26   214  435   136   201  478   198    27  307    58   2923
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   313  530    26   214  435   136   201  478   198    27  307    58   2923

#103 DOVER DR/WESTCLIFF DR
Base    343  436     0     0  376    57    83    0   568     0    0     0   1863
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   343  436     0     0  376    57    83    0   568     0    0     0   1863

#104 DOVER DR/16TH ST
Base    118  657    29    38 1000    56    43   19   171    62   13    53   2259
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   118  657    29    38 1000    56    43   19   171    62   13    53   2259

#105 DOVER DR/CLIFF DR
Base    116  693     0     0  963   242   109    0   154     0    0     0   2277
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   116  693     0     0  963   242   109    0   154     0    0     0   2277

#106 NEWPORT BLVD/COAST HWY
Base      0    0     0   387    0   291     0 2103   190     0  820   352   4143
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total     0    0     0   387    0   291     0 2103   190     0  820   352   4143

#107 RIVERSIDE AVE/COAST HWY
Base      0    0     1    78    4   307   315 1912     4    17 1135    68   3841
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total     0    0     1    78    4   307   315 1912     4    17 1135    68   3841

#108 TUSTIN AVE/COAST HWY
Base      0    0     0    33    1    14    42 2012     1     1 1232    35   3371
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total     0    0     0    33    1    14    42 2012     1     1 1232    35   3371

#109 BALBOA BAY DRIVEWAY/COAST HWY
Base     26    0    26     1    3     1     5 1882    39    60 1405    11   3459
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    26    0    26     1    3     1     5 1882    39    60 1405    11   3459
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      STATE HIGHWAY - EXISTING CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume


#110 DOVER DR - BAY SHORE DR/COAST HWY
Base     16   62    29   848   52   109   118 1931    25    42 1224   474   4930
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    16   62    29   848   52   109   118 1931    25    42 1224   474   4930

#111 BAYSIDE DR/COAST HWY
Base    316    7    37    17    8    36    47 2223   350    56 1493    16   4606
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   316    7    37    17    8    36    47 2223   350    56 1493    16   4606

#112 JAMBOREE RD/COAST HWY
Base     25  354   101   144  229   617   859 1560    20   100  953    77   5039
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    25  354   101   144  229   617   859 1560    20   100  953    77   5039
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      STATE HIGHWAY - EXISTING CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #106 NEWPORT BLVD/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.811
Loss Time (sec):       6                Average Delay (sec/veh):        15.6
Optimal Cycle:        61                Level Of Service:                  B
********************************************************************************
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       Protected        Protected
Rights:           Include          Include          Ignore           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  0  0  0    2  0  0  0  1    0  0  2  0  1    0  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0   387    0   291     0 2103   190     0  820   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:    0    0     0   387    0   291     0 2103   190     0  820   352
User 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
PHF 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
PHF Volume:     0    0     0   387    0   291     0 2103     0     0  820     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0   387    0   291     0 2103     0     0  820     0
PCE 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
MLF 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
FinalVolume:    0    0     0   387    0   291     0 2103     0     0  820     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 1.00  1.00  0.92 1.00  0.85  1.00 0.95  1.00  1.00 0.91  1.00
Lanes:       0.00 0.00  0.00  2.00 0.00  1.00  0.00 2.00  1.00  0.00 3.00  1.00
Final Sat.:     0    0     0  3502    0  1615     0 3610  1900     0 5187  1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.11 0.00  0.18  0.00 0.58  0.00  0.00 0.16  0.00
Crit Moves:                              ****       ****        ****
Green/Cycle: 0.00 0.00  0.00  0.22 0.00  0.22  0.00 0.72  0.00  0.00 0.72  0.00
Volume/Cap:  0.00 0.00  0.00  0.50 0.00  0.81  0.00 0.81  0.00  0.00 0.22  0.00
Delay/Veh:    0.0  0.0   0.0  34.5  0.0  50.0   0.0 11.6   0.0   0.0  4.8   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  0.0   0.0  34.5  0.0  50.0   0.0 11.6   0.0   0.0  4.8   0.0
LOS by Move:    A    A     A     C    A     D     A    B     A     A    A     A
HCM2kAvgQ:      0    0     0     6    0    11     0   25     0     0    3     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      STATE HIGHWAY - EXISTING CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #107 RIVERSIDE AVE/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.638
Loss Time (sec):       6                Average Delay (sec/veh):        12.3
Optimal Cycle:        36                Level Of Service:                  B
********************************************************************************
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       Protected        Protected
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:        0  0  0  0  1    0  1  0  0  1    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     1    78    4   307   315 1912     4    17 1135    68
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     1    78    4   307   315 1912     4    17 1135    68
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:     0    0     1    78    4   307   315 1912     4    17 1135    68
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     1    78    4   307   315 1912     4    17 1135    68
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     1    78    4   307   315 1912     4    17 1135    68
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 1.00  0.87  0.73 0.73  0.85  0.95 0.95  0.95  0.95 0.91  0.85
Lanes:       0.00 0.00  1.00  0.95 0.05  1.00  1.00 1.99  0.01  1.00 3.00  1.00
Final Sat.:     0    0  1644  1310   67  1615  1805 3602     8  1805 5187  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.06 0.06  0.19  0.17 0.53  0.53  0.01 0.22  0.04
Crit Moves:                        ****             ****        ****
Green/Cycle: 0.00 0.00  0.09  0.09 0.09  0.47  0.38 0.83  0.83  0.01 0.47  0.47
Volume/Cap:  0.00 0.00  0.01  0.64 0.64  0.41  0.46 0.64  0.64  0.64 0.46  0.09
Delay/Veh:    0.0  0.0  41.1  53.9 53.9  17.8  24.1  3.5   3.5  90.8 18.1  14.7
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:   0.0  0.0  41.1  53.9 53.9  17.8  24.1  3.5   3.5  90.8 18.1  14.7
LOS by Move:    A    A     D     D    D     B     C    A     A     F    B     B
HCM2kAvgQ:      0    0     0     4    4     6     7   12    12     1    8     1
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      STATE HIGHWAY - EXISTING CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #108 TUSTIN AVE/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):          0.625
Loss Time (sec):       6                Average Delay (sec/veh):          3.4
Optimal Cycle:        35                Level Of Service:                   A
********************************************************************************
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         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  1! 0  0    0  0  1! 0  0    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0    33    1    14    42 2012     1     1 1232    35
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    33    1    14    42 2012     1     1 1232    35
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:     0    0     0    33    1    14    42 2012     1     1 1232    35
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0    33    1    14    42 2012     1     1 1232    35
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    33    1    14    42 2012     1     1 1232    35
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 1.00  1.00  0.87 0.87  0.87  0.95 0.95  0.95  0.95 0.91  0.85
Lanes:       0.00 1.00  0.00  0.69 0.02  0.29  1.00 1.99  0.01  1.00 3.00  1.00
Final Sat.:     0 1900     0  1139   35   483  1805 3608     2  1805 5187  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.03 0.03  0.03  0.02 0.56  0.56  0.00 0.24  0.02
Crit Moves:                        ****             ****        ****
Green/Cycle: 0.00 0.00  0.00  0.05 0.05  0.05  0.08 0.89  0.89  0.00 0.81  0.81
Volume/Cap:  0.00 0.00  0.00  0.62 0.62  0.62  0.29 0.62  0.62  0.62 0.29  0.03
Delay/Veh:    0.0  0.0   0.0  61.8 61.8  61.8  44.5  1.7   1.7 339.2  2.3   1.8
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:   0.0  0.0   0.0  61.8 61.8  61.8  44.5  1.7   1.7 339.2  2.3   1.8
LOS by Move:    A    A     A     E    E     E     D    A     A     F    A     A
HCM2kAvgQ:      0    0     0     3    3     3     1    8     8     0    3     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      STATE HIGHWAY - EXISTING CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #109 BALBOA BAY DRIVEWAY/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):          0.628
Loss Time (sec):       6                Average Delay (sec/veh):          4.5
Optimal Cycle:        35                Level Of Service:                   A
********************************************************************************
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         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  1! 0  0    0  0  1! 0  0    1  0  2  0  1    1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      26    0    26     1    3     1     5 1882    39    60 1405    11
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:   26    0    26     1    3     1     5 1882    39    60 1405    11
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:    26    0    26     1    3     1     5 1882    39    60 1405    11
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   26    0    26     1    3     1     5 1882    39    60 1405    11
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:   26    0    26     1    3     1     5 1882    39    60 1405    11
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.78 1.00  0.78  0.93 0.93  0.93  0.95 0.95  0.85  0.95 0.95  0.95
Lanes:       0.50 0.00  0.50  0.20 0.60  0.20  1.00 2.00  1.00  1.00 1.98  0.02
Final Sat.:   737    0   737   352 1057   352  1805 3610  1615  1805 3578    28
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.00  0.04  0.00 0.00  0.00  0.00 0.52  0.02  0.03 0.39  0.39
Crit Moves:  ****                                   ****        ****
Green/Cycle: 0.06 0.00  0.06  0.06 0.06  0.06  0.01 0.83  0.83  0.05 0.88  0.88
Volume/Cap:  0.63 0.00  0.63  0.05 0.05  0.05  0.45 0.63  0.03  0.63 0.45  0.45
Delay/Veh:   60.5  0.0  60.5  44.9 44.9  44.9  75.5  3.4   1.5  58.9  1.3   1.3
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:  60.5  0.0  60.5  44.9 44.9  44.9  75.5  3.4   1.5  58.9  1.3   1.3
LOS by Move:    E    A     E     D    D     D     E    A     A     E    A     A
HCM2kAvgQ:      3    0     3     0    0     0     1   11     0     3    5     5
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      STATE HIGHWAY - EXISTING CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #110 DOVER DR - BAY SHORE DR/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.640
Loss Time (sec):       8                Average Delay (sec/veh):        20.6
Optimal Cycle:        42                Level Of Service:                  C
********************************************************************************
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       Protected        Protected
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:        1  0  1  1  0    3  0  1  0  1    2  0  2  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      16   62    29   848   52   109   118 1931    25    42 1224   474
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:   16   62    29   848   52   109   118 1931    25    42 1224   474
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:    16   62    29   848   52   109   118 1931    25    42 1224     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   16   62    29   848   52   109   118 1931    25    42 1224     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:   16   62    29   848   52   109   118 1931    25    42 1224     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.95 0.90  0.90  0.92 1.00  0.85  0.92 0.91  0.91  0.95 0.91  1.00
Lanes:       1.00 1.36  0.64  3.00 1.00  1.00  2.00 2.96  0.04  1.00 3.00  1.00
Final Sat.:  1805 2342  1095  5253 1900  1615  3502 5110    66  1805 5187  1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.03  0.03  0.16 0.03  0.07  0.03 0.38  0.38  0.02 0.24  0.00
Crit Moves:             ****  ****                  ****        ****
Green/Cycle: 0.04 0.04  0.04  0.25 0.25  0.25  0.08 0.59  0.59  0.04 0.55  0.00
Volume/Cap:  0.21 0.64  0.64  0.64 0.11  0.27  0.43 0.64  0.64  0.64 0.43  0.00
Delay/Veh:   47.8 56.7  56.7  34.4 28.9  30.3  45.0 14.0  14.0  66.9 13.5   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:  47.8 56.7  56.7  34.4 28.9  30.3  45.0 14.0  14.0  66.9 13.5   0.0
LOS by Move:    D    E     E     C    C     C     D    B     B     E    B     A
HCM2kAvgQ:      1    3     3     9    1     3     2   15    15     1    8     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      STATE HIGHWAY - EXISTING CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #111 BAYSIDE DR/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.621
Loss Time (sec):       8                Average Delay (sec/veh):        12.2
Optimal Cycle:        40                Level Of Service:                  B
********************************************************************************
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       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:        2  0  1! 0  0    1  0  0  1  0    1  0  3  0  1    1  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     316    7    37    17    8    36    47 2223   350    56 1493    16
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:  316    7    37    17    8    36    47 2223   350    56 1493    16
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:   316    7    37    17    8    36    47 2223   350    56 1493    16
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  316    7    37    17    8    36    47 2223   350    56 1493    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:  316    7    37    17    8    36    47 2223   350    56 1493    16
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 0.94  0.94  0.95 0.88  0.88  0.95 0.91  0.85  0.95 0.91  0.85
Lanes:       2.71 0.05  0.24  1.00 0.18  0.82  1.00 3.00  1.00  1.00 4.00  1.00
Final Sat.:  4716   82   435  1805  303  1363  1805 5187  1615  1805 6916  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.07 0.09  0.09  0.01 0.03  0.03  0.03 0.43  0.22  0.03 0.22  0.01
Crit Moves:             ****             ****       ****        ****
Green/Cycle: 0.14 0.14  0.14  0.04 0.04  0.04  0.08 0.69  0.69  0.05 0.66  0.66
Volume/Cap:  0.49 0.62  0.62  0.22 0.62  0.62  0.33 0.62  0.31  0.62 0.33  0.01
Delay/Veh:   40.4 42.8  42.8  47.7 62.8  62.8  44.8  8.7   6.3  59.1  7.4   5.8
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:  40.4 42.8  42.8  47.7 62.8  62.8  44.8  8.7   6.3  59.1  7.4   5.8
LOS by Move:    D    D     D     D    E     E     D    A     A     E    A     A
HCM2kAvgQ:      4    5     5     1    2     2     1   13     4     2    5     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      STATE HIGHWAY - EXISTING CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #112 JAMBOREE RD/COAST HWY
********************************************************************************
Cycle (sec):         100               Critical Vol./Cap.(X):         0.556
Loss Time (sec):       8               Average Delay (sec/veh):        27.3
Optimal Cycle:        35               Level Of Service:                  C
********************************************************************************
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          Ignore           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:        1  0  1  1  0    1  0  2  0  1    3  0  3  1  0    2  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      25  354   101   144  229   617   859 1560    20   100  953    77
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:   25  354   101   144  229   617   859 1560    20   100  953    77
User Adj:    1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Volume:    25  354   101   144  229     0   859 1560    20   100  953     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   25  354   101   144  229     0   859 1560    20   100  953     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  0.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
FinalVolume:   25  354   101   144  229     0   859 1560    20   100  953     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.95 0.92  0.92  0.95 0.95  1.00  0.92 0.91  0.91  0.92 0.91  1.00
Lanes:       1.00 1.56  0.44  1.00 2.00  1.00  3.00 3.95  0.05  2.00 4.00  1.00
Final Sat.:  1805 2716   775  1805 3610  1900  5253 6815    87  3502 6916  1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.13  0.13  0.08 0.06  0.00  0.16 0.23  0.23  0.03 0.14  0.00
Crit Moves:       ****        ****              ****                   ****
Green/Cycle: 0.07 0.23  0.23  0.14 0.31  0.00  0.29 0.48  0.48  0.06 0.25  0.00
Volume/Cap:  0.20 0.56  0.56  0.56 0.20  0.00  0.56 0.48  0.48  0.48 0.56  0.00
Delay/Veh:   44.9 34.5  34.5  42.5 25.5   0.0  30.2 17.5  17.5  47.2 33.2   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:  44.9 34.5  34.5  42.5 25.5   0.0  30.2 17.5  17.5  47.2 33.2   0.0
LOS by Move:    D    C     C     D    C     A     C    B     B     D    C     A
HCM2kAvgQ:      1    7     7     5    3     0     7    9     9     2    8     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      STATE HIGHWAY - EXISTING CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                            Turning Movement Report
                                     NONE

Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume

#101 IRVINE AVE/DOVER DR
Base     90  743     3   213 1218    79    63  129    68    37  149   256   3048
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    90  743     3   213 1218    79    63  129    68    37  149   256   3048

#102 IRVINE AVE/17TH ST
Base    303  435    48   143  521   336   310  577   233    98  671    66   3741
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   303  435    48   143  521   336   310  577   233    98  671    66   3741

#103 DOVER DR/WESTCLIFF DR
Base    586  569     0     0  312    63   115    0   547     0    0     0   2192
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   586  569     0     0  312    63   115    0   547     0    0     0   2192

#104 DOVER DR/16TH ST
Base    123 1040    38    63  897    20    21   23   121    21   11    51   2429
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   123 1040    38    63  897    20    21   23   121    21   11    51   2429

#105 DOVER DR/CLIFF DR
Base    124 1204     0     0 1033    61    49    0   116     0    0     0   2587
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   124 1204     0     0 1033    61    49    0   116     0    0     0   2587

#106 NEWPORT BLVD/COAST HWY
Base      0    0     0   592    0   397     0 1274   161     0 1841   492   4757
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total     0    0     0   592    0   397     0 1274   161     0 1841   492   4757

#107 RIVERSIDE AVE/COAST HWY
Base     10   11     2    99    2   408   246 1387     5    11 2177    71   4429
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    10   11     2    99    2   408   246 1387     5    11 2177    71   4429

#108 TUSTIN AVE/COAST HWY
Base      0    1     2    56    0    27    95 1390    20     0 2252    53   3896
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total     0    1     2    56    0    27    95 1390    20     0 2252    53   3896

#109 BALBOA BAY DRIVEWAY/COAST HWY
Base     32    0    36     9    0    12     4 1731    33    43 2046    13   3959
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    32    0    36     9    0    12     4 1731    33    43 2046    13   3959
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      STATE HIGHWAY - EXISTING CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume


#110 DOVER DR - BAY SHORE DR/COAST HWY
Base     35   42    41   927   62   120   146 1283    25    51 2175  1031   5938
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    35   42    41   927   62   120   146 1283    25    51 2175  1031   5938

#111 BAYSIDE DR/COAST HWY
Base    300    9    37    16    9    42    44 1968   390    85 2810    40   5750
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total   300    9    37    16    9    42    44 1968   390    85 2810    40   5750

#112 JAMBOREE RD/COAST HWY
Base     34  244    84   200  431  1181   743 1277    19   197 1896   145   6451
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total    34  244    84   200  431  1181   743 1277    19   197 1896   145   6451
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      STATE HIGHWAY - EXISTING CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #106 NEWPORT BLVD/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.639
Loss Time (sec):       6                Average Delay (sec/veh):        18.0
Optimal Cycle:        36                Level Of Service:                  B
********************************************************************************
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       Protected        Protected
Rights:           Include          Include          Ignore           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  0  0  0    2  0  0  0  1    0  0  2  0  1    0  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0   592    0   397     0 1274   161     0 1841   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    0     0   592    0   397     0 1274   161     0 1841   492
User 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
PHF 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
PHF Volume:     0    0     0   592    0   397     0 1274     0     0 1841     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0   592    0   397     0 1274     0     0 1841     0
PCE 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
MLF 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
FinalVolume:    0    0     0   592    0   397     0 1274     0     0 1841     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 1.00  1.00  0.92 1.00  0.85  1.00 0.95  1.00  1.00 0.91  1.00
Lanes:       0.00 0.00  0.00  2.00 0.00  1.00  0.00 2.00  1.00  0.00 3.00  1.00
Final Sat.:     0    0     0  3502    0  1615     0 3610  1900     0 5187  1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.17 0.00  0.25  0.00 0.35  0.00  0.00 0.35  0.00
Crit Moves:                              ****  ****                  ****
Green/Cycle: 0.00 0.00  0.00  0.38 0.00  0.38  0.00 0.56  0.00  0.00 0.56  0.00
Volume/Cap:  0.00 0.00  0.00  0.44 0.00  0.64  0.00 0.64  0.00  0.00 0.64  0.00
Delay/Veh:    0.0  0.0   0.0  23.0  0.0  27.3   0.0 16.0   0.0   0.0 15.8   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  0.0   0.0  23.0  0.0  27.3   0.0 16.0   0.0   0.0 15.8   0.0
LOS by Move:    A    A     A     C    A     C     A    B     A     A    B     A
HCM2kAvgQ:      0    0     0     7    0    11     0   14     0     0   15     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      STATE HIGHWAY - EXISTING CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #107 RIVERSIDE AVE/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.715
Loss Time (sec):       6                Average Delay (sec/veh):        16.0
Optimal Cycle:        44                Level Of Service:                  B
********************************************************************************
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       Protected        Protected
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:        0  0  1! 0  0    0  1  0  0  1    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10   11     2    99    2   408   246 1387     5    11 2177    71
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   11     2    99    2   408   246 1387     5    11 2177    71
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:    10   11     2    99    2   408   246 1387     5    11 2177    71
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   10   11     2    99    2   408   246 1387     5    11 2177    71
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   11     2    99    2   408   246 1387     5    11 2177    71
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.91 0.91  0.91  0.73 0.73  0.85  0.95 0.95  0.95  0.95 0.91  0.85
Lanes:       0.43 0.48  0.09  0.98 0.02  1.00  1.00 1.99  0.01  1.00 3.00  1.00
Final Sat.:   750  825   150  1360   27  1615  1805 3593    13  1805 5187  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.01  0.01  0.07 0.07  0.25  0.14 0.39  0.39  0.01 0.42  0.04
Crit Moves:                              ****  ****                  ****
Green/Cycle: 0.16 0.16  0.16  0.16 0.16  0.35  0.19 0.77  0.77  0.01 0.59  0.59
Volume/Cap:  0.08 0.08  0.08  0.45 0.45  0.72  0.72 0.50  0.50  0.50 0.72  0.07
Delay/Veh:   35.7 35.7  35.7  39.2 39.2  32.3  44.9  4.6   4.6  66.8 15.5   9.0
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:  35.7 35.7  35.7  39.2 39.2  32.3  44.9  4.6   4.6  66.8 15.5   9.0
LOS by Move:    D    D     D     D    D     C     D    A     A     E    B     A
HCM2kAvgQ:      1    1     1     3    3    12     9    9     9     0   17     1
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      STATE HIGHWAY - EXISTING CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #108 TUSTIN AVE/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.579
Loss Time (sec):       6                Average Delay (sec/veh):         6.4
Optimal Cycle:        32                Level Of Service:                  A
********************************************************************************
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       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  1  0    0  0  1! 0  0    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    1     2    56    0    27    95 1390    20     0 2252    53
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    1     2    56    0    27    95 1390    20     0 2252    53
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:     0    1     2    56    0    27    95 1390    20     0 2252    53
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    1     2    56    0    27    95 1390    20     0 2252    53
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    1     2    56    0    27    95 1390    20     0 2252    53
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 0.91  0.91  0.76 1.00  0.76  0.95 0.95  0.95  1.00 0.91  0.85
Lanes:       0.00 0.33  0.67  0.67 0.00  0.33  1.00 1.97  0.03  1.00 3.00  1.00
Final Sat.:     0  576  1153   977    0   471  1805 3552    51  1900 5187  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.06 0.00  0.06  0.05 0.39  0.39  0.00 0.43  0.03
Crit Moves:                   ****             ****                  ****
Green/Cycle: 0.00 0.10  0.10  0.10 0.00  0.10  0.09 0.84  0.84  0.00 0.75  0.75
Volume/Cap:  0.00 0.02  0.02  0.58 0.00  0.58  0.58 0.47  0.47  0.00 0.58  0.04
Delay/Veh:    0.0 40.7  40.7  48.9  0.0  48.9  48.7  2.2   2.2   0.0  5.7   3.2
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 40.7  40.7  48.9  0.0  48.9  48.7  2.2   2.2   0.0  5.7   3.2
LOS by Move:    A    D     D     D    A     D     D    A     A     A    A     A
HCM2kAvgQ:      0    0     0     3    0     3     3    6     6     0   11     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      STATE HIGHWAY - EXISTING CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #109 BALBOA BAY DRIVEWAY/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.658
Loss Time (sec):       6                Average Delay (sec/veh):         4.8
Optimal Cycle:        38                Level Of Service:                  A
********************************************************************************
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       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  1! 0  0    0  0  1! 0  0    1  0  2  0  1    1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      32    0    36     9    0    12     4 1731    33    43 2046    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:   32    0    36     9    0    12     4 1731    33    43 2046    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:     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:    32    0    36     9    0    12     4 1731    33    43 2046    13
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   32    0    36     9    0    12     4 1731    33    43 2046    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:   32    0    36     9    0    12     4 1731    33    43 2046    13
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.80 1.00  0.80  0.79 1.00  0.79  0.95 0.95  0.85  0.95 0.95  0.95
Lanes:       0.47 0.00  0.53  0.43 0.00  0.57  1.00 2.00  1.00  1.00 1.99  0.01
Final Sat.:   712    0   801   640    0   854  1805 3610  1615  1805 3584    23
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.00  0.04  0.01 0.00  0.01  0.00 0.48  0.02  0.02 0.57  0.57
Crit Moves:  ****                              ****                  ****
Green/Cycle: 0.07 0.00  0.07  0.07 0.00  0.07  0.00 0.83  0.83  0.04 0.87  0.87
Volume/Cap:  0.66 0.00  0.66  0.21 0.00  0.21  0.66 0.58  0.02  0.58 0.66  0.66
Delay/Veh:   59.9  0.0  59.9  45.0  0.0  45.0 190.1  3.0   1.5  57.8  2.5   2.5
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:  59.9  0.0  59.9  45.0  0.0  45.0 190.1  3.0   1.5  57.8  2.5   2.5
LOS by Move:    E    A     E     D    A     D     F    A     A     E    A     A
HCM2kAvgQ:      3    0     3     1    0     1     1   10     0     2   11    11
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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--------------------------------------------------------------------------------
                           MARINERS POINTE - 10-107807
                       STATE HIGHWAY - EXISTING CONDITIONS
                                  PM PEAK HOUR
--------------------------------------------------------------------------------

                        Level Of Service Computation Report
               2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #110 DOVER DR - BAY SHORE DR/COAST HWY
********************************************************************************
Cycle (sec):          100                Critical Vol./Cap.(X):         0.720
Loss Time (sec):        8                Average Delay (sec/veh):        22.1
Optimal Cycle:         51                Level Of Service:                  C
********************************************************************************
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       Protected        Protected
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:         1  0  1  1  0   3  0  1  0  1   2  0  2  1  0   1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       35   42   41   927   62  120   146 1283   25    51 2175 1031
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   42   41   927   62  120   146 1283   25    51 2175 1031
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:     35   42   41   927   62  120   146 1283   25    51 2175    0
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    35   42   41   927   62  120   146 1283   25    51 2175    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:    35   42   41   927   62  120   146 1283   25    51 2175    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:   0.95 0.88 0.88  0.92 1.00 0.85  0.92 0.91 0.91  0.95 0.91 1.00
Lanes:        1.00 1.01 0.99  3.00 1.00 1.00  2.00 2.94 0.06  1.00 3.00 1.00
Final Sat.:   1805 1692 1651  5253 1900 1615  3502 5073   99  1805 5187 1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.02 0.02 0.02  0.18 0.03 0.07  0.04 0.25 0.25  0.03 0.42 0.00
Crit Moves:        ****       ****            ****                  ****
Green/Cycle:  0.03 0.03 0.03  0.25 0.25 0.25  0.06 0.58 0.58  0.06 0.58 0.00
Volume/Cap:   0.56 0.72 0.72  0.72 0.13 0.30  0.72 0.44 0.44  0.44 0.72 0.00
Delay/Veh:    58.8 67.5 67.5  36.6 29.6 31.2  58.2 12.1 12.1  47.7 15.9  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:   58.8 67.5 67.5  36.6 29.6 31.2  58.2 12.1 12.1  47.7 15.9  0.0
LOS by Move:     E    E    E     D    C    C     E    B    B     D    B    A
HCM2kAvgQ:       2    3    3    10    1    3     4    8    8     1   17    0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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--------------------------------------------------------------------------------
                           MARINERS POINTE - 10-107807
                       STATE HIGHWAY - EXISTING CONDITIONS
                                  PM PEAK HOUR
--------------------------------------------------------------------------------

                        Level Of Service Computation Report
               2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #111 BAYSIDE DR/COAST HWY
********************************************************************************
Cycle (sec):          100                Critical Vol./Cap.(X):         0.587
Loss Time (sec):        8                Average Delay (sec/veh):        12.6
Optimal Cycle:         37                Level Of Service:                  B
********************************************************************************
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       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:         2  0  1! 0  0   1  0  0  1  0   1  0  3  0  1   1  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      300    9   37    16    9   42    44 1968  390    85 2810   40
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:   300    9   37    16    9   42    44 1968  390    85 2810   40
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:    300    9   37    16    9   42    44 1968  390    85 2810   40
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   300    9   37    16    9   42    44 1968  390    85 2810   40
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:   300    9   37    16    9   42    44 1968  390    85 2810   40
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:   0.91 0.94 0.94  0.95 0.88 0.88  0.95 0.91 0.85  0.95 0.91 0.85
Lanes:        2.69 0.06 0.25  1.00 0.18 0.82  1.00 3.00 1.00  1.00 4.00 1.00
Final Sat.:   4676  108  444  1805  294 1371  1805 5187 1615  1805 6916 1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.06 0.08 0.08  0.01 0.03 0.03  0.02 0.38 0.24  0.05 0.41 0.02
Crit Moves:        ****                 ****       ****       ****
Green/Cycle:  0.14 0.14 0.14  0.05 0.05 0.05  0.04 0.65 0.65  0.08 0.69 0.69
Volume/Cap:   0.45 0.59 0.59  0.17 0.59 0.59  0.59 0.59 0.37  0.59 0.59 0.04
Delay/Veh:    39.8 41.7 41.7  46.2 56.4 56.4  59.4 10.4  8.5  50.6  8.6  5.1
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:   39.8 41.7 41.7  46.2 56.4 56.4  59.4 10.4  8.5  50.6  8.6  5.1
LOS by Move:     D    D    D     D    E    E     E    B    A     D    A    A
HCM2kAvgQ:       4    5    5     1    3    3     1   12    5     2   12    0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
                      STATE HIGHWAY - EXISTING CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #112 JAMBOREE RD/COAST HWY
********************************************************************************
Cycle (sec):        100                Critical Vol./Cap.(X):        0.675
Loss Time (sec):      8                Average Delay (sec/veh):       28.2
Optimal Cycle:       45                Level Of Service:                 C
********************************************************************************
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          Ignore           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:        1  0  1  1  0    1  0  2  0  1    3  0  3  1  0    2  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      34  244    84   200  431  1181   743 1277    19   197 1896   145
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:   34  244    84   200  431  1181   743 1277    19   197 1896   145
User Adj:    1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Volume:    34  244    84   200  431     0   743 1277    19   197 1896     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   34  244    84   200  431     0   743 1277    19   197 1896     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  0.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
FinalVolume:   34  244    84   200  431     0   743 1277    19   197 1896     0
------------|---------------||---------------||---------------||---------------|
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 0.95  1.00  0.92 0.91  0.91  0.92 0.91  1.00
Lanes:       1.00 1.49  0.51  1.00 2.00  1.00  3.00 3.94  0.06  2.00 4.00  1.00
Final Sat.:  1805 2583   889  1805 3610  1900  5253 6801   101  3502 6916  1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.09  0.09  0.11 0.12  0.00  0.14 0.19  0.19  0.06 0.27  0.00
Crit Moves:       ****        ****             ****                  ****
Green/Cycle: 0.04 0.14  0.14  0.16 0.26  0.00  0.21 0.47  0.47  0.14 0.41  0.00
Volume/Cap:  0.45 0.67  0.67  0.67 0.45  0.00  0.67 0.40  0.40  0.40 0.67  0.00
Delay/Veh:   51.2 44.6  44.6  45.3 31.2   0.0  38.1 17.1  17.1  39.5 24.9   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:  51.2 44.6  44.6  45.3 31.2   0.0  38.1 17.1  17.1  39.5 24.9   0.0
LOS by Move:    D    D     D     D    C     A     D    B     B     D    C     A
HCM2kAvgQ:      2    6     6     7    6     0     7    7     7     3   14     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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State Highway - Forecast Existing Plus Project Conditions

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
           STATE HIGHWAY - FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                            Turning Movement Report
                                    PROJ-AM

Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume

#101 IRVINE AVE/DOVER DR
Base     74  723    17   190  637    32    53  135    58    19  106   256   2300
Added     0    0     0     1    1     0     0    0     0     0    0     0      2
Total    74  723    17   191  638    32    53  135    58    19  106   256   2302

#102 IRVINE AVE/17TH ST
Base    313  530    26   214  435   136   201  478   198    27  307    58   2923
Added     0    0     0     1    0     0     0    1     0     0    0     0      2
Total   313  530    26   215  435   136   201  479   198    27  307    58   2925

#103 DOVER DR/WESTCLIFF DR
Base    343  436     0     0  376    57    83    0   568     0    0     0   1863
Added     0    0     0     0    1     0     0    0     2     0    0     0      3
Total   343  436     0     0  377    57    83    0   570     0    0     0   1866

#104 DOVER DR/16TH ST
Base    118  657    29    38 1000    56    43   19   171    62   13    53   2259
Added     0    1     0     0    3     0     0    0     1     0    0     0      5
Total   118  658    29    38 1003    56    43   19   172    62   13    53   2264

#105 DOVER DR/CLIFF DR
Base    116  693     0     0  963   242   109    0   154     0    0     0   2277
Added     0    1     0     0    4     0     0    0     1     0    0     0      6
Total   116  694     0     0  967   242   109    0   155     0    0     0   2283

#106 NEWPORT BLVD/COAST HWY
Base      0    0     0   387    0   291     0 2103   190     0  820   352   4143
Added     0    0     0     1    0     0     0    1     0     0    0     0      2
Total     0    0     0   388    0   291     0 2104   190     0  820   352   4145

#107 RIVERSIDE AVE/COAST HWY
Base      0    0     1    78    4   307   315 1912     4    17 1135    68   3841
Added     0    0     0     1    0     0     0    4     0     0    1     0      6
Total     0    0     1    79    4   307   315 1916     4    17 1136    68   3847

#108 TUSTIN AVE/COAST HWY
Base      0    0     0    33    1    14    42 2012     1     1 1232    35   3371
Added     0    0     0     0    0     0     0    5     0     0    1     0      6
Total     0    0     0    33    1    14    42 2017     1     1 1233    35   3377

#109 BALBOA BAY DRIVEWAY/COAST HWY
Base     26    0    26     1    3     1     5 1882    39    60 1405    11   3459
Added     0    0     0     0    0     0     0    5     0     2    1     0      8
Total    26    0    26     1    3     1     5 1887    39    62 1406    11   3467
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
           STATE HIGHWAY - FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume


#110 DOVER DR - BAY SHORE DR/COAST HWY
Base     16   62    29   848   52   109   118 1931    25    42 1224   474   4930
Added     0    0     0     0    0     5     6    1     0     0    3     0     15
Total    16   62    29   848   52   114   124 1932    25    42 1227   474   4945

#111 BAYSIDE DR/COAST HWY
Base    316    7    37    17    8    36    47 2223   350    56 1493    16   4606
Added     1    0     0     0    0     0     0    0     0     0    2     0      3
Total   317    7    37    17    8    36    47 2223   350    56 1495    16   4609

#112 JAMBOREE RD/COAST HWY
Base     25  354   101   144  229   617   859 1560    20   100  953    77   5039
Added     0    0     0     0    0     1     0    0     0     0    1     0      2
Total    25  354   101   144  229   618   859 1560    20   100  954    77   5041

#113 DRIVEWAY
Base      0    0     0     0    0     0     0    0     0     0    0     0      0
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total     0    0     0     0    0     0     0    0     0     0    0     0      0

#120
Base      0    0     0     0    0     0     0    0     0     0    0     0      0
Added     0    0     2     0    0     0     0    5     0     0    8     0     15
Total     0    0     2     0    0     0     0    5     0     0    8     0     15
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
           STATE HIGHWAY - FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------

                      Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #106 NEWPORT BLVD/COAST HWY
********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):         0.812
Loss Time (sec):       6              Average Delay (sec/veh):        15.6
Optimal Cycle:        61              Level Of Service:                  B
********************************************************************************
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        Protected        Protected
Rights:           Include          Include          Ignore            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  0  0  0    2  0  0  0  1    0  0  2  0  1    0  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0   387    0   291     0 2103   190     0  820   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:    0    0     0   387    0   291     0 2103   190     0  820   352
Added Vol:      0    0     0     1    0     0     0    1     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0     0   388    0   291     0 2104   190     0  820   352
User 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
PHF 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
PHF Volume:     0    0     0   388    0   291     0 2104     0     0  820     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0   388    0   291     0 2104     0     0  820     0
PCE 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
MLF 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
FinalVolume:    0    0     0   388    0   291     0 2104     0     0  820     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 1.00  1.00  0.92 1.00  0.85  1.00 0.95  1.00  1.00 0.91  1.00
Lanes:       0.00 0.00  0.00  2.00 0.00  1.00  0.00 2.00  1.00  0.00 3.00  1.00
Final Sat.:     0    0     0  3502    0  1615     0 3610  1900     0 5187  1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.11 0.00  0.18  0.00 0.58  0.00  0.00 0.16  0.00
Crit Moves:                               ****       ****        ****
Green/Cycle: 0.00 0.00  0.00  0.22 0.00  0.22  0.00 0.72  0.00  0.00 0.72  0.00
Volume/Cap:  0.00 0.00  0.00  0.50 0.00  0.81  0.00 0.81  0.00  0.00 0.22  0.00
Delay/Veh:    0.0  0.0   0.0  34.5  0.0  50.0   0.0 11.6   0.0   0.0  4.8   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  0.0   0.0  34.5  0.0  50.0   0.0 11.6   0.0   0.0  4.8   0.0
LOS by Move:    A    A     A     C    A     D     A    B     A     A    A     A
HCM2kAvgQ:      0    0     0     6    0    11     0   25     0     0    3     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
           STATE HIGHWAY - FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------

                      Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #107 RIVERSIDE AVE/COAST HWY
********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):         0.640
Loss Time (sec):       6              Average Delay (sec/veh):        12.3
Optimal Cycle:        36              Level Of Service:                  B
********************************************************************************
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        Protected        Protected
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:        0  0  0  0  1    0  1  0  0  1    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     1    78    4   307   315 1912     4    17 1135    68
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     1    78    4   307   315 1912     4    17 1135    68
Added Vol:      0    0     0     1    0     0     0    4     0     0    1     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0     1    79    4   307   315 1916     4    17 1136    68
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:     0    0     1    79    4   307   315 1916     4    17 1136    68
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     1    79    4   307   315 1916     4    17 1136    68
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     1    79    4   307   315 1916     4    17 1136    68
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 1.00  0.87  0.73 0.73  0.85  0.95 0.95  0.95  0.95 0.91  0.85
Lanes:       0.00 0.00  1.00  0.95 0.05  1.00  1.00 1.99  0.01  1.00 3.00  1.00
Final Sat.:     0    0  1644  1311   66  1615  1805 3602     8  1805 5187  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.06 0.06  0.19  0.17 0.53  0.53  0.01 0.22  0.04
Crit Moves:                        ****              ****        ****
Green/Cycle: 0.00 0.00  0.09  0.09 0.09  0.47  0.38 0.83  0.83  0.01 0.47  0.47
Volume/Cap:  0.00 0.00  0.01  0.64 0.64  0.41  0.47 0.64  0.64  0.64 0.47  0.09
Delay/Veh:    0.0  0.0  41.1  54.0 54.0  17.7  24.2  3.5   3.5  91.4 18.1  14.7
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:   0.0  0.0  41.1  54.0 54.0  17.7  24.2  3.5   3.5  91.4 18.1  14.7
LOS by Move:    A    A     D     D    D     B     C    A     A     F    B     B
HCM2kAvgQ:      0    0     0     4    4     6     7   12    12     1    8     1
********************************************************************************
Note: Queue reported is the number of cars per lane.
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
           STATE HIGHWAY - FORECAST EXISTING PLUS PROJECT CONDITIONS
                                  AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #108 TUSTIN AVE/COAST HWY
********************************************************************************
Cycle (sec):        100                Critical Vol./Cap.(X):        0.626
Loss Time (sec):      6                Average Delay (sec/veh):        3.4
Optimal Cycle:       35                Level Of Service:                 A
********************************************************************************
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        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  1! 0  0    0  0  1! 0  0    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0    0   33    1   14   42 2012    1    1 1232   35
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   33    1   14   42 2012    1    1 1232   35
Added Vol:      0    0    0    0    0    0    0    5    0    0    1    0
PasserByVol:    0    0    0    0    0    0    0    0    0    0    0    0
Initial Fut:    0    0    0   33    1   14   42 2017    1    1 1233   35
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:     0    0    0   33    1   14   42 2017    1    1 1233   35
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:    0    0    0   33    1   14   42 2017    1    1 1233   35
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   33    1   14   42 2017    1    1 1233   35
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  1.00 1.00 1.00 0.87 0.87 0.87 0.95 0.95 0.95 0.95 0.91 0.85
Lanes:       0.00 1.00 0.00 0.69 0.02 0.29 1.00 1.99 0.01 1.00 3.00 1.00
Final Sat.:     0 1900    0 1139   35  483 1805 3608    2 1805 5187 1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00 0.00 0.03 0.03 0.03 0.02 0.56 0.56 0.00 0.24 0.02
Crit Moves:                      ****           ****      ****
Green/Cycle: 0.00 0.00 0.00 0.05 0.05 0.05 0.08 0.89 0.89 0.00 0.81 0.81
Volume/Cap:  0.00 0.00 0.00 0.63 0.63 0.63 0.29 0.63 0.63 0.63 0.29 0.03
Delay/Veh:    0.0  0.0  0.0 62.0 62.0 62.0 44.5  1.7  1.7 341.3  2.3  1.8
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:   0.0  0.0  0.0 62.0 62.0 62.0 44.5  1.7  1.7 341.3  2.3  1.8
LOS by Move:    A    A    A    E    E    E    D    A    A    F    A    A
HCM2kAvgQ:      0    0    0    3    3    3    1    8    8    0    3    0
********************************************************************************
Note: Queue reported is the number of cars per lane.
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
           STATE HIGHWAY - FORECAST EXISTING PLUS PROJECT CONDITIONS
                                  AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #109 BALBOA BAY DRIVEWAY/COAST HWY
********************************************************************************
Cycle (sec):        100                Critical Vol./Cap.(X):        0.630
Loss Time (sec):      6                Average Delay (sec/veh):        4.6
Optimal Cycle:       35                Level Of Service:                 A
********************************************************************************
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        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  1! 0  0    0  0  1! 0  0    1  0  2  0  1    1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      26    0   26    1    3    1    5 1882   39   60 1405   11
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:   26    0   26    1    3    1    5 1882   39   60 1405   11
Added Vol:      0    0    0    0    0    0    0    5    0    2    1    0
PasserByVol:    0    0    0    0    0    0    0    0    0    0    0    0
Initial Fut:   26    0   26    1    3    1    5 1887   39   62 1406   11
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:    26    0   26    1    3    1    5 1887   39   62 1406   11
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   26    0   26    1    3    1    5 1887   39   62 1406   11
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:   26    0   26    1    3    1    5 1887   39   62 1406   11
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.78 1.00 0.78 0.93 0.93 0.93 0.95 0.95 0.85 0.95 0.95 0.95
Lanes:       0.50 0.00 0.50 0.20 0.60 0.20 1.00 2.00 1.00 1.00 1.98 0.02
Final Sat.:   737    0  737  352 1056  352 1805 3610 1615 1805 3578   28
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.00 0.04 0.00 0.00 0.00 0.00 0.52 0.02 0.03 0.39 0.39
Crit Moves:  ****                                ****      ****
Green/Cycle: 0.06 0.00 0.06 0.06 0.06 0.06 0.01 0.83 0.83 0.05 0.88 0.88
Volume/Cap:  0.63 0.00 0.63 0.05 0.05 0.05 0.45 0.63 0.03 0.63 0.45 0.45
Delay/Veh:   60.8  0.0 60.8 44.9 44.9 44.9 75.5  3.5  1.5 58.7  1.3  1.3
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:  60.8  0.0 60.8 44.9 44.9 44.9 75.5  3.5  1.5 58.7  1.3  1.3
LOS by Move:    E    A    E    D    D    D    E    A    A    E    A    A
HCM2kAvgQ:      3    0    3    0    0    0    1   12    0    3    5    5
********************************************************************************
Note: Queue reported is the number of cars per lane.
```

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--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
           STATE HIGHWAY - FORECAST EXISTING PLUS PROJECT CONDITIONS
                                AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #110 DOVER DR - BAY SHORE DR/COAST HWY
********************************************************************************
Cycle (sec):        100              Critical Vol./Cap.(X):        0.640
Loss Time (sec):      8              Average Delay (sec/veh):       20.7
Optimal Cycle:       42              Level Of Service:                 C
********************************************************************************
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       Protected        Protected
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:         1  0  1  1  0    3  0  1  0  1    2  0  2  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      16   62    29   848   52   109   118 1931    25    42 1224   474
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:   16   62    29   848   52   109   118 1931    25    42 1224   474
Added Vol:      0    0     0     0    0     5     6    1     0     0    3     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   16   62    29   848   52   114   124 1932    25    42 1227   474
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:    16   62    29   848   52   114   124 1932    25    42 1227     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   16   62    29   848   52   114   124 1932    25    42 1227     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:   16   62    29   848   52   114   124 1932    25    42 1227     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.95 0.90  0.90  0.92 1.00  0.85  0.92 0.91  0.91  0.95 0.91  1.00
Lanes:       1.00 1.36  0.64  3.00 1.00  1.00  2.00 2.96  0.04  1.00 3.00  1.00
Final Sat.:  1805 2342  1095  5253 1900  1615  3502 5110    66  1805 5187  1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.03  0.03  0.16 0.03  0.07  0.04 0.38  0.38  0.02 0.24  0.00
Crit Moves:             ****  ****                  ****        ****
Green/Cycle: 0.04 0.04  0.04  0.25 0.25  0.25  0.08 0.59  0.59  0.04 0.55  0.00
Volume/Cap:  0.21 0.64  0.64  0.64 0.11  0.28  0.43 0.64  0.64  0.64 0.43  0.00
Delay/Veh:   47.8 56.7  56.7  34.4 28.9  30.5  44.8 14.0  14.0  67.0 13.7   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:  47.8 56.7  56.7  34.4 28.9  30.5  44.8 14.0  14.0  67.0 13.7   0.0
LOS by Move:    D    E     E     C    C     C     D    B     B     E    B     A
HCM2kAvgQ:      1    3     3     9    1     3     2   15    15     1    8     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
```

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--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
           STATE HIGHWAY - FORECAST EXISTING PLUS PROJECT CONDITIONS
                                AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #111 BAYSIDE DR/COAST HWY
********************************************************************************
Cycle (sec):        100              Critical Vol./Cap.(X):        0.621
Loss Time (sec):      8              Average Delay (sec/veh):       12.3
Optimal Cycle:       40              Level Of Service:                 B
********************************************************************************
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       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:         2  0  1! 0  0    1  0  0  1  0    1  0  3  0  1    1  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     316    7    37    17    8    36    47 2223   350    56 1493    16
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:  316    7    37    17    8    36    47 2223   350    56 1493    16
Added Vol:      1    0     0     0    0     0     0    0     0     0    2     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  317    7    37    17    8    36    47 2223   350    56 1495    16
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:   317    7    37    17    8    36    47 2223   350    56 1495    16
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  317    7    37    17    8    36    47 2223   350    56 1495    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:  317    7    37    17    8    36    47 2223   350    56 1495    16
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 0.94  0.94  0.95 0.88  0.88  0.95 0.91  0.85  0.95 0.91  0.85
Lanes:       2.71 0.05  0.24  1.00 0.18  0.82  1.00 3.00  1.00  1.00 4.00  1.00
Final Sat.:  4717   82   434  1805  303  1363  1805 5187  1615  1805 6916  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.07 0.09  0.09  0.01 0.03  0.03  0.03 0.43  0.22  0.03 0.22  0.01
Crit Moves:             ****             ****       ****        ****
Green/Cycle: 0.14 0.14  0.14  0.04 0.04  0.04  0.08 0.69  0.69  0.05 0.66  0.66
Volume/Cap:  0.49 0.62  0.62  0.22 0.62  0.62  0.33 0.62  0.31  0.62 0.33  0.01
Delay/Veh:   40.4 42.7  42.7  47.7 62.8  62.8  44.8  8.7   6.3  59.2  7.4   5.8
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:  40.4 42.7  42.7  47.7 62.8  62.8  44.8  8.7   6.3  59.2  7.4   5.8
LOS by Move:    D    D     D     D    E     E     D    A     A     E    A     A
HCM2kAvgQ:      4    5     5     1    2     2     1   13     4     2    5     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
           STATE HIGHWAY - FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #112 JAMBOREE RD/COAST HWY
********************************************************************************
Cycle (sec):        100                Critical Vol./Cap.(X):         0.556
Loss Time (sec):       8                Average Delay (sec/veh):        27.3
Optimal Cycle:        35                Level Of Service:                  C
********************************************************************************
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          Ignore           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:        1  0  1  1  0    1  0  2  0  1    3  0  3  1  0    2  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      25  354   101   144  229   617   859 1560    20   100  953    77
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:   25  354   101   144  229   617   859 1560    20   100  953    77
Added Vol:      0    0     0     0    0     1     0    0     0     0    1     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   25  354   101   144  229   618   859 1560    20   100  954    77
User Adj:    1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Volume:    25  354   101   144  229     0   859 1560    20   100  954     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   25  354   101   144  229     0   859 1560    20   100  954     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  0.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
FinalVolume:   25  354   101   144  229     0   859 1560    20   100  954     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.95 0.92  0.92  0.95 0.95  1.00  0.92 0.91  0.91  0.92 0.91  1.00
Lanes:       1.00 1.56  0.44  1.00 2.00  1.00  3.00 3.95  0.05  2.00 4.00  1.00
Final Sat.:  1805 2716   775  1805 3610  1900  5253 6815    87  3502 6916  1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.13  0.13  0.08 0.06  0.00  0.16 0.23  0.23  0.03 0.14  0.00
Crit Moves:       ****        ****             ****                  ****
Green/Cycle: 0.07 0.23  0.23  0.14 0.31  0.00  0.29 0.48  0.48  0.06 0.25  0.00
Volume/Cap:  0.20 0.56  0.56  0.56 0.20  0.00  0.56 0.47  0.47  0.47 0.56  0.00
Delay/Veh:   44.9 34.6  34.6  42.5 25.5   0.0  30.2 17.5  17.5  47.2 33.2   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:  44.9 34.6  34.6  42.5 25.5   0.0  30.2 17.5  17.5  47.2 33.2   0.0
LOS by Move:    D    C     C     D    C     A     C    B     B     D    C     A
HCM2kAvgQ:      1    7     7     5    3     0     7    9     9     2    8     0
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
           STATE HIGHWAY - FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                            Turning Movement Report
                                    PROJ-PM

Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume

#101 IRVINE AVE/DOVER DR
Base     90  743     3   213 1218    79    63  129    68    37  149   256   3048
Added     0    2     0     2    2     0     0    0     0     0    0     2      8
Total    90  745     3   215 1220    79    63  129    68    37  149   258   3056

#102 IRVINE AVE/17TH ST
Base    303  435    48   143  521   336   310  577   233    98  671    66   3741
Added     0    0     0     2    0     0     0    5     0     0    4     2     13
Total   303  435    48   145  521   336   310  582   233    98  675    68   3754

#103 DOVER DR/WESTCLIFF DR
Base    586  569     0     0  312    63   115    0   547     0    0     0   2192
Added     5    4     0     0    5     0     0    0     7     0    0     0     21
Total   591  573     0     0  317    63   115    0   554     0    0     0   2213

#104 DOVER DR/16TH ST
Base    123 1040    38    63  897    20    21   23   121    21   11    51   2429
Added     2    9     0     0   12     0     0    0     2     0    0     0     25
Total   125 1049    38    63  909    20    21   23   123    21   11    51   2454

#105 DOVER DR/CLIFF DR
Base    124 1204     0     0 1033    61    49    0   116     0    0     0   2587
Added     4   11     0     0   14     0     0    0     5     0    0     0     34
Total   128 1215     0     0 1047    61    49    0   121     0    0     0   2621

#106 NEWPORT BLVD/COAST HWY
Base      0    0     0   592    0   397     0 1274   161     0 1841   492   4757
Added     0    0     0     5    0     0     0    5     0     0    4     0     14
Total     0    0     0   597    0   397     0 1279   161     0 1845   492   4771

#107 RIVERSIDE AVE/COAST HWY
Base     10   11     2    99    2   408   246 1387     5    11 2177    71   4429
Added     0    0     0     2    0     0     0   14     0     0   11     2     29
Total    10   11     2   101    2   408   246 1401     5    11 2188    73   4458

#108 TUSTIN AVE/COAST HWY
Base      0    1     2    56    0    27    95 1390    20     0 2252    53   3896
Added     0    0     0     0    0     0     0   17     0     0   13     0     30
Total     0    1     2    56    0    27    95 1407    20     0 2265    53   3926

#109 BALBOA BAY DRIVEWAY/COAST HWY
Base     32    0    36     9    0    12     4 1731    33    43 2046    13   3959
Added     0    0     0     0    0     0     0   17     0    23   13     0     53
Total    32    0    36     9    0    12     4 1748    33    66 2059    13   4012
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
           STATE HIGHWAY - FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume


#110 DOVER DR - BAY SHORE DR/COAST HWY
Base     35   42    41   927   62   120   146 1283    25    51 2175  1031   5938
Added     0    0     0     0    0    19    31    9     0     0   12     0     71
Total    35   42    41   927   62   139   177 1292    25    51 2187  1031   6009

#111 BAYSIDE DR/COAST HWY
Base    300    9    37    16    9    42    44 1968   390    85 2810    40   5750
Added     5    0     0     0    0     0     0    5     4     0    7     0     21
Total   305    9    37    16    9    42    44 1973   394    85 2817    40   5771

#112 JAMBOREE RD/COAST HWY
Base     34  244    84   200  431  1181   743 1277    19   197 1896   145   6451
Added     0    0     0     0    0     2     2    4     0     0    5     0     13
Total    34  244    84   200  431  1183   745 1281    19   197 1901   145   6464

#113 DRIVEWAY
Base      0    0     0     0    0     0     0    0     0     0    0     0      0
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Total     0    0     0     0    0     0     0    0     0     0    0     0      0

#120
Base      0    0     0     0    0     0     0    0     0     0    0     0      0
Added     0    0    23     0    0     0     0   17     0     0   31     0     71
Total     0    0    23     0    0     0     0   17     0     0   31     0     71
```

```
---------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
          STATE HIGHWAY - FORECAST EXISTING PLUS PROJECT CONDITIONS
                                PM PEAK HOUR
---------------------------------------------------------------------------------

                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
*********************************************************************************
Intersection #106 NEWPORT BLVD/COAST HWY
*********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):         0.640
Loss Time (sec):       6              Average Delay (sec/veh):        18.0
Optimal Cycle:        36              Level Of Service:                  B
*********************************************************************************
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       Protected        Protected
Rights:           Include          Include          Ignore           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  0  0  0    2  0  0  0  1    0  0  2  0  1    0  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:        0    0    0   592    0  397      0 1274  161      0 1841  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    0    0   592    0  397      0 1274  161      0 1841  492
Added Vol:       0    0    0     5    0    0      0    5    0      0    4    0
PasserByVol:     0    0    0     0    0    0      0    0    0      0    0    0
Initial Fut:     0    0    0   597    0  397      0 1279  161      0 1845  492
User 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
PHF 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
PHF Volume:      0    0    0   597    0  397      0 1279    0      0 1845    0
Reduct Vol:      0    0    0     0    0    0      0    0    0      0    0    0
Reduced Vol:     0    0    0   597    0  397      0 1279    0      0 1845    0
PCE 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
MLF 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
FinalVolume:     0    0    0   597    0  397      0 1279    0      0 1845    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1900 1900 1900  1900 1900 1900   1900 1900 1900   1900 1900 1900
Adjustment:   1.00 1.00 1.00  0.92 1.00 0.85   1.00 0.95 1.00   1.00 0.91 1.00
Lanes:        0.00 0.00 0.00  2.00 0.00 1.00   0.00 2.00 1.00   0.00 3.00 1.00
Final Sat.:      0    0    0  3502    0 1615      0 3610 1900      0 5187 1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.00 0.00 0.00  0.17 0.00 0.25   0.00 0.35 0.00   0.00 0.36 0.00
Crit Moves:                              ****  ****                    ****
Green/Cycle:  0.00 0.00 0.00  0.38 0.00 0.38   0.00 0.56 0.00   0.00 0.56 0.00
Volume/Cap:   0.00 0.00 0.00  0.44 0.00 0.64   0.00 0.64 0.00   0.00 0.64 0.00
Delay/Veh:     0.0  0.0  0.0  23.1  0.0 27.4    0.0 16.0  0.0    0.0 15.8  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  0.0  0.0  23.1  0.0 27.4    0.0 16.0  0.0    0.0 15.8  0.0
LOS by Move:     A    A    A     C    A    C      A    B    A      A    B    A
HCM2kAvgQ:       0    0    0     7    0   11      0   15    0      0   15    0
*********************************************************************************
Note: Queue reported is the number of cars per lane.
```

```
---------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
          STATE HIGHWAY - FORECAST EXISTING PLUS PROJECT CONDITIONS
                                PM PEAK HOUR
---------------------------------------------------------------------------------

                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
*********************************************************************************
Intersection #107 RIVERSIDE AVE/COAST HWY
*********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):         0.718
Loss Time (sec):       6              Average Delay (sec/veh):        16.0
Optimal Cycle:        44              Level Of Service:                  B
*********************************************************************************
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        Protected        Protected
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:       0  0  1! 0  0    0  1  0  0  1    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       10   11    2    99    2  408    246 1387    5     11 2177   71
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   11    2    99    2  408    246 1387    5     11 2177   71
Added Vol:       0    0    0     2    0    0      0   14    0      0   11    2
PasserByVol:     0    0    0     0    0    0      0    0    0      0    0    0
Initial Fut:    10   11    2   101    2  408    246 1401    5     11 2188   73
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:     10   11    2   101    2  408    246 1401    5     11 2188   73
Reduct Vol:      0    0    0     0    0    0      0    0    0      0    0    0
Reduced Vol:    10   11    2   101    2  408    246 1401    5     11 2188   73
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   11    2   101    2  408    246 1401    5     11 2188   73
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1900 1900 1900  1900 1900 1900   1900 1900 1900   1900 1900 1900
Adjustment:   0.91 0.91 0.91  0.73 0.73 0.85   0.95 0.95 0.95   0.95 0.91 0.85
Lanes:        0.43 0.48 0.09  0.98 0.02 1.00   1.00 1.99 0.01   1.00 3.00 1.00
Final Sat.:    750  825  150  1358   27 1615   1805 3594   13   1805 5187 1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.01 0.01 0.01  0.07 0.07 0.25   0.14 0.39 0.39   0.01 0.42 0.05
Crit Moves:                              ****  ****                    ****
Green/Cycle:  0.16 0.16 0.16  0.16 0.16 0.35   0.19 0.77 0.77   0.01 0.59 0.59
Volume/Cap:   0.08 0.08 0.08  0.46 0.46 0.72   0.72 0.51 0.51   0.51 0.72 0.08
Delay/Veh:    35.7 35.7 35.7  39.4 39.4 32.5   45.1  4.7  4.7   67.8 15.5  8.9
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:   35.7 35.7 35.7  39.4 39.4 32.5   45.1  4.7  4.7   67.8 15.5  8.9
LOS by Move:     D    D    D     D    D    C      D    A    A      E    B    A
HCM2kAvgQ:       1    1    1     3    3   12      9    9    9      0   17    1
*********************************************************************************
Note: Queue reported is the number of cars per lane.
```

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--------------------------------------------------------------------------------
                       MARINERS POINTE - 10-107807
          STATE HIGHWAY - FORECAST EXISTING PLUS PROJECT CONDITIONS
                              PM PEAK HOUR
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #108 TUSTIN AVE/COAST HWY
********************************************************************************
Cycle (sec):        100                 Critical Vol./Cap.(X):        0.582
Loss Time (sec):      6                 Average Delay (sec/veh):        6.4
Optimal Cycle:       32                 Level Of Service:                 A
********************************************************************************
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        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  1  0   0  0  1! 0  0   1  0  1  1  0   1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    1    2   56    0   27   95 1390   20    0 2252   53
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    1    2   56    0   27   95 1390   20    0 2252   53
Added Vol:      0    0    0    0    0    0    0   17    0    0   13    0
PasserByVol:    0    0    0    0    0    0    0    0    0    0    0    0
Initial Fut:    0    1    2   56    0   27   95 1407   20    0 2265   53
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:     0    1    2   56    0   27   95 1407   20    0 2265   53
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:    0    1    2   56    0   27   95 1407   20    0 2265   53
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    1    2   56    0   27   95 1407   20    0 2265   53
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  1.00 0.91 0.91 0.76 1.00 0.76 0.95 0.95 0.95 1.00 0.91 0.85
Lanes:       0.00 0.33 0.67 0.67 0.00 0.33 1.00 1.97 0.03 1.00 3.00 1.00
Final Sat.:     0  576 1153  977    0  471 1805 3552   50 1900 5187 1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00 0.00 0.06 0.00 0.06 0.05 0.40 0.40 0.00 0.44 0.03
Crit Moves:                 ****           ****                     ****
Green/Cycle: 0.00 0.10 0.10 0.10 0.00 0.10 0.09 0.84 0.84 0.00 0.75 0.75
Volume/Cap:  0.00 0.02 0.02 0.58 0.00 0.58 0.58 0.47 0.47 0.00 0.58 0.04
Delay/Veh:    0.0 40.7 40.7 49.1  0.0 49.1 48.9  2.2  2.2  0.0  5.7  3.2
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 40.7 40.7 49.1  0.0 49.1 48.9  2.2  2.2  0.0  5.7  3.2
LOS by Move:    A    D    D    D    A    D    D    A    A    A    A    A
HCM2kAvgQ:      0    0    0    3    0    3    3    6    6    0   12    0
********************************************************************************
Note: Queue reported is the number of cars per lane.
```

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--------------------------------------------------------------------------------
                       MARINERS POINTE - 10-107807
          STATE HIGHWAY - FORECAST EXISTING PLUS PROJECT CONDITIONS
                              PM PEAK HOUR
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #109 BALBOA BAY DRIVEWAY/COAST HWY
********************************************************************************
Cycle (sec):        100                 Critical Vol./Cap.(X):        0.661
Loss Time (sec):      6                 Average Delay (sec/veh):        5.3
Optimal Cycle:       38                 Level Of Service:                 A
********************************************************************************
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        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  1! 0  0   0  0  1! 0  0   1  0  2  0  1   1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      32    0   36    9    0   12    4 1731   33   43 2046   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:   32    0   36    9    0   12    4 1731   33   43 2046   13
Added Vol:      0    0    0    0    0    0    0   17    0   23   13    0
PasserByVol:    0    0    0    0    0    0    0    0    0    0    0    0
Initial Fut:   32    0   36    9    0   12    4 1748   33   66 2059   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:     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:    32    0   36    9    0   12    4 1748   33   66 2059   13
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   32    0   36    9    0   12    4 1748   33   66 2059   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:   32    0   36    9    0   12    4 1748   33   66 2059   13
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.80 1.00 0.80 0.78 1.00 0.78 0.95 0.95 0.85 0.95 0.95 0.95
Lanes:       0.47 0.00 0.53 0.43 0.00 0.57 1.00 2.00 1.00 1.00 1.99 0.01
Final Sat.:   712    0  801  639    0  852 1805 3610 1615 1805 3584   23
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.00 0.04 0.01 0.00 0.01 0.00 0.48 0.02 0.04 0.57 0.57
Crit Moves:  ****                          ****                     ****
Green/Cycle: 0.07 0.00 0.07 0.07 0.00 0.07 0.00 0.81 0.81 0.06 0.87 0.87
Volume/Cap:  0.66 0.00 0.66 0.21 0.00 0.21 0.66 0.60 0.03 0.60 0.66 0.66
Delay/Veh:   60.4  0.0 60.4 45.1  0.0 45.1 193.1  3.8  1.8 54.4  2.6  2.6
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:  60.4  0.0 60.4 45.1  0.0 45.1 193.1  3.8  1.8 54.4  2.6  2.6
LOS by Move:    E    A    E    D    A    D    F    A    A    D    A    A
HCM2kAvgQ:      3    0    3    1    0    1    1   11    0    3   11   11
********************************************************************************
Note: Queue reported is the number of cars per lane.
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
           STATE HIGHWAY - FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------

                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #110 DOVER DR - BAY SHORE DR/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.732
Loss Time (sec):       8                Average Delay (sec/veh):        22.7
Optimal Cycle:        53                Level Of Service:                  C
********************************************************************************
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       Protected        Protected
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:        1  0  1  1  0    3  0  1  0  1    2  0  2  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      35   42    41   927   62   120   146 1283    25    51 2175  1031
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   42    41   927   62   120   146 1283    25    51 2175  1031
Added Vol:      0    0     0     0    0    19    31    9     0     0   12     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   35   42    41   927   62   139   177 1292    25    51 2187  1031
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:    35   42    41   927   62   139   177 1292    25    51 2187     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   35   42    41   927   62   139   177 1292    25    51 2187     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:   35   42    41   927   62   139   177 1292    25    51 2187     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.95 0.88  0.88  0.92 1.00  0.85  0.92 0.91  0.91  0.95 0.91  1.00
Lanes:       1.00 1.01  0.99  3.00 1.00  1.00  2.00 2.94  0.06  1.00 3.00  1.00
Final Sat.:  1805 1692  1651  5253 1900  1615  3502 5073    98  1805 5187  1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.02  0.02  0.18 0.03  0.09  0.05 0.25  0.25  0.03 0.42  0.00
Crit Moves:       ****        ****             ****                  ****
Green/Cycle: 0.03 0.03  0.03  0.24 0.24  0.24  0.07 0.58  0.58  0.06 0.58  0.00
Volume/Cap:  0.57 0.73  0.73  0.73 0.14  0.36  0.73 0.44  0.44  0.44 0.73  0.00
Delay/Veh:   59.9 69.4  69.4  37.2 29.9  32.1  56.5 11.9  11.9  47.7 16.5   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:  59.9 69.4  69.4  37.2 29.9  32.1  56.5 11.9  11.9  47.7 16.5   0.0
LOS by Move:    E    E     E     D    C     C     E    B     B     D    B     A
HCM2kAvgQ:      2    3     3    11    2     4     4    8     8     1   18     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
           STATE HIGHWAY - FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------

                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #111 BAYSIDE DR/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.589
Loss Time (sec):       8                Average Delay (sec/veh):        12.7
Optimal Cycle:        38                Level Of Service:                  B
********************************************************************************
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       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:        2  0  1! 0  0    1  0  0  1  0    1  0  3  0  1    1  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     300    9    37    16    9    42    44 1968   390    85 2810    40
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:  300    9    37    16    9    42    44 1968   390    85 2810    40
Added Vol:      5    0     0     0    0     0     0    5     4     0    7     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  305    9    37    16    9    42    44 1973   394    85 2817    40
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:   305    9    37    16    9    42    44 1973   394    85 2817    40
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  305    9    37    16    9    42    44 1973   394    85 2817    40
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:  305    9    37    16    9    42    44 1973   394    85 2817    40
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.91 0.94  0.94  0.95 0.88  0.88  0.95 0.91  0.85  0.95 0.91  0.85
Lanes:       2.69 0.06  0.25  1.00 0.18  0.82  1.00 3.00  1.00  1.00 4.00  1.00
Final Sat.:  4682  107   439  1805  294  1371  1805 5187  1615  1805 6916  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.07 0.08  0.08  0.01 0.03  0.03  0.02 0.38  0.24  0.05 0.41  0.02
Crit Moves:             ****             ****       ****        ****
Green/Cycle: 0.14 0.14  0.14  0.05 0.05  0.05  0.04 0.65  0.65  0.08 0.68  0.68
Volume/Cap:  0.46 0.59  0.59  0.17 0.59  0.59  0.60 0.59  0.38  0.59 0.60  0.04
Delay/Veh:   39.7 41.7  41.7  46.2 56.6  56.6  59.6 10.4   8.6  50.7  8.6   5.1
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:  39.7 41.7  41.7  46.2 56.6  56.6  59.6 10.4   8.6  50.7  8.6   5.1
LOS by Move:    D    D     D     D    E     E     E    B     A     D    A     A
HCM2kAvgQ:      4    5     5     1    3     3     1   13     6     2   12     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
           STATE HIGHWAY - FORECAST EXISTING PLUS PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #112 JAMBOREE RD/COAST HWY
********************************************************************************
Cycle (sec):         100               Critical Vol./Cap.(X):         0.676
Loss Time (sec):       8               Average Delay (sec/veh):        28.2
Optimal Cycle:        45               Level Of Service:                  C
********************************************************************************
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          Ignore           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:        1  0  1  1  0    1  0  2  0  1    3  0  3  1  0    2  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      34  244    84   200  431  1181   743 1277    19   197 1896   145
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:   34  244    84   200  431  1181   743 1277    19   197 1896   145
Added Vol:      0    0     0     0    0     2     2    4     0     0    5     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   34  244    84   200  431  1183   745 1281    19   197 1901   145
User Adj:    1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Volume:    34  244    84   200  431     0   745 1281    19   197 1901     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   34  244    84   200  431     0   745 1281    19   197 1901     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  0.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
FinalVolume:   34  244    84   200  431     0   745 1281    19   197 1901     0
------------|---------------||---------------||---------------||---------------|
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 0.95  1.00  0.92 0.91  0.91  0.92 0.91  1.00
Lanes:       1.00 1.49  0.51  1.00 2.00  1.00  3.00 3.94  0.06  2.00 4.00  1.00
Final Sat.:  1805 2583   889  1805 3610  1900  5253 6801   101  3502 6916  1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.09  0.09  0.11 0.12  0.00  0.14 0.19  0.19  0.06 0.27  0.00
Crit Moves:       ****        ****             ****                  ****
Green/Cycle: 0.04 0.14  0.14  0.16 0.26  0.00  0.21 0.47  0.47  0.14 0.41  0.00
Volume/Cap:  0.46 0.68  0.68  0.68 0.46  0.00  0.68 0.40  0.40  0.40 0.68  0.00
Delay/Veh:   51.2 44.7  44.7  45.4 31.3   0.0  38.1 17.1  17.1  39.5 24.9   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:  51.2 44.7  44.7  45.4 31.3   0.0  38.1 17.1  17.1  39.5 24.9   0.0
LOS by Move:    D    D     D     D    C     A     D    B     B     D    C     A
HCM2kAvgQ:      2    6     6     7    6     0     7    7     7     3   14     0
********************************************************************************
```

State Highway - Forecast Cumulative Without Project Conditions

```
--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
          STATE HIGHWAY - 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                AM PEAK HOUR
--------------------------------------------------------------------------------
                           Turning Movement Report
                                    NONE

Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume

#101 IRVINE AVE/DOVER DR
Base     77  746    18   197  657    33    54  139    59    20  110   265   2375
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0     0    0     0     0   13     0     0   46     0     59
Total    77  746    18   197  657    33    54  152    59    20  156   265   2434

#102 IRVINE AVE/17TH ST
Base    323  547    27   220  448   143   208  495   205    28  322    60   3026
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0     0    0     0     0    3     0     0    9     0     12
Total   323  547    27   220  448   143   208  498   205    28  331    60   3038

#103 DOVER DR/WESTCLIFF DR
Base    355  453     0     0  388    58    85    0   585     0    0     0   1924
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    9   46     0     0   13     0     0    0     3     0    0     0     71
Total   364  499     0     0  401    58    85    0   588     0    0     0   1995

#104 DOVER DR/16TH ST
Base    123  677    31    41 1030    57    45   20   177    64   16    58   2339
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0   55     0     0   16     0     0    0     0     0    0     0     71
Total   123  732    31    41 1046    57    45   20   177    64   16    58   2410

#105 DOVER DR/CLIFF DR
Base    120  717     0     0 1016   249   112    0   159     0    0     0   2373
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0   55     0     0   16     0     0    0     0     0    0     0     71
Total   120  772     0     0 1032   249   112    0   159     0    0     0   2444

#106 NEWPORT BLVD/COAST HWY
Base      0    0     0   424    0   335     0 2197   200     0  891   365   4412
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0    15    0    40     0  167     6     0  113     5    346
Total     0    0     0   439    0   375     0 2364   206     0 1004   370   4758

#107 RIVERSIDE AVE/COAST HWY
Base      0    0     1    80    4   316   325 2095     4    18 1263    70   4176
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0     0    0     1     0   57     0     0  171     0    229
Total     0    0     1    80    4   317   325 2152     4    18 1434    70   4405
```

```
--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
          STATE HIGHWAY - 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                AM PEAK HOUR
--------------------------------------------------------------------------------
Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume


#108 TUSTIN AVE/COAST HWY
Base      0    0     0    34    1    15    44 2202     1     1 1363    36   3697
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0     0    0     1     0   57     0     0  164     0    222
Total     0    0     0    34    1    16    44 2259     1     1 1527    36   3919

#109 BALBOA BAY DRIVEWAY/COAST HWY
Base     27    0    27     1    3     1     5 2072    40    62 1547    11   3796
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0     0    0     0     0   57     0     0  164     0    221
Total    27    0    27     1    3     1     5 2129    40    62 1711    11   4017

#110 DOVER DR - BAY SHORE DR/COAST HWY
Base     17   63    30   893   53   117   126 2109    26    44 1344   497   5319
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0    15    0     1     3   53     0     0  164    52    288
Total    17   63    30   908   53   118   129 2162    26    44 1508   549   5607

#111 BAYSIDE DR/COAST HWY
Base    326    7    39    62    8    55    83 2385   361    58 1600    16   5000
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    2    0     0     0    0     0     0   63     0     0  214     0    279
Total   328    7    39    62    8    55    83 2448   361    58 1814    16   5279

#112 JAMBOREE RD/COAST HWY
Base     26  365   105   155  237   751   937 1692    22   104 1030    80   5504
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    8    2     0    55    0    19     0   71     3     0  187   112    457
Total    34  367   105   210  237   770   937 1763    25   104 1217   192   5961
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
          STATE HIGHWAY - 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------

                      Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #106 NEWPORT BLVD/COAST HWY
********************************************************************************
Cycle (sec):         100                 Critical Vol./Cap.(X):         0.944
Loss Time (sec):       6                 Average Delay (sec/veh):        23.3
Optimal Cycle:       127                 Level Of Service:                  C
********************************************************************************
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       Protected        Protected
Rights:           Include          Include          Ignore           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  0  0  0   2  0  0  0  1   0  0  2  0  1   0  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0    0   424    0  335     0 2197  200     0  891  365
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   424    0  335     0 2197  200     0  891  365
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Cumulatives:    0    0    0    15    0   40     0  167    6     0  113    5
Initial Fut:    0    0    0   439    0  375     0 2364  206     0 1004  370
User 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
PHF 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
PHF Volume:     0    0    0   439    0  375     0 2364    0     0 1004    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    0    0    0   439    0  375     0 2364    0     0 1004    0
PCE 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
MLF 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
FinalVolume:    0    0    0   439    0  375     0 2364    0     0 1004    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  1.00 1.00 1.00  0.92 1.00 0.85  1.00 0.95 1.00  1.00 0.91 1.00
Lanes:       0.00 0.00 0.00  2.00 0.00 1.00  0.00 2.00 1.00  0.00 3.00 1.00
Final Sat.:     0    0    0  3502    0 1615     0 3610 1900     0 5187 1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00 0.00  0.13 0.00 0.23  0.00 0.65 0.00  0.00 0.19 0.00
Crit Moves:                            ****        ****        ****
Green/Cycle: 0.00 0.00 0.00  0.25 0.00 0.25  0.00 0.69 0.00  0.00 0.69 0.00
Volume/Cap:  0.00 0.00 0.00  0.51 0.00 0.94  0.00 0.94 0.00  0.00 0.28 0.00
Delay/Veh:    0.0  0.0  0.0  33.0  0.0 68.1   0.0 21.8  0.0   0.0  5.9  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  0.0  0.0  33.0  0.0 68.1   0.0 21.8  0.0   0.0  5.9  0.0
LOS by Move:    A    A    A     C    A    E     A    C    A     A    A    A
HCM2kAvgQ:      0    0    0     6    0   16     0   39    0     0    4    0
********************************************************************************
Note: Queue reported is the number of cars per lane.
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
          STATE HIGHWAY - 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------

                      Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #107 RIVERSIDE AVE/COAST HWY
********************************************************************************
Cycle (sec):         100                 Critical Vol./Cap.(X):         0.711
Loss Time (sec):       6                 Average Delay (sec/veh):        12.7
Optimal Cycle:        43                 Level Of Service:                  B
********************************************************************************
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        Protected        Protected
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:        0  0  0  0  1   0  1  0  0  1   1  0  1  1  0   1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0    1    80    4  316   325 2095    4    18 1263   70
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    1    80    4  316   325 2095    4    18 1263   70
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Cumulatives:    0    0    0     0    0    1     0   57    0     0  171    0
Initial Fut:    0    0    1    80    4  317   325 2152    4    18 1434   70
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:     0    0    1    80    4  317   325 2152    4    18 1434   70
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    0    0    1    80    4  317   325 2152    4    18 1434   70
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    1    80    4  317   325 2152    4    18 1434   70
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  1.00 1.00 0.87  0.73 0.73 0.85  0.95 0.95 0.95  0.95 0.91 0.85
Lanes:       0.00 0.00 1.00  0.95 0.05 1.00  1.00 1.99 0.01  1.00 3.00 1.00
Final Sat.:     0    0 1644  1312   66 1615  1805 3603    7  1805 5187 1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00 0.00  0.06 0.06 0.20  0.18 0.60 0.60  0.01 0.28 0.04
Crit Moves:                       ****             ****        ****
Green/Cycle: 0.00 0.00 0.09  0.09 0.09 0.42  0.34 0.84 0.84  0.01 0.52 0.52
Volume/Cap:  0.00 0.00 0.01  0.71 0.71 0.46  0.53 0.71 0.71  0.71 0.53 0.08
Delay/Veh:    0.0  0.0 41.8  62.7 62.7 21.2  27.7  4.0  4.0 113.9 16.3 12.2
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 41.8  62.7 62.7 21.2  27.7  4.0  4.0 113.9 16.3 12.2
LOS by Move:    A    A    D     E    E    C     C    A    A     F    B    B
HCM2kAvgQ:      0    0    0     4    4    7     8   15   15     1   11    1
********************************************************************************
Note: Queue reported is the number of cars per lane.
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
          STATE HIGHWAY - 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------

                     Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #108 TUSTIN AVE/COAST HWY
********************************************************************************
Cycle (sec):        100              Critical Vol./Cap.(X):         0.699
Loss Time (sec):      6              Average Delay (sec/veh):         3.7
Optimal Cycle:       42              Level Of Service:                  A
********************************************************************************
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        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  1! 0  0    0  0  1! 0  0    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:        0    0     0    34    1    15    44 2202     1     1 1363    36
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    34    1    15    44 2202     1     1 1363    36
Added Vol:       0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:     0    0     0     0    0     1     0   57     0     0  164     0
Initial Fut:     0    0     0    34    1    16    44 2259     1     1 1527    36
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:      0    0     0    34    1    16    44 2259     1     1 1527    36
Reduct Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:     0    0     0    34    1    16    44 2259     1     1 1527    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:     0    0     0    34    1    16    44 2259     1     1 1527    36
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:   1.00 1.00  1.00  0.87 0.87  0.87  0.95 0.95  0.95  0.95 0.91  0.85
Lanes:        0.00 1.00  0.00  0.67 0.02  0.31  1.00 1.99  0.01  1.00 3.00  1.00
Final Sat.:      0 1900     0  1104   32   520  1805 3608     2  1805 5187  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.00 0.00  0.00  0.03 0.03  0.03  0.02 0.63  0.63  0.00 0.29  0.02
Crit Moves:                         ****             ****         ****
Green/Cycle:  0.00 0.00  0.00  0.04 0.04  0.04  0.07 0.90  0.90  0.00 0.83  0.83
Volume/Cap:   0.00 0.00  0.00  0.70 0.70  0.70  0.36 0.70  0.70  0.70 0.36  0.03
Delay/Veh:     0.0  0.0   0.0  73.1 73.1  73.1  46.2  2.2   2.2 449.3  2.2   1.5
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  0.0   0.0  73.1 73.1  73.1  46.2  2.2   2.2 449.3  2.2   1.5
LOS by Move:     A    A     A     E    E     E     D    A     A     F    A     A
HCM2kAvgQ:       0    0     0     3    3     3     1   11    11     0    4     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
          STATE HIGHWAY - 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------

                     Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #109 BALBOA BAY DRIVEWAY/COAST HWY
********************************************************************************
Cycle (sec):        100              Critical Vol./Cap.(X):         0.703
Loss Time (sec):      6              Average Delay (sec/veh):         5.0
Optimal Cycle:       42              Level Of Service:                  A
********************************************************************************
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        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  1! 0  0    0  0  1! 0  0    1  0  2  0  1    1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       27    0    27     1    3     1     5 2072    40    62 1547    11
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:    27    0    27     1    3     1     5 2072    40    62 1547    11
Added Vol:       0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:     0    0     0     0    0     0     0   57     0     0  164     0
Initial Fut:    27    0    27     1    3     1     5 2129    40    62 1711    11
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:     27    0    27     1    3     1     5 2129    40    62 1711    11
Reduct Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    27    0    27     1    3     1     5 2129    40    62 1711    11
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:    27    0    27     1    3     1     5 2129    40    62 1711    11
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:   0.78 1.00  0.78  0.91 0.91  0.91  0.95 0.95  0.85  0.95 0.95  0.95
Lanes:        0.50 0.00  0.50  0.20 0.60  0.20  1.00 2.00  1.00  1.00 1.99  0.01
Final Sat.:    737    0   737   347 1040   347  1805 3610  1615  1805 3583    23
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.04 0.00  0.04  0.00 0.00  0.00  0.00 0.59  0.02  0.03 0.48  0.48
Crit Moves:   ****                                   ****         ****
Green/Cycle:  0.05 0.00  0.05  0.05 0.05  0.05  0.01 0.84  0.84  0.05 0.88  0.88
Volume/Cap:   0.70 0.00  0.70  0.06 0.06  0.06  0.54 0.70  0.03  0.70 0.54  0.54
Delay/Veh:    72.0  0.0  72.0  45.3 45.3  45.3 101.9  3.9   1.3  69.3  1.5   1.5
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:   72.0  0.0  72.0  45.3 45.3  45.3 101.9  3.9   1.3  69.3  1.5   1.5
LOS by Move:     E    A     E     D    D     D     F    A     A     E    A     A
HCM2kAvgQ:       3    0     3     0    0     0     1   14     0     3    7     7
********************************************************************************
Note: Queue reported is the number of cars per lane.
```

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2013CUML-NP-AM            Mon Jan 31, 2011 09:42:21                Page 7-1
--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
          STATE HIGHWAY - 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #110 DOVER DR - BAY SHORE DR/COAST HWY
********************************************************************************
Cycle (sec):        100              Critical Vol./Cap.(X):        0.703
Loss Time (sec):      8              Average Delay (sec/veh):       21.0
Optimal Cycle:       49              Level Of Service:                 C
********************************************************************************
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       Protected        Protected
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:        1  0  1  1  0    3  0  1  0  1    2  0  2  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      17   63    30   893   53   117   126 2109    26    44 1344   497
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:   17   63    30   893   53   117   126 2109    26    44 1344   497
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:    0    0     0    15    0     1     3   53     0     0  164    52
Initial Fut:   17   63    30   908   53   118   129 2162    26    44 1508   549
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:    17   63    30   908   53   118   129 2162    26    44 1508     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   17   63    30   908   53   118   129 2162    26    44 1508     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:   17   63    30   908   53   118   129 2162    26    44 1508     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.95 0.90  0.90  0.92 1.00  0.85  0.92 0.91  0.91  0.95 0.91  1.00
Lanes:       1.00 1.35  0.65  3.00 1.00  1.00  2.00 2.96  0.04  1.00 3.00  1.00
Final Sat.:  1805 2328  1109  5253 1900  1615  3502 5115    62  1805 5187  1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.03  0.03  0.17 0.03  0.07  0.04 0.42  0.42  0.02 0.29  0.00
Crit Moves:             ****  ****                  ****        ****
Green/Cycle: 0.04 0.04  0.04  0.25 0.25  0.25  0.07 0.60  0.60  0.03 0.56  0.00
Volume/Cap:  0.24 0.70  0.70  0.70 0.11  0.30  0.52 0.70  0.70  0.70 0.52  0.00
Delay/Veh:   48.5 63.2  63.2  36.2 29.4  31.1  46.6 14.5  14.5  78.0 13.5   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:  48.5 63.2  63.2  36.2 29.4  31.1  46.6 14.5  14.5  78.0 13.5   0.0
LOS by Move:    D    E     E     D    C     C     D    B     B     E    B     A
HCM2kAvgQ:      1    3     3    10    1     3     3   18    18     1   10     0
********************************************************************************
Note: Queue reported is the number of cars per lane.

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2013CUML-NP-AM            Mon Jan 31, 2011 09:42:21                Page 8-1
--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
          STATE HIGHWAY - 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #111 BAYSIDE DR/COAST HWY
********************************************************************************
Cycle (sec):        100              Critical Vol./Cap.(X):        0.686
Loss Time (sec):      8              Average Delay (sec/veh):       14.1
Optimal Cycle:       47              Level Of Service:                 B
********************************************************************************
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       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:        2  0  1! 0  0    1  0  0  1  0    1  0  3  0  1    1  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     326    7    39    62    8    55    83 2385   361    58 1600    16
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:  326    7    39    62    8    55    83 2385   361    58 1600    16
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:    2    0     0     0    0     0     0   63     0     0  214     0
Initial Fut:  328    7    39    62    8    55    83 2448   361    58 1814    16
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:   328    7    39    62    8    55    83 2448   361    58 1814    16
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  328    7    39    62    8    55    83 2448   361    58 1814    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:  328    7    39    62    8    55    83 2448   361    58 1814    16
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.91 0.94  0.94  0.95 0.87  0.87  0.95 0.91  0.85  0.95 0.91  0.85
Lanes:       2.71 0.04  0.25  1.00 0.13  0.87  1.00 3.00  1.00  1.00 4.00  1.00
Final Sat.:  4709   79   440  1805  210  1441  1805 5187  1615  1805 6916  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.07 0.09  0.09  0.03 0.04  0.04  0.05 0.47  0.22  0.03 0.26  0.01
Crit Moves:       ****             ****             ****        ****
Green/Cycle: 0.13 0.13  0.13  0.06 0.06  0.06  0.11 0.69  0.69  0.05 0.63  0.63
Volume/Cap:  0.54 0.69  0.69  0.62 0.69  0.69  0.42 0.69  0.32  0.69 0.42  0.02
Delay/Veh:   41.6 45.2  45.2  57.2 65.8  65.8  43.0  9.8   6.4  67.8  9.6   7.1
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:  41.6 45.2  45.2  57.2 65.8  65.8  43.0  9.8   6.4  67.8  9.6   7.1
LOS by Move:    D    D     D     E    E     E     D    A     A     E    A     A
HCM2kAvgQ:      4    6     6     3    3     3     2   16     4     2    7     0
********************************************************************************
Note: Queue reported is the number of cars per lane.

  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to RBF CONSULTING, IRVINE
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
          STATE HIGHWAY - 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #112 JAMBOREE RD/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.659
Loss Time (sec):       8                Average Delay (sec/veh):        29.0
Optimal Cycle:        44                Level Of Service:                  C
********************************************************************************
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          Ignore           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:         1  0  1  1  0    1  0  2  0  1    3  0  3  1  0    2  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      26  365   105   155  237   751   937 1692    22   104 1030    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:   26  365   105   155  237   751   937 1692    22   104 1030    80
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:    8    2     0    55    0    19     0   71     3     0  187   112
Initial Fut:   34  367   105   210  237   770   937 1763    25   104 1217   192
User Adj:    1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Volume:    34  367   105   210  237     0   937 1763    25   104 1217     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   34  367   105   210  237     0   937 1763    25   104 1217     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  0.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
FinalVolume:   34  367   105   210  237     0   937 1763    25   104 1217     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.95 0.92  0.92  0.95 0.95  1.00  0.92 0.91  0.91  0.92 0.91  1.00
Lanes:       1.00 1.56  0.44  1.00 2.00  1.00  3.00 3.94  0.06  2.00 4.00  1.00
Final Sat.:  1805 2714   777  1805 3610  1900  5253 6806    97  3502 6916  1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.14  0.14  0.12 0.07  0.00  0.18 0.26  0.26  0.03 0.18  0.00
Crit Moves:       ****        ****             ****                   ****
Green/Cycle: 0.09 0.21  0.21  0.18 0.30  0.00  0.27 0.48  0.48  0.06 0.27  0.00
Volume/Cap:  0.22 0.66  0.66  0.66 0.22  0.00  0.66 0.54  0.54  0.54 0.66  0.00
Delay/Veh:   43.4 38.8  38.8  43.4 26.6   0.0  33.5 18.2  18.2  48.9 33.5   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:  43.4 38.8  38.8  43.4 26.6   0.0  33.5 18.2  18.2  48.9 33.5   0.0
LOS by Move:    D    D     D     D    C     A     C    B     B     D    C     A
HCM2kAvgQ:      1    8     8     7    3     0     9   10    10     2   10     0
********************************************************************************
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
          STATE HIGHWAY - 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                            Turning Movement Report
                                     NONE

Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume

#101 IRVINE AVE/DOVER DR
Base     94  766     3   221 1256    81    65  133    70    39  155   264   3147
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0     0    0     0     0   50     0     0   28     0     78
Total    94  766     3   221 1256    81    65  183    70    39  183   264   3225

#102 IRVINE AVE/17TH ST
Base    312  448    49   147  537   350   326  610   240   101  699    68   3887
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0     0    0     0     0    9     0     0    5     0     14
Total   312  448    49   147  537   350   326  619   240   101  704    68   3901

#103 DOVER DR/WESTCLIFF DR
Base    604  588     0     0  324    65   119    0   567     0    0     0   2267
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    5   28     0     0   50     0     0    0     9     0    0     0     92
Total   609  616     0     0  374    65   119    0   576     0    0     0   2359

#104 DOVER DR/16TH ST
Base    127 1072    42    69  925    21    22   25   125    22   12    56   2518
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0   33     0     0   59     0     0    0     0     0    0     0     92
Total   127 1105    42    69  984    21    22   25   125    22   12    56   2610

#105 DOVER DR/CLIFF DR
Base    128 1242     0     0 1079    63    50    0   120     0    0     0   2682
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0   33     0     0   59     0     0    0     0     0    0     0     92
Total   128 1275     0     0 1138    63    50    0   120     0    0     0   2774

#106 NEWPORT BLVD/COAST HWY
Base      0    0     0   648    0   428     0 1399   172     0 1946   518   5111
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0    55    0   156     0  208     4     0   80     2    505
Total     0    0     0   703    0   584     0 1607   176     0 2026   520   5616

#107 RIVERSIDE AVE/COAST HWY
Base     10   11     2   102    2   420   254 1560     5    11 2391    76   4844
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0     0    0     0     1  172     0     0  118     0    291
Total    10   11     2   102    2   420   255 1732     5    11 2509    76   5135
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
          STATE HIGHWAY - 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume


#108 TUSTIN AVE/COAST HWY
Base      0    1     2    57    0    28    98 1563    21     0 2470    54   4294
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0     0    0     0     1  171     0     0  118     0    290
Total     0    1     2    57    0    28    99 1734    21     0 2588    54   4584

#109 BALBOA BAY DRIVEWAY/COAST HWY
Base     33    0    37     9    0    12     4 1940    34    44 2280    13   4406
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0     0    0     0     0  171     0     0  118     0    289
Total    33    0    37     9    0    12     4 2111    34    44 2398    13   4695

#110 DOVER DR - BAY SHORE DR/COAST HWY
Base     36   44    43   968   63   126   157 1439    26    52 2381  1088   6423
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    0    0     0    54    0     5     2  169     0     0  113    31    374
Total    36   44    43  1022   63   131   159 1608    26    52 2494  1119   6797

#111 BAYSIDE DR/COAST HWY
Base    309    9    38    87    9    72    71 2108   402    88 3017    41   6251
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    7    0     0     0    0     0     0  219     4     0  137     0    367
Total   316    9    38    87    9    72    71 2327   406    88 3154    41   6618

#112 JAMBOREE RD/COAST HWY
Base     36  253    90   214  447  1292   859 1375    20   208 2070   160   7024
Added     0    0     0     0    0     0     0    0     0     0    0     0      0
Cumula    6    0     0   117    1     0    21  192     6     0  132    93    568
Total    42  253    90   331  448  1292   880 1567    26   208 2202   253   7592
```

```
--------------------------------------------------------------------------------
                       MARINERS POINTE - 10-107807
          STATE HIGHWAY - 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                              PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #106 NEWPORT BLVD/COAST HWY
********************************************************************************
Cycle (sec):        100             Critical Vol./Cap.(X):        0.858
Loss Time (sec):      6             Average Delay (sec/veh):       23.9
Optimal Cycle:       75             Level Of Service:                 C
********************************************************************************
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       Protected        Protected
Rights:         Include          Include          Ignore           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  0  0  0    2  0  0  0  1    0  0  2  0  1    0  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0   648    0   428     0 1399   172     0 1946   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    0     0   648    0   428     0 1399   172     0 1946   518
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:    0    0     0    55    0   156     0  208     4     0   80     2
Initial Fut:    0    0     0   703    0   584     0 1607   176     0 2026   520
User 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
PHF 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
PHF Volume:     0    0     0   703    0   584     0 1607     0     0 2026     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0   703    0   584     0 1607     0     0 2026     0
PCE 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
MLF 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
FinalVolume:    0    0     0   703    0   584     0 1607     0     0 2026     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 1.00  1.00  0.92 1.00  0.85  1.00 0.95  1.00  1.00 0.91  1.00
Lanes:       0.00 0.00  0.00  2.00 0.00  1.00  0.00 2.00  1.00  0.00 3.00  1.00
Final Sat.:     0    0     0  3502    0  1615     0 3610  1900     0 5187  1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.20 0.00  0.36  0.00 0.45  0.00  0.00 0.39  0.00
Crit Moves:                             ****       ****        ****
Green/Cycle: 0.00 0.00  0.00  0.42 0.00  0.42  0.00 0.52  0.00  0.00 0.52  0.00
Volume/Cap:  0.00 0.00  0.00  0.48 0.00  0.86  0.00 0.86  0.00  0.00 0.75  0.00
Delay/Veh:    0.0  0.0   0.0  21.2  0.0  36.8   0.0 25.1   0.0   0.0 20.2   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  0.0   0.0  21.2  0.0  36.8   0.0 25.1   0.0   0.0 20.2   0.0
LOS by Move:    A    A     A     C    A     D     A    C     A     A    C     A
HCM2kAvgQ:      0    0     0     8    0    19     0   25     0     0   19     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
```

```
--------------------------------------------------------------------------------
                       MARINERS POINTE - 10-107807
          STATE HIGHWAY - 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                              PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #107 RIVERSIDE AVE/COAST HWY
********************************************************************************
Cycle (sec):        100             Critical Vol./Cap.(X):        0.791
Loss Time (sec):      6             Average Delay (sec/veh):       16.6
Optimal Cycle:       56             Level Of Service:                 B
********************************************************************************
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        Protected        Protected
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:        0  0  1! 0  0    0  1  0  0  1    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10   11     2   102    2   420   254 1560     5    11 2391    76
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   11     2   102    2   420   254 1560     5    11 2391    76
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:    0    0     0     0    0     0     1  172     0     0  118     0
Initial Fut:   10   11     2   102    2   420   255 1732     5    11 2509    76
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:    10   11     2   102    2   420   255 1732     5    11 2509    76
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   10   11     2   102    2   420   255 1732     5    11 2509    76
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   11     2   102    2   420   255 1732     5    11 2509    76
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.91 0.91  0.91  0.73 0.73  0.85  0.95 0.95  0.95  0.95 0.91  0.85
Lanes:       0.43 0.48  0.09  0.98 0.02  1.00  1.00 1.99  0.01  1.00 3.00  1.00
Final Sat.:   748  823   150  1355   27  1615  1805 3600    10  1805 5187  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.01  0.01  0.08 0.08  0.26  0.14 0.48  0.48  0.01 0.48  0.05
Crit Moves:                             ****  ****                  ****
Green/Cycle: 0.15 0.15  0.15  0.15 0.15  0.33  0.18 0.78  0.78  0.01 0.61  0.61
Volume/Cap:  0.09 0.09  0.09  0.50 0.50  0.79  0.79 0.62  0.62  0.62 0.79  0.08
Delay/Veh:   36.8 36.8  36.8  41.0 41.0  38.4  51.8  5.1   5.1 100.4 16.0   8.0
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:  36.8 36.8  36.8  41.0 41.0  38.4  51.8  5.1   5.1 100.4 16.0   8.0
LOS by Move:    D    D     D     D    D     D     D    A     A     F    B     A
HCM2kAvgQ:      1    1     1     4    4    14    10   12    12     0   21     1
********************************************************************************
Note: Queue reported is the number of cars per lane.
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
          STATE HIGHWAY - 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #108 TUSTIN AVE/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.652
Loss Time (sec):       6                Average Delay (sec/veh):         6.5
Optimal Cycle:        37                Level Of Service:                  A
********************************************************************************
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        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  1  0    0  0  1! 0  0    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    1     2    57    0    28    98 1563    21     0 2470    54
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    1     2    57    0    28    98 1563    21     0 2470    54
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:    0    0     0     0    0     0     1  171     0     0  118     0
Initial Fut:    0    1     2    57    0    28    99 1734    21     0 2588    54
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:     0    1     2    57    0    28    99 1734    21     0 2588    54
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    1     2    57    0    28    99 1734    21     0 2588    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    1     2    57    0    28    99 1734    21     0 2588    54
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 0.91  0.91  0.76 1.00  0.76  0.95 0.95  0.95  1.00 0.91  0.85
Lanes:       0.00 0.33  0.67  0.67 0.00  0.33  1.00 1.98  0.02  1.00 3.00  1.00
Final Sat.:     0  576  1153   965    0   474  1805 3560    43  1900 5187  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.06 0.00  0.06  0.05 0.49  0.49  0.00 0.50  0.03
Crit Moves:                   ****             ****                  ****
Green/Cycle: 0.00 0.09  0.09  0.09 0.00  0.09  0.08 0.85  0.85  0.00 0.77  0.77
Volume/Cap:  0.00 0.02  0.02  0.65 0.00  0.65  0.65 0.57  0.57  0.00 0.65  0.04
Delay/Veh:    0.0 41.5  41.5  55.1  0.0  55.1  54.1  2.5   2.5   0.0  5.9   2.9
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 41.5  41.5  55.1  0.0  55.1  54.1  2.5   2.5   0.0  5.9   2.9
LOS by Move:    A    D     D     E    A     E     D    A     A     A    A     A
HCM2kAvgQ:      0    0     0     4    0     4     3    9     9     0   14     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
          STATE HIGHWAY - 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #109 BALBOA BAY DRIVEWAY/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.763
Loss Time (sec):       6                Average Delay (sec/veh):         5.7
Optimal Cycle:        51                Level Of Service:                  A
********************************************************************************
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        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  1! 0  0    0  0  1! 0  0    1  0  2  0  1    1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      33    0    37     9    0    12     4 1940    34    44 2280    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:   33    0    37     9    0    12     4 1940    34    44 2280    13
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:    0    0     0     0    0     0     0  171     0     0  118     0
Initial Fut:   33    0    37     9    0    12     4 2111    34    44 2398    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:     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:    33    0    37     9    0    12     4 2111    34    44 2398    13
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   33    0    37     9    0    12     4 2111    34    44 2398    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:   33    0    37     9    0    12     4 2111    34    44 2398    13
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.80 1.00  0.80  0.75 1.00  0.75  0.95 0.95  0.85  0.95 0.95  0.95
Lanes:       0.47 0.00  0.53  0.43 0.00  0.57  1.00 2.00  1.00  1.00 1.99  0.01
Final Sat.:   716    0   803   608    0   811  1805 3610  1615  1805 3587    19
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.05 0.00  0.05  0.01 0.00  0.01  0.00 0.58  0.02  0.02 0.67  0.67
Crit Moves:  ****                              ****                  ****
Green/Cycle: 0.06 0.00  0.06  0.06 0.00  0.06  0.00 0.84  0.84  0.04 0.88  0.88
Volume/Cap:  0.76 0.00  0.76  0.25 0.00  0.25  0.76 0.69  0.02  0.69 0.76  0.76
Delay/Veh:   77.0  0.0  77.0  46.3  0.0  46.3 273.4  3.6   1.2  75.7  3.4   3.4
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:  77.0  0.0  77.0  46.3  0.0  46.3 273.4  3.6   1.2  75.7  3.4   3.4
LOS by Move:    E    A     E     D    A     D     F    A     A     E    A     A
HCM2kAvgQ:      4    0     4     1    0     1     1   14     0     3   16    16
********************************************************************************
Note: Queue reported is the number of cars per lane.
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--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
          STATE HIGHWAY - 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #110 DOVER DR - BAY SHORE DR/COAST HWY
********************************************************************************
Cycle (sec):         100               Critical Vol./Cap.(X):         0.812
Loss Time (sec):       8               Average Delay (sec/veh):        23.7
Optimal Cycle:        68               Level Of Service:                  C
********************************************************************************
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       Protected        Protected
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:        1  0  1  1  0   3  0  1  0  1   2  0  2  1  0   1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     36   44   43   968   63  126   157 1439   26    52 2381 1088
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:  36   44   43   968   63  126   157 1439   26    52 2381 1088
Added Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Cumulatives:   0    0    0    54    0    5     2  169    0     0  113   31
Initial Fut:  36   44   43  1022   63  131   159 1608   26    52 2494 1119
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:   36   44   43  1022   63  131   159 1608   26    52 2494    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  36   44   43  1022   63  131   159 1608   26    52 2494    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:  36   44   43  1022   63  131   159 1608   26    52 2494    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.95 0.88 0.88  0.92 1.00 0.85  0.92 0.91 0.91  0.95 0.91 1.00
Lanes:       1.00 1.01 0.99  3.00 1.00 1.00  2.00 2.95 0.05  1.00 3.00 1.00
Final Sat.:  1805 1691 1652  5253 1900 1615  3502 5094   82  1805 5187 1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.03 0.03  0.19 0.03 0.08  0.05 0.32 0.32  0.03 0.48 0.00
Crit Moves:            ****  ****            ****                  ****
Green/Cycle: 0.03 0.03 0.03  0.24 0.24 0.24  0.06 0.59 0.59  0.05 0.59 0.00
Volume/Cap:  0.62 0.81 0.81  0.81 0.14 0.34  0.81 0.53 0.53  0.53 0.81 0.00
Delay/Veh:   66.9 83.7 83.7  40.0 30.0 32.0  68.7 12.2 12.2  51.5 17.7  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:  66.9 83.7 83.7  40.0 30.0 32.0  68.7 12.2 12.2  51.5 17.7  0.0
LOS by Move:    E    F    F     D    C    C     E    B    B     D    B    A
HCM2kAvgQ:      2    3    3    12    2    4     4   11   11     2   22    0
********************************************************************************
Note: Queue reported is the number of cars per lane.

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--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
          STATE HIGHWAY - 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
          2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #111 BAYSIDE DR/COAST HWY
********************************************************************************
Cycle (sec):         100               Critical Vol./Cap.(X):         0.688
Loss Time (sec):       8               Average Delay (sec/veh):        15.1
Optimal Cycle:        47               Level Of Service:                  B
********************************************************************************
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       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:        2  0  1! 0  0   1  0  0  1  0   1  0  3  0  1   1  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:    309    9   38    87    9   72    71 2108  402    88 3017   41
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: 309    9   38    87    9   72    71 2108  402    88 3017   41
Added Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Cumulatives:   7    0    0     0    0    0     0  219    4     0  137    0
Initial Fut: 316    9   38    87    9   72    71 2327  406    88 3154   41
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:  316    9   38    87    9   72    71 2327  406    88 3154   41
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 316    9   38    87    9   72    71 2327  406    88 3154   41
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: 316    9   38    87    9   72    71 2327  406    88 3154   41
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.91 0.94 0.94  0.95 0.87 0.87  0.95 0.91 0.85  0.95 0.91 0.85
Lanes:       2.70 0.06 0.24  1.00 0.11 0.89  1.00 3.00 1.00  1.00 4.00 1.00
Final Sat.:  4687  104  437  1805  183 1464  1805 5187 1615  1805 6916 1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.07 0.09 0.09  0.05 0.05 0.05  0.04 0.45 0.25  0.05 0.46 0.03
Crit Moves:            ****       ****            ****       ****
Green/Cycle: 0.13 0.13 0.13  0.07 0.07 0.07  0.06 0.65 0.65  0.07 0.67 0.67
Volume/Cap:  0.53 0.69 0.69  0.67 0.69 0.69  0.69 0.69 0.39  0.69 0.69 0.04
Delay/Veh:   41.8 45.6 45.6  58.6 61.2 61.2  63.7 11.6  8.3  60.1 10.8  5.8
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:  41.8 45.6 45.6  58.6 61.2 61.2  63.7 11.6  8.3  60.1 10.8  5.8
LOS by Move:    D    D    D     E    E    E     E    B    A     E    B    A
HCM2kAvgQ:      4    6    6     4    4    4     2   16    6     3   16    0
********************************************************************************
Note: Queue reported is the number of cars per lane.

  Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to RBF CONSULTING, IRVINE
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
          STATE HIGHWAY - 2013 CUMULATIVE WITHOUT PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #112 JAMBOREE RD/COAST HWY
********************************************************************************
Cycle (sec):         100               Critical Vol./Cap.(X):         0.835
Loss Time (sec):       8               Average Delay (sec/veh):        32.6
Optimal Cycle:        74               Level Of Service:                  C
********************************************************************************
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          Ignore           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:        1  0  1  1  0    1  0  2  0  1    3  0  3  1  0    2  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      36  253    90   214  447  1292   859 1375    20   208 2070   160
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:   36  253    90   214  447  1292   859 1375    20   208 2070   160
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Cumulatives:    6    0     0   117    1     0    21  192     6     0  132    93
Initial Fut:   42  253    90   331  448  1292   880 1567    26   208 2202   253
User Adj:    1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Volume:    42  253    90   331  448     0   880 1567    26   208 2202     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   42  253    90   331  448     0   880 1567    26   208 2202     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  0.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
FinalVolume:   42  253    90   331  448     0   880 1567    26   208 2202     0
------------|---------------||---------------||---------------||---------------|
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 0.95  1.00  0.92 0.91  0.91  0.92 0.91  1.00
Lanes:       1.00 1.48  0.52  1.00 2.00  1.00  3.00 3.93  0.07  2.00 4.00  1.00
Final Sat.:  1805 2559   910  1805 3610  1900  5253 6790   113  3502 6916  1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.10  0.10  0.18 0.12  0.00  0.17 0.23  0.23  0.06 0.32  0.00
Crit Moves:       ****        ****             ****                  ****
Green/Cycle: 0.05 0.12  0.12  0.22 0.28  0.00  0.20 0.46  0.46  0.12 0.38  0.00
Volume/Cap:  0.44 0.83  0.83  0.83 0.44  0.00  0.83 0.50  0.50  0.50 0.83  0.00
Delay/Veh:   49.0 56.9  56.9  51.5 29.5   0.0  44.3 18.9  18.9  42.2 30.5   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:  49.0 56.9  56.9  51.5 29.5   0.0  44.3 18.9  18.9  42.2 30.5   0.0
LOS by Move:    D    E     E     D    C     A     D    B     B     D    C     A
HCM2kAvgQ:      2    8     8    12    6     0     9    9     9     4   19     0
********************************************************************************
```

State Highway - Forecast Cumulative With Project Conditions

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
            STATE HIGHWAY - 2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                            Turning Movement Report
                                    PROJ-AM

Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume

#101 IRVINE AVE/DOVER DR
Base     77  746    18   197  657    33    54  139    59    20  110   265   2375
Added     0    0     0     1    1     0     0    0     0     0    0     0      2
Cumula    0    0     0     0    0     0     0   13     0     0   46     0     59
Total    77  746    18   198  658    33    54  152    59    20  156   265   2436

#102 IRVINE AVE/17TH ST
Base    323  547    27   220  448   143   208  495   205    28  322    60   3026
Added     0    0     0     1    0     0     0    1     0     0    0     0      2
Cumula    0    0     0     0    0     0     0    3     0     0    9     0     12
Total   323  547    27   221  448   143   208  499   205    28  331    60   3040

#103 DOVER DR/WESTCLIFF DR
Base    355  453     0     0  388    58    85    0   585     0    0     0   1924
Added     0    0     0     0    1     0     0    0     2     0    0     0      3
Cumula    9   46     0     0   13     0     0    0     3     0    0     0     71
Total   364  499     0     0  402    58    85    0   590     0    0     0   1998

#104 DOVER DR/16TH ST
Base    123  677    31    41 1030    57    45   20   177    64   16    58   2339
Added     0    1     0     0    3     0     0    0     1     0    0     0      5
Cumula    0   55     0     0   16     0     0    0     0     0    0     0     71
Total   123  733    31    41 1049    57    45   20   178    64   16    58   2415

#105 DOVER DR/CLIFF DR
Base    120  717     0     0 1016   249   112    0   159     0    0     0   2373
Added     0    1     0     0    4     0     0    0     1     0    0     0      6
Cumula    0   55     0     0   16     0     0    0     0     0    0     0     71
Total   120  773     0     0 1036   249   112    0   160     0    0     0   2450

#106 NEWPORT BLVD/COAST HWY
Base      0    0     0   424    0   335     0 2197   200     0  891   365   4412
Added     0    0     0     1    0     0     0    1     0     0    0     0      2
Cumula    0    0     0    15    0    40     0  167     6     0  113     5    346
Total     0    0     0   440    0   375     0 2365   206     0 1004   370   4760

#107 RIVERSIDE AVE/COAST HWY
Base      0    0     1    80    4   316   325 2095     4    18 1263    70   4176
Added     0    0     0     1    0     0     0    4     0     0    1     0      6
Cumula    0    0     0     0    0     1     0   57     0     0  171     0    229
Total     0    0     1    81    4   317   325 2156     4    18 1435    70   4411
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
            STATE HIGHWAY - 2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume


#108 TUSTIN AVE/COAST HWY
Base      0    0     0    34    1    15    44 2202     1     1 1363    36   3697
Added     0    0     0     0    0     0     0    5     0     0    1     0      6
Cumula    0    0     0     0    0     1     0   57     0     0  164     0    222
Total     0    0     0    34    1    16    44 2264     1     1 1528    36   3925

#109 BALBOA BAY DRIVEWAY/COAST HWY
Base     27    0    27     1    3     1     5 2072    40    62 1547    11   3796
Added     0    0     0     0    0     0     0    5     0     2    1     0      8
Cumula    0    0     0     0    0     0     0   57     0     0  164     0    221
Total    27    0    27     1    3     1     5 2134    40    64 1712    11   4025

#110 DOVER DR - BAY SHORE DR/COAST HWY
Base     17   63    30   893   53   117   126 2109    26    44 1344   497   5319
Added     0    0     0     0    0     5     6    1     0     0    3     0     15
Cumula    0    0     0    15    0     1     3   53     0     0  164    52    288
Total    17   63    30   908   53   123   135 2163    26    44 1511   549   5622

#111 BAYSIDE DR/COAST HWY
Base    326    7    39    62    8    55    83 2385   361    58 1600    16   5000
Added     1    0     0     0    0     0     0    0     0     0    2     0      3
Cumula    2    0     0     0    0     0     0   63     0     0  214     0    279
Total   329    7    39    62    8    55    83 2448   361    58 1816    16   5282

#112 JAMBOREE RD/COAST HWY
Base     26  365   105   155  237   751   937 1692    22   104 1030    80   5504
Added     0    0     0     0    0     1     0    0     0     0    1     0      2
Cumula    8    2     0    55    0    19     0   71     3     0  187   112    457
Total    34  367   105   210  237   771   937 1763    25   104 1218   192   5963
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--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
             STATE HIGHWAY - 2013 CUMULATIVE WITH PROJECT CONDITIONS
                                AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #106 NEWPORT BLVD/COAST HWY
********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):         0.944
Loss Time (sec):       6              Average Delay (sec/veh):        23.3
Optimal Cycle:       128              Level Of Service:                  C
********************************************************************************
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       Protected        Protected
Rights:          Include          Include          Ignore           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  0  0  0    2  0  0  0  1    0  0  2  0  1    0  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      0    0    0  424    0  335    0 2197  200    0  891  365
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  424    0  335    0 2197  200    0  891  365
Added Vol:     0    0    0    1    0    0    0    1    0    0    0    0
Cumulatives:   0    0    0   15    0   40    0  167    6    0  113    5
Initial Fut:   0    0    0  440    0  375    0 2365  206    0 1004  370
User 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
PHF 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
PHF Volume:    0    0    0  440    0  375    0 2365    0    0 1004    0
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   0    0    0  440    0  375    0 2365    0    0 1004    0
PCE 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
MLF 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
FinalVolume:   0    0    0  440    0  375    0 2365    0    0 1004    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  1.00 1.00 1.00 0.92 1.00 0.85 1.00 0.95 1.00 1.00 0.91 1.00
Lanes:       0.00 0.00 0.00 2.00 0.00 1.00 0.00 2.00 1.00 0.00 3.00 1.00
Final Sat.:    0    0    0 3502    0 1615    0 3610 1900    0 5187 1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00 0.00 0.13 0.00 0.23 0.00 0.66 0.00 0.00 0.19 0.00
Crit Moves:                             ****       ****           ****
Green/Cycle: 0.00 0.00 0.00 0.25 0.00 0.25 0.00 0.69 0.00 0.00 0.69 0.00
Volume/Cap:  0.00 0.00 0.00 0.51 0.00 0.94 0.00 0.94 0.00 0.00 0.28 0.00
Delay/Veh:    0.0  0.0  0.0 33.0  0.0 68.1  0.0 21.9  0.0  0.0  5.8  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  0.0  0.0 33.0  0.0 68.1  0.0 21.9  0.0  0.0  5.8  0.0
LOS by Move:   A    A    A    C    A    E    A    C    A    A    A    A
HCM2kAvgQ:     0    0    0    6    0   16    0   39    0    0    4    0
********************************************************************************
Note: Queue reported is the number of cars per lane.
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--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
             STATE HIGHWAY - 2013 CUMULATIVE WITH PROJECT CONDITIONS
                                AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #107 RIVERSIDE AVE/COAST HWY
********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):         0.713
Loss Time (sec):       6              Average Delay (sec/veh):        12.7
Optimal Cycle:        44              Level Of Service:                  B
********************************************************************************
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        Protected        Protected
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:       0  0  0  0  1    0  1  0  0  1    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      0    0    1   80    4  316  325 2095    4   18 1263   70
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    1   80    4  316  325 2095    4   18 1263   70
Added Vol:     0    0    0    1    0    0    0    4    0    0    1    0
Cumulatives:   0    0    0    0    0    1    0   57    0    0  171    0
Initial Fut:   0    0    1   81    4  317  325 2156    4   18 1435   70
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:    0    0    1   81    4  317  325 2156    4   18 1435   70
Reduct Vol:    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   0    0    1   81    4  317  325 2156    4   18 1435   70
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    1   81    4  317  325 2156    4   18 1435   70
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  1.00 1.00 0.87 0.73 0.73 0.85 0.95 0.95 0.95 0.95 0.91 0.85
Lanes:       0.00 0.00 1.00 0.95 0.05 1.00 1.00 1.99 0.01 1.00 3.00 1.00
Final Sat.:    0    0 1644 1313   65 1615 1805 3603    7 1805 5187 1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00 0.00 0.06 0.06 0.20 0.18 0.60 0.60 0.01 0.28 0.04
Crit Moves:                        ****           ****      ****
Green/Cycle: 0.00 0.00 0.09 0.09 0.09 0.42 0.34 0.84 0.84 0.01 0.52 0.52
Volume/Cap:  0.00 0.00 0.01 0.71 0.71 0.46 0.54 0.71 0.71 0.71 0.54 0.08
Delay/Veh:    0.0  0.0 41.8 62.8 62.8 21.2 27.8  4.0  4.0 114.6 16.3 12.2
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 41.8 62.8 62.8 21.2 27.8  4.0  4.0 114.6 16.3 12.2
LOS by Move:   A    A    D    E    E    C    C    A    A    F    B    B
HCM2kAvgQ:     0    0    0    4    4    7    8   15   15    1   11    1
********************************************************************************
Note: Queue reported is the number of cars per lane.
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--------------------------------------------------------------------------------
                       MARINERS POINTE - 10-107807
           STATE HIGHWAY - 2013 CUMULATIVE WITH PROJECT CONDITIONS
                              AM PEAK HOUR
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #108 TUSTIN AVE/COAST HWY
********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):         0.701
Loss Time (sec):       6              Average Delay (sec/veh):         3.7
Optimal Cycle:        42              Level Of Service:                  A
********************************************************************************
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        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  1! 0  0    0  0  1! 0  0    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0    34    1    15    44 2202     1     1 1363    36
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    34    1    15    44 2202     1     1 1363    36
Added Vol:      0    0     0     0    0     0     0    5     0     0    1     0
Cumulatives:    0    0     0     0    0     1     0   57     0     0  164     0
Initial Fut:    0    0     0    34    1    16    44 2264     1     1 1528    36
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:     0    0     0    34    1    16    44 2264     1     1 1528    36
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0    34    1    16    44 2264     1     1 1528    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:    0    0     0    34    1    16    44 2264     1     1 1528    36
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 1.00  1.00  0.87 0.87  0.87  0.95 0.95  0.95  0.95 0.91  0.85
Lanes:       0.00 1.00  0.00  0.67 0.02  0.31  1.00 1.99  0.01  1.00 3.00  1.00
Final Sat.:     0 1900     0  1104   32   520  1805 3608     2  1805 5187  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.03 0.03  0.03  0.02 0.63  0.63  0.00 0.29  0.02
Crit Moves:                        ****              ****          ****
Green/Cycle: 0.00 0.00  0.00  0.04 0.04  0.04  0.07 0.90  0.90  0.00 0.83  0.83
Volume/Cap:  0.00 0.00  0.00  0.70 0.70  0.70  0.36 0.70  0.70  0.70 0.36  0.03
Delay/Veh:    0.0  0.0   0.0  73.4 73.4  73.4  46.2  2.2   2.2 451.5  2.2   1.5
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  0.0   0.0  73.4 73.4  73.4  46.2  2.2   2.2 451.5  2.2   1.5
LOS by Move:    A    A     A     E    E     E     D    A     A     F    A     A
HCM2kAvgQ:      0    0     0     3    3     3     1   11    11     0    4     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
```

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--------------------------------------------------------------------------------
                       MARINERS POINTE - 10-107807
           STATE HIGHWAY - 2013 CUMULATIVE WITH PROJECT CONDITIONS
                              AM PEAK HOUR
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
           2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #109 BALBOA BAY DRIVEWAY/COAST HWY
********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):         0.706
Loss Time (sec):       6              Average Delay (sec/veh):         5.0
Optimal Cycle:        43              Level Of Service:                  A
********************************************************************************
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        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  1! 0  0    0  0  1! 0  0    1  0  2  0  1    1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      27    0    27     1    3     1     5 2072    40    62 1547    11
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:   27    0    27     1    3     1     5 2072    40    62 1547    11
Added Vol:      0    0     0     0    0     0     0    5     0     2    1     0
Cumulatives:    0    0     0     0    0     0     0   57     0     0  164     0
Initial Fut:   27    0    27     1    3     1     5 2134    40    64 1712    11
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:    27    0    27     1    3     1     5 2134    40    64 1712    11
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   27    0    27     1    3     1     5 2134    40    64 1712    11
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:   27    0    27     1    3     1     5 2134    40    64 1712    11
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.78 1.00  0.78  0.91 0.91  0.91  0.95 0.95  0.85  0.95 0.95  0.95
Lanes:       0.50 0.00  0.50  0.20 0.60  0.20  1.00 2.00  1.00  1.00 1.99  0.01
Final Sat.:   737    0   737   347 1040   347  1805 3610  1615  1805 3583    23
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.00  0.04  0.00 0.00  0.00  0.00 0.59  0.02  0.04 0.48  0.48
Crit Moves:  ****                                    ****          ****
Green/Cycle: 0.05 0.00  0.05  0.05 0.05  0.05  0.01 0.84  0.84  0.05 0.88  0.88
Volume/Cap:  0.71 0.00  0.71  0.06 0.06  0.06  0.54 0.71  0.03  0.71 0.54  0.54
Delay/Veh:   72.5  0.0  72.5  45.3 45.3  45.3 102.0  4.0   1.4  69.1  1.5   1.5
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:  72.5  0.0  72.5  45.3 45.3  45.3 102.0  4.0   1.4  69.1  1.5   1.5
LOS by Move:    E    A     E     D    D     D     F    A     A     E    A     A
HCM2kAvgQ:      3    0     3     0    0     0     1   15     0     3    7     7
********************************************************************************
Note: Queue reported is the number of cars per lane.
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2013CUML-WP-AM           Mon Jan 31, 2011 09:42:51                 Page 7-1
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
            STATE HIGHWAY - 2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                       Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #110 DOVER DR - BAY SHORE DR/COAST HWY
********************************************************************************
Cycle (sec):         100               Critical Vol./Cap.(X):         0.703
Loss Time (sec):       8               Average Delay (sec/veh):        21.1
Optimal Cycle:        49               Level Of Service:                  C
********************************************************************************
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        Protected        Protected
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:       1  0  1  1  0    3  0  1  0  1    2  0  2  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     17   63   30    893   53  117    126 2109   26     44 1344  497
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:  17   63   30    893   53  117    126 2109   26     44 1344  497
Added Vol:     0    0    0      0    0    5      6    1    0      0    3    0
Cumulatives:   0    0    0     15    0    1      3   53    0      0  164   52
Initial Fut:  17   63   30    908   53  123    135 2163   26     44 1511  549
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:   17   63   30    908   53  123    135 2163   26     44 1511    0
Reduct Vol:    0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:  17   63   30    908   53  123    135 2163   26     44 1511    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:  17   63   30    908   53  123    135 2163   26     44 1511    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900   1900 1900 1900   1900 1900 1900   1900 1900 1900
Adjustment: 0.95 0.90 0.90   0.92 1.00 0.85   0.92 0.91 0.91   0.95 0.91 1.00
Lanes:      1.00 1.35 0.65   3.00 1.00 1.00   2.00 2.96 0.04   1.00 3.00 1.00
Final Sat.: 1805 2328 1109   5253 1900 1615   3502 5115   61   1805 5187 1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.01 0.03 0.03   0.17 0.03 0.08   0.04 0.42 0.42   0.02 0.29 0.00
Crit Moves:           ****   ****                  ****          ****
Green/Cycle: 0.04 0.04 0.04  0.25 0.25 0.25   0.07 0.60 0.60   0.03 0.56 0.00
Volume/Cap: 0.24 0.70 0.70   0.70 0.11 0.31   0.52 0.70 0.70   0.70 0.52 0.00
Delay/Veh:  48.5 63.3 63.3   36.2 29.4 31.2   46.4 14.5 14.5   78.1 13.7  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: 48.5 63.3 63.3   36.2 29.4 31.2   46.4 14.5 14.5   78.1 13.7  0.0
LOS by Move:   D    E    E      D    C    C      D    B    B      E    B    A
HCM2kAvgQ:     1    3    3     10    1    3      3   18   18      1   10    0
********************************************************************************
Note: Queue reported is the number of cars per lane.

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2013CUML-WP-AM           Mon Jan 31, 2011 09:42:51                 Page 8-1
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
            STATE HIGHWAY - 2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                       Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #111 BAYSIDE DR/COAST HWY
********************************************************************************
Cycle (sec):         100               Critical Vol./Cap.(X):         0.686
Loss Time (sec):       8               Average Delay (sec/veh):        14.2
Optimal Cycle:        47               Level Of Service:                  B
********************************************************************************
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        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:       2  0  1! 0  0    1  0  0  1  0    1  0  3  0  1    1  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:    326    7   39     62    8   55     83 2385  361     58 1600   16
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: 326    7   39     62    8   55     83 2385  361     58 1600   16
Added Vol:     1    0    0      0    0    0      0    0    0      0    2    0
Cumulatives:   2    0    0      0    0    0      0   63    0      0  214    0
Initial Fut: 329    7   39     62    8   55     83 2448  361     58 1816   16
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:  329    7   39     62    8   55     83 2448  361     58 1816   16
Reduct Vol:    0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol: 329    7   39     62    8   55     83 2448  361     58 1816   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: 329    7   39     62    8   55     83 2448  361     58 1816   16
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900 1900   1900 1900 1900   1900 1900 1900   1900 1900 1900
Adjustment: 0.91 0.94 0.94   0.95 0.87 0.87   0.95 0.91 0.85   0.95 0.91 0.85
Lanes:      2.71 0.04 0.25   1.00 0.13 0.87   1.00 3.00 1.00   1.00 4.00 1.00
Final Sat.: 4710   79  439   1805  210 1441   1805 5187 1615   1805 6916 1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.07 0.09 0.09   0.03 0.04 0.04   0.05 0.47 0.22   0.03 0.26 0.01
Crit Moves:           ****        ****             ****          ****
Green/Cycle: 0.13 0.13 0.13  0.06 0.06 0.06   0.11 0.69 0.69   0.05 0.63 0.63
Volume/Cap: 0.54 0.69 0.69   0.62 0.69 0.69   0.42 0.69 0.32   0.69 0.42 0.02
Delay/Veh:  41.6 45.2 45.2   57.3 65.8 65.8   43.0  9.8  6.4   67.9  9.6  7.1
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: 41.6 45.2 45.2   57.3 65.8 65.8   43.0  9.8  6.4   67.9  9.6  7.1
LOS by Move:   D    D    D      E    E    E      D    A    A      E    A    A
HCM2kAvgQ:     4    6    6      3    3    3      2   16    4      2    7    0
********************************************************************************
Note: Queue reported is the number of cars per lane.

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
            STATE HIGHWAY - 2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 AM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #112 JAMBOREE RD/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.659
Loss Time (sec):       8                Average Delay (sec/veh):        29.0
Optimal Cycle:        44                Level Of Service:                  C
********************************************************************************
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          Ignore           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:        1  0  1  1  0    1  0  2  0  1    3  0  3  1  0    2  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      26  365   105   155  237   751   937 1692    22   104 1030    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:   26  365   105   155  237   751   937 1692    22   104 1030    80
Added Vol:      0    0     0     0    0     1     0    0     0     0    1     0
Cumulatives:    8    2     0    55    0    19     0   71     3     0  187   112
Initial Fut:   34  367   105   210  237   771   937 1763    25   104 1218   192
User Adj:    1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Volume:    34  367   105   210  237     0   937 1763    25   104 1218     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   34  367   105   210  237     0   937 1763    25   104 1218     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  0.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
FinalVolume:   34  367   105   210  237     0   937 1763    25   104 1218     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.95 0.92  0.92  0.95 0.95  1.00  0.92 0.91  0.91  0.92 0.91  1.00
Lanes:       1.00 1.56  0.44  1.00 2.00  1.00  3.00 3.94  0.06  2.00 4.00  1.00
Final Sat.:  1805 2714   777  1805 3610  1900  5253 6806    97  3502 6916  1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.14  0.14  0.12 0.07  0.00  0.18 0.26  0.26  0.03 0.18  0.00
Crit Moves:       ****        ****             ****                    ****
Green/Cycle: 0.09 0.21  0.21  0.18 0.30  0.00  0.27 0.48  0.48  0.06 0.27  0.00
Volume/Cap:  0.22 0.66  0.66  0.66 0.22  0.00  0.66 0.54  0.54  0.54 0.66  0.00
Delay/Veh:   43.4 38.8  38.8  43.4 26.6   0.0  33.5 18.2  18.2  48.9 33.5   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:  43.4 38.8  38.8  43.4 26.6   0.0  33.5 18.2  18.2  48.9 33.5   0.0
LOS by Move:    D    D     D     D    C     A     C    B     B     D    C     A
HCM2kAvgQ:      1    8     8     7    3     0     9   10    10     2   10     0
********************************************************************************
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--------------------------------------------------------------------------------
                      MARINERS POINTE - 10-107807
        STATE HIGHWAY - 2013 CUMULATIVE WITH PROJECT CONDITIONS
                               PM PEAK HOUR
--------------------------------------------------------------------------------
                         Turning Movement Report
                                 PROJ-PM

Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume

#101 IRVINE AVE/DOVER DR
Base     94  766     3   221 1256    81    65  133    70    39  155   264   3147
Added     0    2     0     2    2     0     0    0     0     0    0     2      8
Cumula    0    0     0     0    0     0     0   50     0     0   28     0     78
Total    94  768     3   223 1258    81    65  183    70    39  183   266   3233

#102 IRVINE AVE/17TH ST
Base    312  448    49   147  537   350   326  610   240   101  699    68   3887
Added     0    0     0     2    0     0     0    5     0     0    4     2     13
Cumula    0    0     0     0    0     0     0    9     0     0    5     0     14
Total   312  448    49   149  537   350   326  624   240   101  708    70   3914

#103 DOVER DR/WESTCLIFF DR
Base    604  588     0     0  324    65   119    0   567     0    0     0   2267
Added     5    4     0     0    5     0     0    0     7     0    0     0     21
Cumula    5   28     0     0   50     0     0    0     9     0    0     0     92
Total   614  620     0     0  379    65   119    0   583     0    0     0   2380

#104 DOVER DR/16TH ST
Base    127 1072    42    69  925    21    22   25   125    22   12    56   2518
Added     2    9     0     0   12     0     0    0     2     0    0     0     25
Cumula    0   33     0     0   59     0     0    0     0     0    0     0     92
Total   129 1114    42    69  996    21    22   25   127    22   12    56   2635

#105 DOVER DR/CLIFF DR
Base    128 1242     0     0 1079    63    50    0   120     0    0     0   2682
Added     4   11     0     0   14     0     0    0     5     0    0     0     34
Cumula    0   33     0     0   59     0     0    0     0     0    0     0     92
Total   132 1286     0     0 1152    63    50    0   125     0    0     0   2808

#106 NEWPORT BLVD/COAST HWY
Base      0    0     0   648    0   428     0 1399   172     0 1946   518   5111
Added     0    0     0     5    0     0     0    5     0     0    4     0     14
Cumula    0    0     0    55    0   156     0  208     4     0   80     2    505
Total     0    0     0   708    0   584     0 1612   176     0 2030   520   5630

#107 RIVERSIDE AVE/COAST HWY
Base     10   11     2   102    2   420   254 1560     5    11 2391    76   4844
Added     0    0     0     2    0     0     0   14     0     0   11     2     29
Cumula    0    0     0     0    0     0     1  172     0     0  118     0    291
Total    10   11     2   104    2   420   255 1746     5    11 2520    78   5164
```

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--------------------------------------------------------------------------------
                      MARINERS POINTE - 10-107807
        STATE HIGHWAY - 2013 CUMULATIVE WITH PROJECT CONDITIONS
                               PM PEAK HOUR
--------------------------------------------------------------------------------
Volume    Northbound       Southbound       Eastbound        Westbound     Total
Type   Left Thru Right  Left Thru Right  Left Thru Right  Left Thru Right Volume


#108 TUSTIN AVE/COAST HWY
Base      0    1     2    57    0    28    98 1563    21     0 2470    54   4294
Added     0    0     0     0    0     0     0   17     0     0   13     0     30
Cumula    0    0     0     0    0     0     1  171     0     0  118     0    290
Total     0    1     2    57    0    28    99 1751    21     0 2601    54   4614

#109 BALBOA BAY DRIVEWAY/COAST HWY
Base     33    0    37     9    0    12     4 1940    34    44 2280    13   4406
Added     0    0     0     0    0     0     0   17     0    23   13     0     53
Cumula    0    0     0     0    0     0     0  171     0     0  118     0    289
Total    33    0    37     9    0    12     4 2128    34    67 2411    13   4748

#110 DOVER DR - BAY SHORE DR/COAST HWY
Base     36   44    43   968   63   126   157 1439    26    52 2381  1088   6423
Added     0    0     0     0    0    19    31    9     0     0   12     0     71
Cumula    0    0     0    54    0     5     2  169     0     0  113    31    374
Total    36   44    43  1022   63   150   190 1617    26    52 2506  1119   6868

#111 BAYSIDE DR/COAST HWY
Base    309    9    38    87    9    72    71 2108   402    88 3017    41   6251
Added     5    0     0     0    0     0     0    5     4     0    7     0     21
Cumula    7    0     0     0    0     0     0  219     4     0  137     0    367
Total   321    9    38    87    9    72    71 2332   410    88 3161    41   6639

#112 JAMBOREE RD/COAST HWY
Base     36  253    90   214  447  1292   859 1375    20   208 2070   160   7024
Added     0    0     0     0    0     2     2    4     0     0    5     0     13
Cumula    6    0     0   117    1     0    21  192     6     0  132    93    568
Total    42  253    90   331  448  1294   882 1571    26   208 2207   253   7605
```

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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
              STATE HIGHWAY - 2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------

                      Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #106 NEWPORT BLVD/COAST HWY
********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):         0.860
Loss Time (sec):       6              Average Delay (sec/veh):        24.0
Optimal Cycle:        75              Level Of Service:                  C
********************************************************************************
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       Protected        Protected
Rights:           Include          Include          Ignore           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  0  0  0    2  0  0  0  1    0  0  2  0  1    0  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      0    0    0   648    0  428     0 1399  172     0 1946  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    0    0   648    0  428     0 1399  172     0 1946  518
Added Vol:     0    0    0     5    0    0     0    5    0     0    4    0
Cumulatives:   0    0    0    55    0  156     0  208    4     0   80    2
Initial Fut:   0    0    0   708    0  584     0 1612  176     0 2030  520
User 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
PHF 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
PHF Volume:    0    0    0   708    0  584     0 1612    0     0 2030    0
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   0    0    0   708    0  584     0 1612    0     0 2030    0
PCE 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
MLF 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
FinalVolume:   0    0    0   708    0  584     0 1612    0     0 2030    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  1.00 1.00 1.00  0.92 1.00 0.85  1.00 0.95 1.00  1.00 0.91 1.00
Lanes:       0.00 0.00 0.00  2.00 0.00 1.00  0.00 2.00 1.00  0.00 3.00 1.00
Final Sat.:    0    0    0  3502    0 1615     0 3610 1900     0 5187 1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00 0.00  0.20 0.00 0.36  0.00 0.45 0.00  0.00 0.39 0.00
Crit Moves:                            ****        ****         ****
Green/Cycle: 0.00 0.00 0.00  0.42 0.00 0.42  0.00 0.52 0.00  0.00 0.52 0.00
Volume/Cap:  0.00 0.00 0.00  0.48 0.00 0.86  0.00 0.86 0.00  0.00 0.75 0.00
Delay/Veh:    0.0  0.0  0.0  21.3  0.0 37.1   0.0 25.1  0.0   0.0 20.2  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  0.0  0.0  21.3  0.0 37.1   0.0 25.1  0.0   0.0 20.2  0.0
LOS by Move:    A    A    A     C    A    D     A    C    A     A    C    A
HCM2kAvgQ:      0    0    0     8    0   19     0   25    0     0   19    0
********************************************************************************
Note: Queue reported is the number of cars per lane.
```

```
--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
              STATE HIGHWAY - 2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------

                      Level Of Service Computation Report
              2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #107 RIVERSIDE AVE/COAST HWY
********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):         0.794
Loss Time (sec):       6              Average Delay (sec/veh):        16.6
Optimal Cycle:        57              Level Of Service:                  B
********************************************************************************
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        Protected        Protected
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:       0  0  1! 0  0    0  1  0  0  1    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     10   11    2   102    2  420   254 1560    5    11 2391   76
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   11    2   102    2  420   254 1560    5    11 2391   76
Added Vol:     0    0    0     2    0    0     0   14    0     0   11    2
Cumulatives:   0    0    0     0    0    0     1  172    0     0  118    0
Initial Fut:  10   11    2   104    2  420   255 1746    5    11 2520   78
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:   10   11    2   104    2  420   255 1746    5    11 2520   78
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  10   11    2   104    2  420   255 1746    5    11 2520   78
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   11    2   104    2  420   255 1746    5    11 2520   78
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.91 0.91 0.91  0.73 0.73 0.85  0.95 0.95 0.95  0.95 0.91 0.85
Lanes:       0.43 0.48 0.09  0.98 0.02 1.00  1.00 1.99 0.01  1.00 3.00 1.00
Final Sat.:   748  823  150  1353   26 1615  1805 3600   10  1805 5187 1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.01 0.01  0.08 0.08 0.26  0.14 0.49 0.49  0.01 0.49 0.05
Crit Moves:                            **** ****                     ****
Green/Cycle: 0.15 0.15 0.15  0.15 0.15 0.33  0.18 0.78 0.78  0.01 0.61 0.61
Volume/Cap:  0.09 0.09 0.09  0.51 0.51 0.79  0.79 0.62 0.62  0.62 0.79 0.08
Delay/Veh:   36.8 36.8 36.8  41.4 41.4 38.6  52.0  5.1  5.1 102.1 16.1  7.9
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:  36.8 36.8 36.8  41.4 41.4 38.6  52.0  5.1  5.1 102.1 16.1  7.9
LOS by Move:    D    D    D     D    D    D     D    A    A     F    B    A
HCM2kAvgQ:      1    1    1     4    4   14    10   13   13     0   21    1
********************************************************************************
Note: Queue reported is the number of cars per lane.
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--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
            STATE HIGHWAY - 2013 CUMULATIVE WITH PROJECT CONDITIONS
                                PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #108 TUSTIN AVE/COAST HWY
********************************************************************************
Cycle (sec):        100              Critical Vol./Cap.(X):        0.655
Loss Time (sec):      6              Average Delay (sec/veh):        6.5
Optimal Cycle:       37              Level Of Service:                 A
********************************************************************************
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        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  1  0    0  0  1! 0  0    1  0  1  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      0    1     2   57    0    28   98 1563    21    0 2470    54
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    1     2   57    0    28   98 1563    21    0 2470    54
Added Vol:     0    0     0    0    0     0    0   17     0    0   13     0
Cumulatives:   0    0     0    0    0     0    1  171     0    0  118     0
Initial Fut:   0    1     2   57    0    28   99 1751    21    0 2601    54
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:    0    1     2   57    0    28   99 1751    21    0 2601    54
Reduct Vol:    0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:   0    1     2   57    0    28   99 1751    21    0 2601    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    1     2   57    0    28   99 1751    21    0 2601    54
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900
Adjustment:  1.00 0.91  0.91 0.76 1.00  0.76 0.95 0.95  0.95 1.00 0.91  0.85
Lanes:       0.00 0.33  0.67 0.67 0.00  0.33 1.00 1.98  0.02 1.00 3.00  1.00
Final Sat.:    0  576  1153  965    0   474 1805 3560    43 1900 5187  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00 0.06 0.00  0.06 0.05 0.49  0.49 0.00 0.50  0.03
Crit Moves:                  ****             ****                  ****
Green/Cycle: 0.00 0.09  0.09 0.09 0.00  0.09 0.08 0.85  0.85 0.00 0.77  0.77
Volume/Cap:  0.00 0.02  0.02 0.65 0.00  0.65 0.65 0.58  0.58 0.00 0.65  0.04
Delay/Veh:    0.0 41.5  41.5 55.4  0.0  55.4 54.3  2.5   2.5  0.0  5.9   2.8
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:   0.0 41.5  41.5 55.4  0.0  55.4 54.3  2.5   2.5  0.0  5.9   2.8
LOS by Move:    A    D     D    E    A     E    D    A     A    A    A     A
HCM2kAvgQ:      0    0     0    4    0     4    3    9     9    0   14     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
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--------------------------------------------------------------------------------
                         MARINERS POINTE - 10-107807
            STATE HIGHWAY - 2013 CUMULATIVE WITH PROJECT CONDITIONS
                                PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #109 BALBOA BAY DRIVEWAY/COAST HWY
********************************************************************************
Cycle (sec):        100              Critical Vol./Cap.(X):        0.766
Loss Time (sec):      6              Average Delay (sec/veh):        6.3
Optimal Cycle:       52              Level Of Service:                 A
********************************************************************************
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        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  1! 0  0    0  0  1! 0  0    1  0  2  0  1    1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     33    0    37    9    0    12    4 1940    34   44 2280    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:  33    0    37    9    0    12    4 1940    34   44 2280    13
Added Vol:     0    0     0    0    0     0    0   17     0   23   13     0
Cumulatives:   0    0     0    0    0     0    0  171     0    0  118     0
Initial Fut:  33    0    37    9    0    12    4 2128    34   67 2411    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:     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:   33    0    37    9    0    12    4 2128    34   67 2411    13
Reduct Vol:    0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:  33    0    37    9    0    12    4 2128    34   67 2411    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:  33    0    37    9    0    12    4 2128    34   67 2411    13
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900
Adjustment:  0.80 1.00  0.80 0.75 1.00  0.75 0.95 0.95  0.85 0.95 0.95  0.95
Lanes:       0.47 0.00  0.53 0.43 0.00  0.57 1.00 2.00  1.00 1.00 1.99  0.01
Final Sat.:   716    0   803  607    0   810 1805 3610  1615 1805 3587    19
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.05 0.00  0.05 0.01 0.00  0.01 0.00 0.59  0.02 0.04 0.67  0.67
Crit Moves:  ****                            ****                  ****
Green/Cycle: 0.06 0.00  0.06 0.06 0.00  0.06 0.00 0.83  0.83 0.05 0.88  0.88
Volume/Cap:  0.77 0.00  0.77 0.25 0.00  0.25 0.77 0.71  0.03 0.71 0.77  0.77
Delay/Veh:   77.8  0.0  77.8 46.4  0.0  46.4 276.6  4.4   1.5 69.1  3.5   3.5
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:  77.8  0.0  77.8 46.4  0.0  46.4 276.6  4.4   1.5 69.1  3.5   3.5
LOS by Move:    E    A     E    D    A     D    F    A     A    E    A     A
HCM2kAvgQ:      4    0     4    1    0     1    1   15     0    3   16    16
********************************************************************************
Note: Queue reported is the number of cars per lane.
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
            STATE HIGHWAY - 2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #110 DOVER DR - BAY SHORE DR/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.824
Loss Time (sec):       8                Average Delay (sec/veh):        24.4
Optimal Cycle:        71                Level Of Service:                  C
********************************************************************************
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       Protected        Protected
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:        1  0  1  1  0    3  0  1  0  1    2  0  2  1  0    1  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      36   44    43   968   63   126   157 1439    26    52 2381  1088
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:   36   44    43   968   63   126   157 1439    26    52 2381  1088
Added Vol:      0    0     0     0    0    19    31    9     0     0   12     0
Cumulatives:    0    0     0    54    0     5     2  169     0     0  113    31
Initial Fut:   36   44    43  1022   63   150   190 1617    26    52 2506  1119
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:    36   44    43  1022   63   150   190 1617    26    52 2506     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   36   44    43  1022   63   150   190 1617    26    52 2506     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:   36   44    43  1022   63   150   190 1617    26    52 2506     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.95 0.88  0.88  0.92 1.00  0.85  0.92 0.91  0.91  0.95 0.91  1.00
Lanes:       1.00 1.01  0.99  3.00 1.00  1.00  2.00 2.95  0.05  1.00 3.00  1.00
Final Sat.:  1805 1691  1652  5253 1900  1615  3502 5095    82  1805 5187  1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.03  0.03  0.19 0.03  0.09  0.05 0.32  0.32  0.03 0.48  0.00
Crit Moves:             ****  ****             ****                  ****
Green/Cycle: 0.03 0.03  0.03  0.24 0.24  0.24  0.07 0.60  0.60  0.05 0.59  0.00
Volume/Cap:  0.63 0.82  0.82  0.82 0.14  0.39  0.82 0.53  0.53  0.53 0.82  0.00
Delay/Veh:   68.5 86.7  86.7  40.8 30.3  32.8  66.9 12.0  12.0  51.5 18.5   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:  68.5 86.7  86.7  40.8 30.3  32.8  66.9 12.0  12.0  51.5 18.5   0.0
LOS by Move:    E    F     F     D    C     C     E    B     B     D    B     A
HCM2kAvgQ:      2    3     3    13    2     4     5   11    11     2   23     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
            STATE HIGHWAY - 2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #111 BAYSIDE DR/COAST HWY
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.690
Loss Time (sec):       8                Average Delay (sec/veh):        15.2
Optimal Cycle:        47                Level Of Service:                  B
********************************************************************************
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       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:        2  0  1! 0  0    1  0  0  1  0    1  0  3  0  1    1  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     309    9    38    87    9    72    71 2108   402    88 3017    41
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:  309    9    38    87    9    72    71 2108   402    88 3017    41
Added Vol:      5    0     0     0    0     0     0    5     4     0    7     0
Cumulatives:    7    0     0     0    0     0     0  219     4     0  137     0
Initial Fut:  321    9    38    87    9    72    71 2332   410    88 3161    41
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:   321    9    38    87    9    72    71 2332   410    88 3161    41
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  321    9    38    87    9    72    71 2332   410    88 3161    41
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:  321    9    38    87    9    72    71 2332   410    88 3161    41
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 0.94  0.94  0.95 0.87  0.87  0.95 0.91  0.85  0.95 0.91  0.85
Lanes:       2.70 0.06  0.24  1.00 0.11  0.89  1.00 3.00  1.00  1.00 4.00  1.00
Final Sat.:  4698  103   433  1805  183  1464  1805 5187  1615  1805 6916  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.07 0.09  0.09  0.05 0.05  0.05  0.04 0.45  0.25  0.05 0.46  0.03
Crit Moves:             ****       ****             ****        ****
Green/Cycle: 0.13 0.13  0.13  0.07 0.07  0.07  0.06 0.65  0.65  0.07 0.66  0.66
Volume/Cap:  0.54 0.69  0.69  0.68 0.69  0.69  0.69 0.69  0.39  0.69 0.69  0.04
Delay/Veh:   41.7 45.6  45.6  58.8 61.5  61.5  64.0 11.7   8.4  60.3 10.8   5.8
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:  41.7 45.6  45.6  58.8 61.5  61.5  64.0 11.7   8.4  60.3 10.8   5.8
LOS by Move:    D    D     D     E    E     E     E    B     A     E    B     A
HCM2kAvgQ:      4    6     6     4    4     4     2   17     6     3   16     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
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--------------------------------------------------------------------------------
                          MARINERS POINTE - 10-107807
            STATE HIGHWAY - 2013 CUMULATIVE WITH PROJECT CONDITIONS
                                 PM PEAK HOUR
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #112 JAMBOREE RD/COAST HWY
********************************************************************************
Cycle (sec):         100               Critical Vol./Cap.(X):         0.836
Loss Time (sec):       8               Average Delay (sec/veh):        32.6
Optimal Cycle:        75               Level Of Service:                  C
********************************************************************************
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          Ignore           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:        1  0  1  1  0    1  0  2  0  1    3  0  3  1  0    2  0  4  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      36  253    90   214  447  1292   859 1375    20   208 2070   160
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:   36  253    90   214  447  1292   859 1375    20   208 2070   160
Added Vol:      0    0     0     0    0     2     2    4     0     0    5     0
Cumulatives:    6    0     0   117    1     0    21  192     6     0  132    93
Initial Fut:   42  253    90   331  448  1294   882 1571    26   208 2207   253
User Adj:    1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Volume:    42  253    90   331  448     0   882 1571    26   208 2207     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   42  253    90   331  448     0   882 1571    26   208 2207     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  0.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
FinalVolume:   42  253    90   331  448     0   882 1571    26   208 2207     0
------------|---------------||---------------||---------------||---------------|
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 0.95  1.00  0.92 0.91  0.91  0.92 0.91  1.00
Lanes:       1.00 1.48  0.52  1.00 2.00  1.00  3.00 3.93  0.07  2.00 4.00  1.00
Final Sat.:  1805 2559   910  1805 3610  1900  5253 6790   112  3502 6916  1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.10  0.10  0.18 0.12  0.00  0.17 0.23  0.23  0.06 0.32  0.00
Crit Moves:       ****        ****             ****                 ****
Green/Cycle: 0.05 0.12  0.12  0.22 0.28  0.00  0.20 0.46  0.46  0.12 0.38  0.00
Volume/Cap:  0.44 0.84  0.84  0.84 0.44  0.00  0.84 0.50  0.50  0.50 0.84  0.00
Delay/Veh:   49.0 57.0  57.0  51.7 29.5   0.0  44.3 18.8  18.8  42.2 30.6   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:  49.0 57.0  57.0  51.7 29.5   0.0  44.3 18.8  18.8  42.2 30.6   0.0
LOS by Move:    D    E     E     D    C     A     D    B     B     D    C     A
HCM2kAvgQ:      2    8     8    12    6     0     9    9     9     4   19     0
********************************************************************************
```

Appendix C
Approved/Cumulative Project Information

17-NOV-10

Traffic Phasing Data
Projects Less Than 100% Complete

Project Number	Project Name		Percent
148	FASHION ISLAND EXPANSION		40 %
154	TEMPLE BAT YAHM EXPANSION		65 %
555	CIOSA - IRVINE PROJECT		91 %
910	NEWPORT DUNES		0 %
945	HOAG HOSPITAL PHASE III		0 %
949	ST. MARK PRESBYTERIAN CHU		77 %
954	OLQA CHURCH EXPANSION		0 %
955	2300 NEWPORT BLVD		0 %
957	NEWPORT EXECUTIVE COURT	← new	0 %
958	HOAG HEALTH CENTER		75 %
959	NORTH NEWPORT CENTER		0 %
960	SANTA BARBARA CONDO (MARR		0 %
961	NEWPORT BEACH CITY HALL &		0 %
962	328 OLD NEWPORT MEDICAL O		0 %
963	COASTLINE COMMUNITY COLLE	← new	0 %
964	BAYVIEW MEDICAL OFFICE -	← new	0 %

Traffic Phasing Ordinance
Approved Projects 80% Volume Summary
Intersection Report

Int. Number 5055 Int. Name JAMBOREE RD / COAST HWY E

	1 Hr Peak Totals				1 Hr Peak											
	NB	SB	EB	WB	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
AM	2	122	136	50		1	1	6	1	115	52	84	1	1	48	1
PM	6	87	153	132	1	1	4	8	3	76	93	60		5	117	10

Int. Number 5440 Int. Name COAST HWY E / BAYSIDE DR

	1 Hr Peak Totals				1 Hr Peak											
	NB	SB	EB	WB	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
AM	1	62	130	62			1	44		18	35	95			62	
PM		100	105	122				71		29	26	80			122	

Int. Number 3385 Int. Name IRVINE AVE / 19TH ST DOVER DR

	1 Hr Peak Totals				1 Hr Peak											
	NB	SB	EB	WB	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
AM	1	1		4	1	1		1							1	2
PM	1	2		2	1			1	1						1	1

Int. Number 3260 Int. Name 16TH ST / DOVER DR

	1 Hr Peak Totals				1 Hr Peak											
	NB	SB	EB	WB	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
AM	2	1	1	7	1	1	1	1					1	1	2	4
PM	2	5	1	4			2	4	1			1			1	4

17-NOV-10

Traffic Phasing Ordinance
Approved Projects 80% Volume Summary
Intersection Report

Int. Number: 3275

Int. Name: IRVINE AVE / 17TH ST   WESTCLIFF DR

	1 Hr Peak Totals				1 Hr Peak											
	NB	SB	EB	WB	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
AM	1	3	5	6	1	1				3	1	3	1		6	
PM		4	23	8						4	7	16			8	

Int. Number: 3290

Int. Name: DOVER DR / WESTCLIFF DR

	1 Hr Peak Totals				1 Hr Peak											
	NB	SB	EB	WB	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
AM	5	1			1	4			1							
PM	2	2	3			2			2				3			

Int. Number: 3060

Int. Name: COAST HWY W / DOVER DR   BAYSHORE DR

	1 Hr Peak Totals				1 Hr Peak											
	NB	SB	EB	WB	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
AM		24	123	93				19		5	4	119			83	9
PM		15	123	167				13		2	6	117			141	26

Int. Number: 2620

Int. Name: NEWPORT BLVD / COAST HWY W

	1 Hr Peak Totals				1 Hr Peak											
	NB	SB	EB	WB	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
AM		60	34	47				25		35		30	4		46	2
PM		57	94	60				38		19		87	7		49	11

Traffic Phasing Ordinance
Approved Projects 80% Volume Summary
Intersection Report

Int. Number	Int. Name
2630	RIVERSIDE AVE / COAST HWY W

	1 Hr Peak Totals				1 Hr Peak											
	NB	SB	EB	WB	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
AM			125	93								125			93	
PM			131	149								131			149	

Int. Number	Int. Name
2635	COAST HWY W / TUSTIN AVE

	1 Hr Peak Totals				1 Hr Peak											
	NB	SB	EB	WB	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
AM			129	93								129			93	
PM			131	149								131			149	

→ Pass by Volume in OCC study

Cumulative Project List - November 2010

Projects of significant size to have a potential cumulative impact

Note: Highlighted projects do not result in an increase in traffic generation; however, may have other cumulative impacts to consider (i.e. construction, noise, air quality).

✓	Newport Beach Country Club	1600 East Coast Highway	• 5 res. d.u • 27 hotel units with a 2,048 g.s.f. concierge and guest center • 3,523 g.s.f. tennis club with a 6,718 g.s.f. spa • 51,213 g.s.f. golf club with accessory facilities • 7 tennis courts and a swimming pool.
✓	Mariner's Medical Arts	1901 Westcliff Dr.	12,245 g.s.f. medical office addition
✓	WPI-Newport, LLC	4699 Jamboree Rd/ 5190 Campus Drive	New office building and remodel of existing office and bank buildings to accommodate office space, bank, retail, and restaurant uses: **Existing (To be demolished): 21,023 g.s.f.** • Office:10,800 g.s.f. • Bank:10,221 g.s.f. **New: 46,044 g.s.f.** • Office: 39,212 n.s.f./42,041 g.s.f. • Bank: 3,434 n.s.f./4,003 g.s.f.
✓	Banning Ranch	4520 W. Coast Hwy	1,375 d.u., 75,000 g.s.f. commercial retail, 75-room accommodations, parks, and open space.
✓	Sunset Ridge Park	4850 W. Coast Hwy	13.67 ac. active park
✓	Marina Park	1700 Balboa Blvd	10.45 ac. public marina, beach, park with recreational facilities as follows: • Balboa Center Complex: 26,990 g.s.f. • Visiting Vessel Marina: 23 Slips • Marina Services Building (laundry, offices, etc.): 1,328 g.s.f. • Girl Scout House: 5,500 g.s.f. • Parking 153 spaces
✓	Pres Office Building B	4300 Von Karmen	11,960 g.s.f. office (9,917 n.s.f.)
✓	Conexant	4311 Jamboree Rd	**New:** • 1,244 residential d.u • 11,500 g.s.f. commercial **Existing (to be demolished):** • 167,000 g.s.f. office • 269,000 g.s.f. industrial
✓	Koll	4343 Von Karman Ave	**New:** • 260 residential d.u. • 3,400 g.s.f. commercial
✓	AERIE	201 Carnation Ave	New:6-unit condominium with subterranean parking (25,500 c.y. grading) **Existing: 14 apartment d.u.**

New

Dolphin Striker @ MacArthur	4221 Dolphin Striker Way	**New:** 15,000 g.s.f. commercial retail development **Existing (to be demolished):** 7,996 g.s.f. restaurant building
Mariner's Pointe	100-300 West Coast Highway	**New:** 23,015 g.s.f commercial development and 3-story parking structure • 12,722 g.s.f. restaurant • 7,293 g.s.f. retail • 3,000 g.s.f. medical **Existing (to be demolished):** 5,447 g.s.f. office/retail
✓ Newport Coast		**See David Keely in Public Works for update.**

Our proposed project.

NEWPORT COAST

TABLE 12-1

TRIP GENERATION RATES[1]

LAND USE	UNITS[2]	PEAK HOUR				DAILY
		AM		PM		
		IN	OUT	IN	OUT	
Condominium/Townhouse	DU	0.17	0.49	0.47	0.36	8.10
Multi Family Dwelling	DU	0.90	0.42	0.43	0.20	6.47
Single Family Detached Residential	DU	0.20	0.70	0.70	0.40	11.00
State Park (gross acres)	AC	0.21	0.90	0.29	0.31	19.15

0.09

Verify trip gen

[1] Source: City of Newport Beach Trip Generation Rates

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[2] DU = Dwelling Units
AC = Acres

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TABLE 12-2

PROJECT TRIP GENERATION

TAZ	PLANNING AREA	LAND USE	QUANTITY	UNITS[1]	PEAK HOUR				DAILY
					AM		PM		
					IN	OUT	IN	OUT	
1	1A	Condominium/Townhouse	121	DU	21	59	57	44	980
	1B	Single Family Detached Residential	36	DU	7	25	25	14	396
	1C	Condominium/Townhouse	888	DU	151	435	417	320	7,193
	2A	Single Family Detached Residential	206	DU	41	144	144	82	2,266
	13C	Multi Family Dwelling	116	DU	104	49	50	23	751
	13D	Multi Family Dwelling	116	DU	104	49	50	23	751
	13E	Multi Family Dwelling	116	DU	104	49	50	23	751
TOTAL FOR TAZ 1					532	810	793	529	13,088
2	3A	Single Family Detached Residential	347	DU	69	243	243	139	3,817
	3B	Single Family Detached Residential	450	DU	90	315	315	180	4,950
	4B	Single Family Detached Residential	587	DU	117	411	411	235	6,457
	13A	Multi Family Dwelling	117	DU	105	49	50	23	757
	13B	Multi Family Dwelling	117	DU	105	49	50	23	757
	14	Single Family Detached Residential	26	DU	5	18	18	10	286
	17	State Park (gross acres)	2,807	AC	589	2,526	814	870	53,754
TOTAL FOR TAZ 2					1,080	3,611	1,901	1,480	70,778
3	2B	Single Family Detached Residential	62	DU	12	43	43	25	682
	4A	Single Family Detached Residential	784	DU	157	549	549	314	8,624
TOTAL FOR TAZ 3					169	592	592	339	9,306
4	2C	Single Family Detached Residential	307	DU	61	215	215	123	3,377
	5	Single Family Detached Residential	300	DU	60	210	210	120	3,300
	6	Single Family Detached Residential	75	DU	15	53	53	30	825
	8	Condominium/Townhouse	289	DU	49	142	136	104	2,341
TOTAL FOR TAZ 4					185	620	614	377	9,843
TOTAL FOR ALL ZONES					1,966	5,633	3,900	2,725	103,015

- 70% OF DU'S ARE BUILT. ONLY 30% IS THE CUMULATIVE PROJECT

- ASSUME STATE PARK IS EXISTING.

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[1] DU = Dwelling Units
AC = Acres

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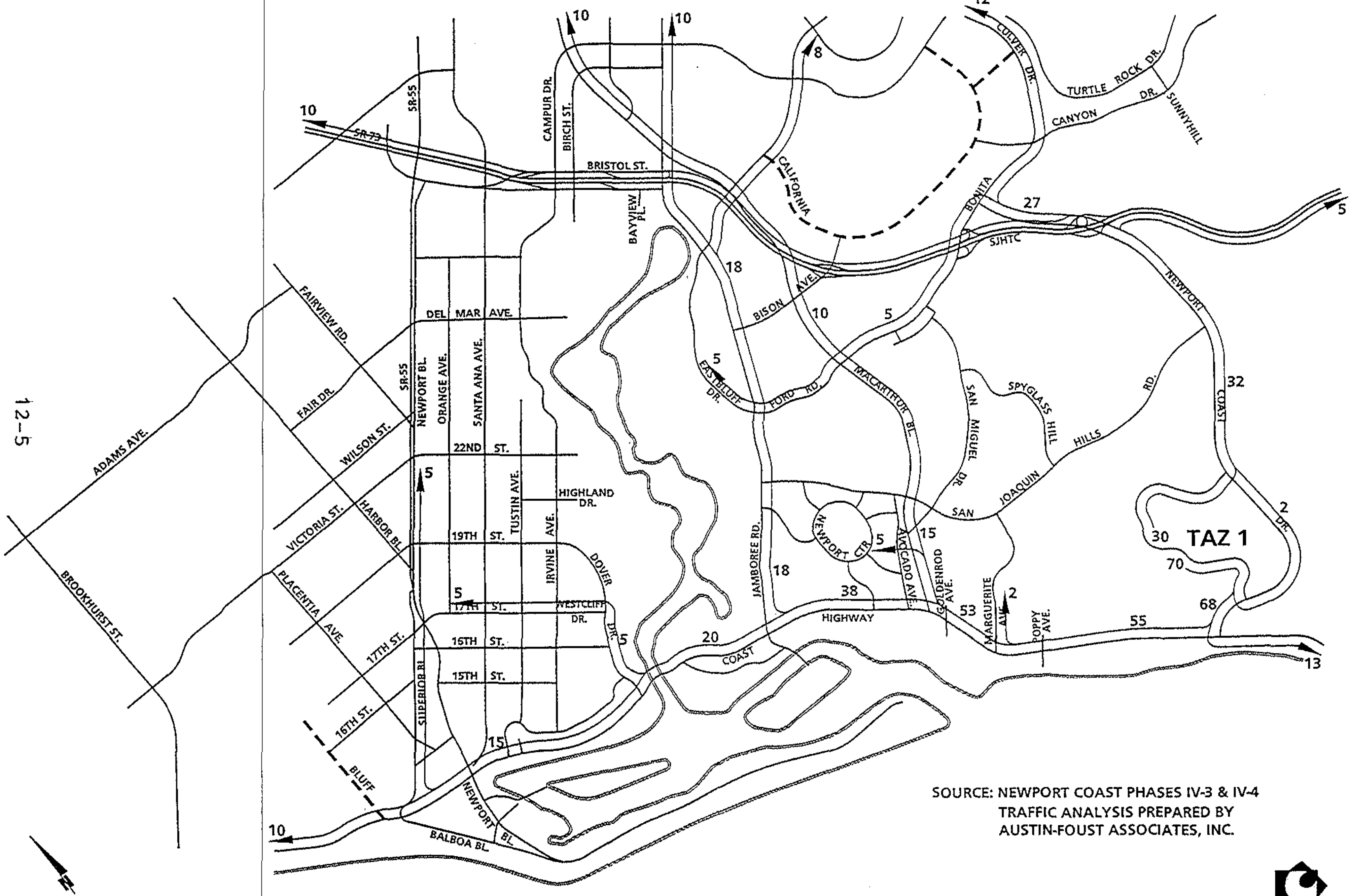
NEWPORT COAST TRAFFIC ANALYSIS ZONE [illegible]
TRIP DISTRIBUTION PATTERNS

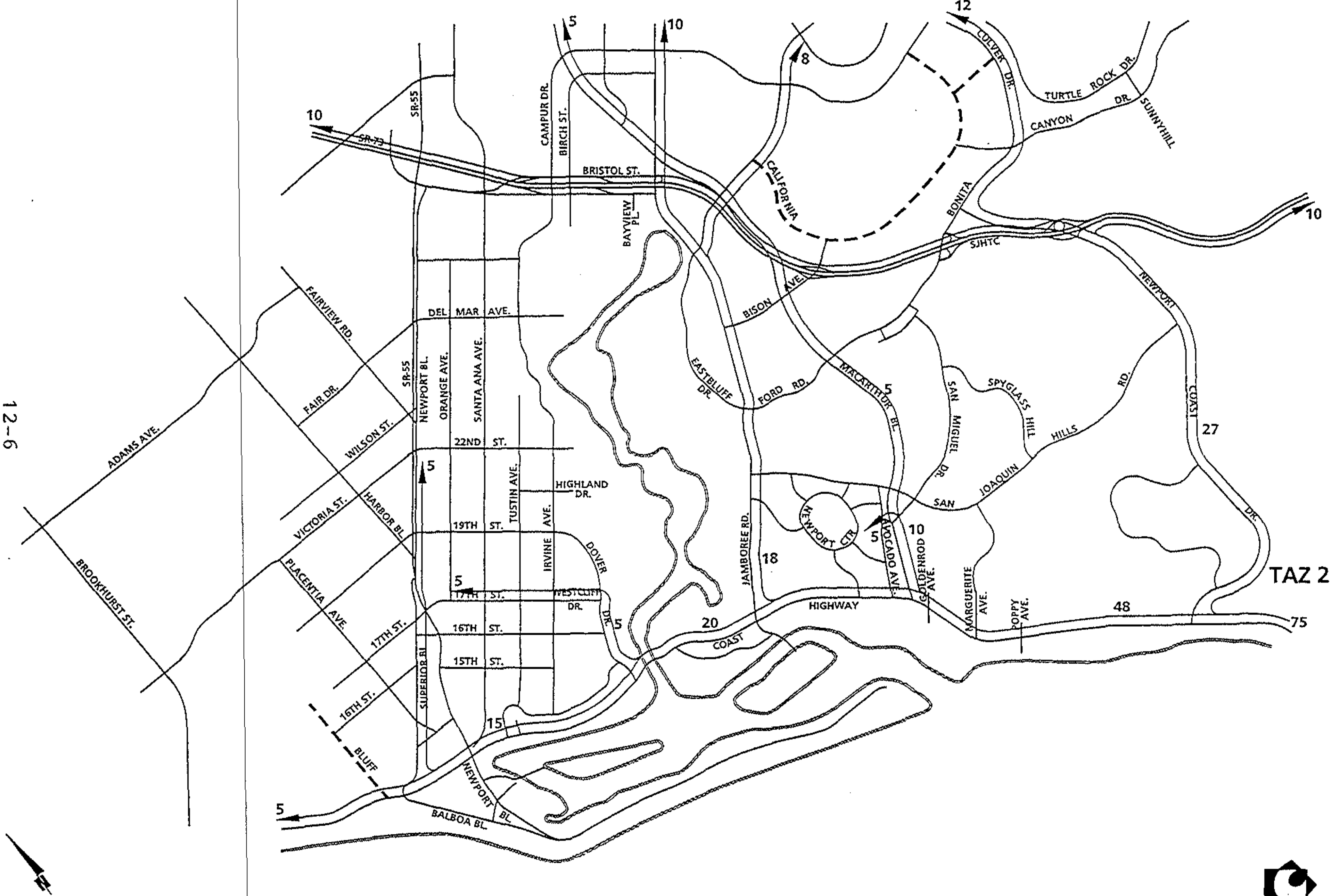


SOURCE: NEWPORT COAST PHASES IV-3 & IV-4
TRAFFIC ANALYSIS PREPARED BY
AUSTIN-FOUST ASSOCIATES, INC.

URBAN CROSSROADS

EXHIBI 12-B

NEWPORT COAST TRAFFIC ANALYSIS ZONE 2
TRIP DISTRIBUTION PATTERNS



EXHIB [illegible]

NEWPORT COAST TRAFFIC ANALYSIS ZONES TRIP DISTRIBUTION PATTERNS

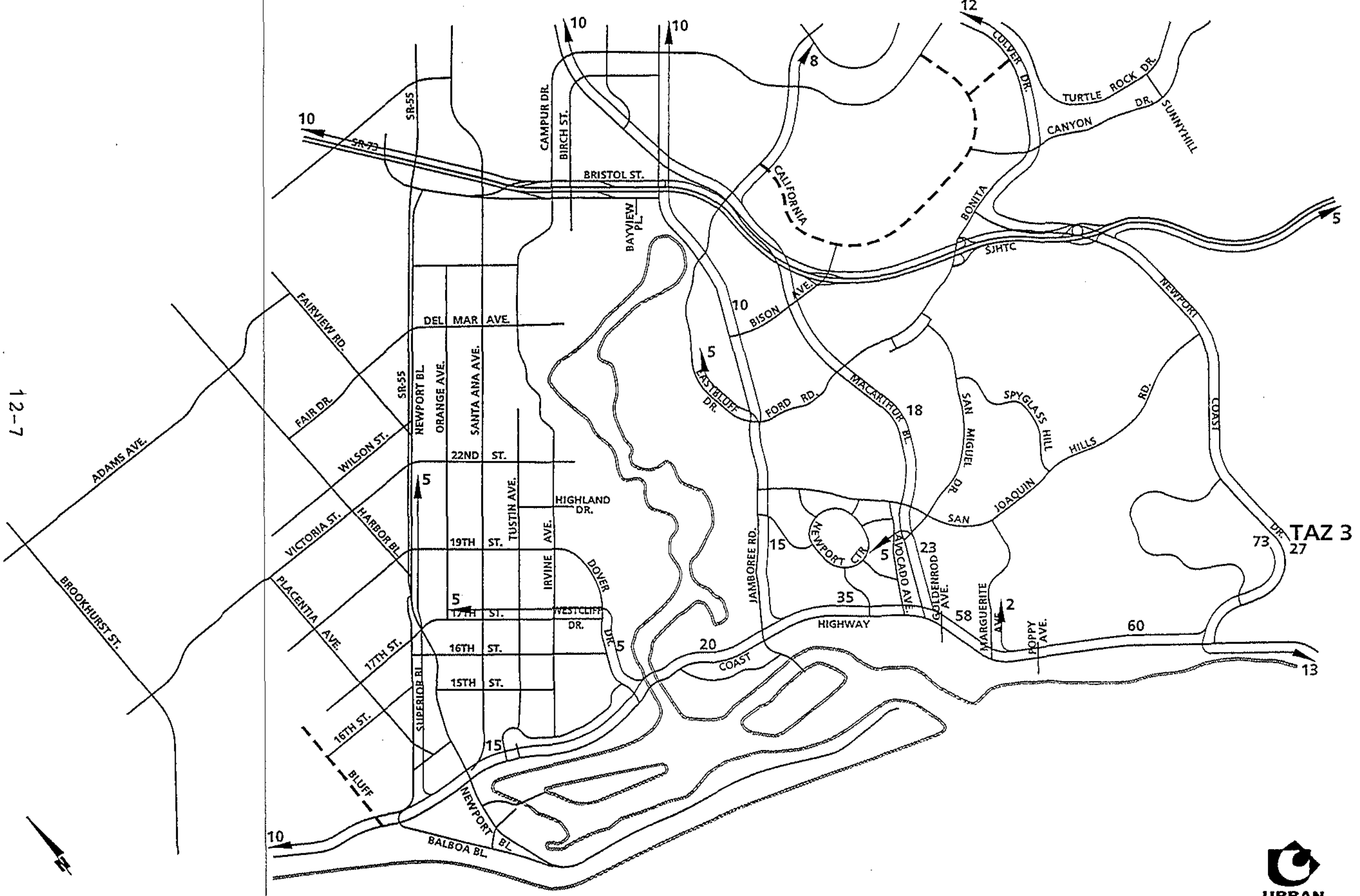
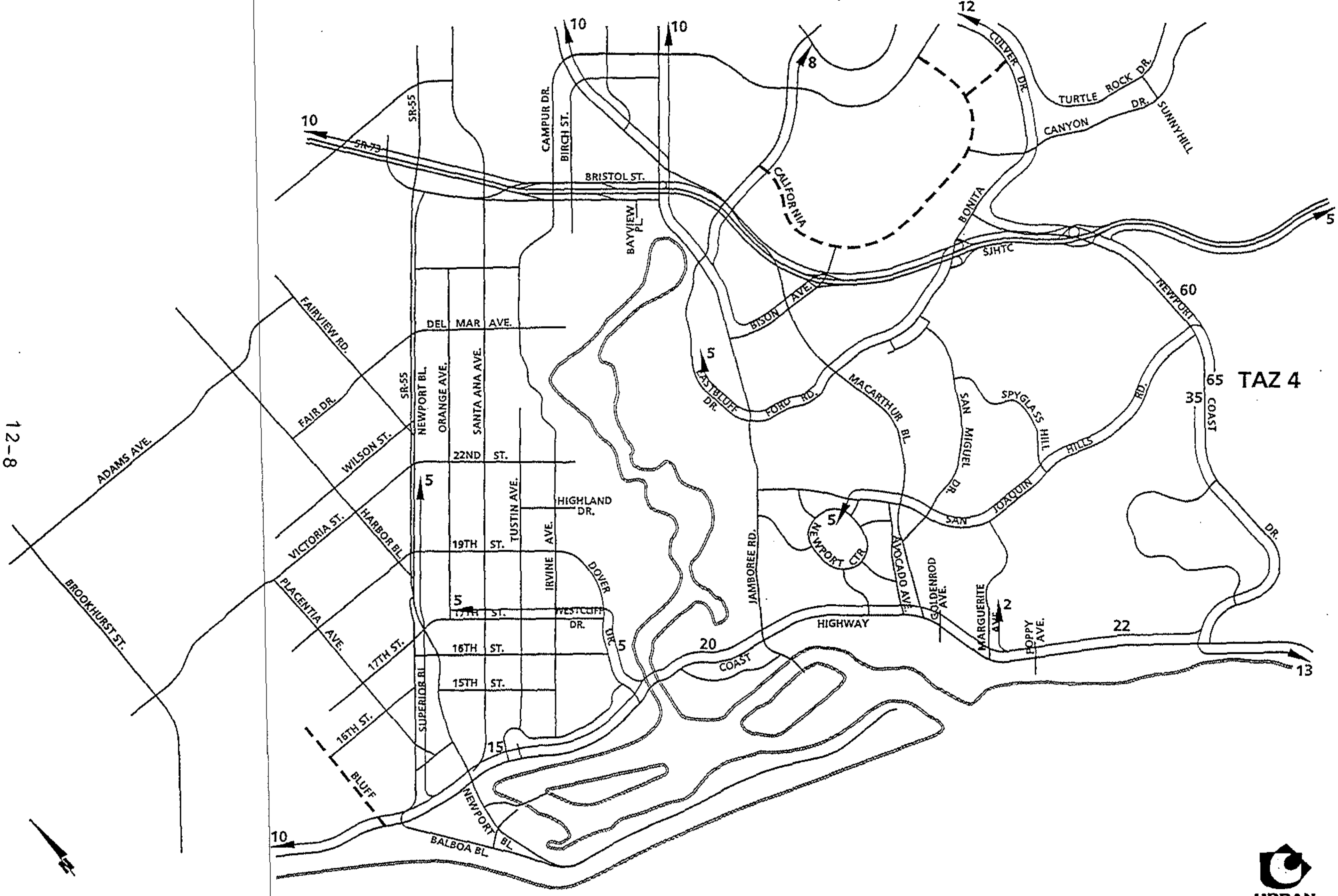


EXHIBIT 12-D

NEWPORT COAST TRAFFIC ANALYSIS ZONE 4
TRIP DISTRIBUTION PATTERNS



NEWPORT BEACH CUMULATIVE TRAFFIC ANALYSIS, Newport Beach, California - 00636:12

WPI-Newport, LLC
4699 Jamboree Road - 5190 Campus Drive

Trip Generation Rates

Land Use	Rate Type	Size	Unit	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	Total
Office	ITE-8th		TSF	1.36	0.19	1.55	0.25	1.24	1.49	11.01
Bank-Drive In	ITE-8th		TSF	6.92	5.43	12.35	12.91	12.91	25.82	148.15
Specialty Retail Center*	ITE-8th		TSF	0.61	0.39	1.00	1.19	1.52	2.71	44.32
Quality Restaurant**	ITE-8th		TSF	0.66	0.15	0.81	5.02	2.47	7.49	89.95

Note * - Specialty Retail AM trip generation rate is unavailable. Shopping Center AM peak hour trip generation rate used.

** - AM distribution for AM peak hour of generator used.

Existing Use

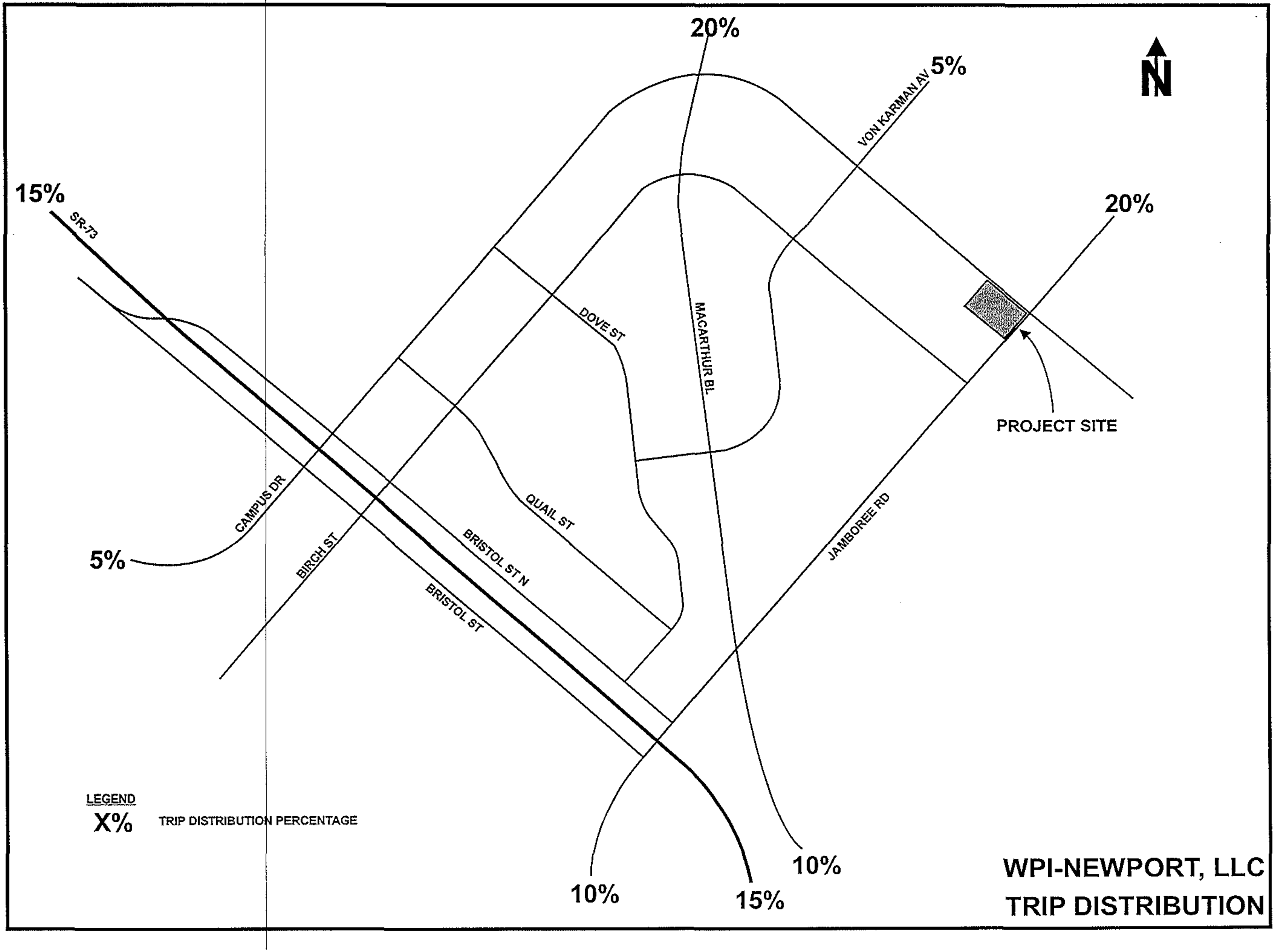
Land Use	Rate Type	Size	Unit	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	Total
Office	ITE-8th	10.8	TSF	15	2	17	3	13	16	119
Bank	ITE-8th	10.221	TSF	71	56	126	132	132	264	1514
	ITE-8th									
	ITE-8th									
Total		21.021		85	58	143	135	145	280	1633

Proposed Use

Land Use	Rate Type	Size	Unit	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	Total
Office	ITE-8th	42.041	TSF	57	8	65	11	52	63	463
Bank	ITE-8th	4.003	TSF	28	22	49	52	52	103	593
Total		46.044		85	30	115	62	104	166	1056

Net Increase				**-1**	**-28**	**-28**	**-72**	**-42**	**-114**	**-577**

Note: Do not assign negative trips to the circulation system.



WPI-NEWPORT, LLC
TRIP DISTRIBUTION

Pres Office Building B
4300 Von Karman

Trip Generation Rates

				AM Peak Hour			PM Peak Hour			Daily
Land Use	Rate Type	Size	Unit	In	Out	Total	In	Out	Total	Total
Office	ITE-8th		TSF	1.36	0.19	1.55	0.25	1.24	1.49	11.01
	ITE-8th									
	ITE-8th									
	ITE-8th									

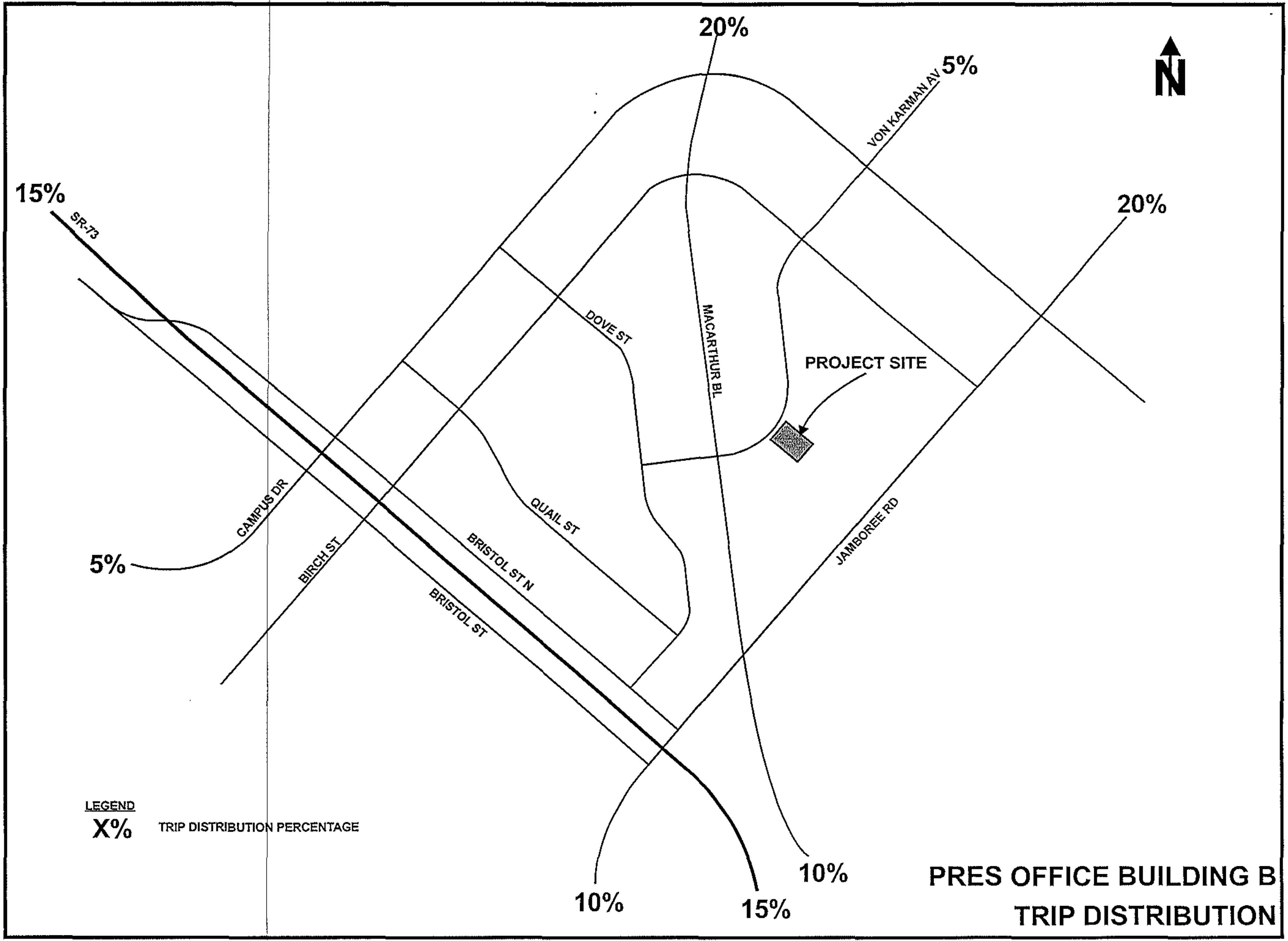
Existing Use

				AM Peak Hour			PM Peak Hour			Daily
Land Use	Rate Type	Size	Unit	In	Out	Total	In	Out	Total	Total
	ITE-8th									
	ITE-8th									
	ITE-8th									
Total						0			0	0

Proposed Use

				AM Peak Hour			PM Peak Hour			Daily
Land Use	Rate Type	Size	Unit	In	Out	Total	In	Out	Total	Total
Office	ITE-8th	11.96	TSF	16	2	19	3	15	18	132
	ITE-8th									
	ITE-8th									
	ITE-8th									
Total				16	2	19	3	15	18	132

Net Increase				**16**	**2**	**19**	**3**	**15**	**18**	**132**



LEGEND

X% TRIP DISTRIBUTION PERCENTAGE

PRES OFFICE BUILDING B
TRIP DISTRIBUTION

Mariner's Medical Arts
1901 Westcliff Drive

Trip Generation Rates

Land Use	Rate Type	Size	Unit	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	Total
Medical Office	ITE-8th		TSF	1.82	0.48	2.30	0.93	2.53	3.46	36.13
	ITE-8th									
	ITE-8th									
	ITE-8th									

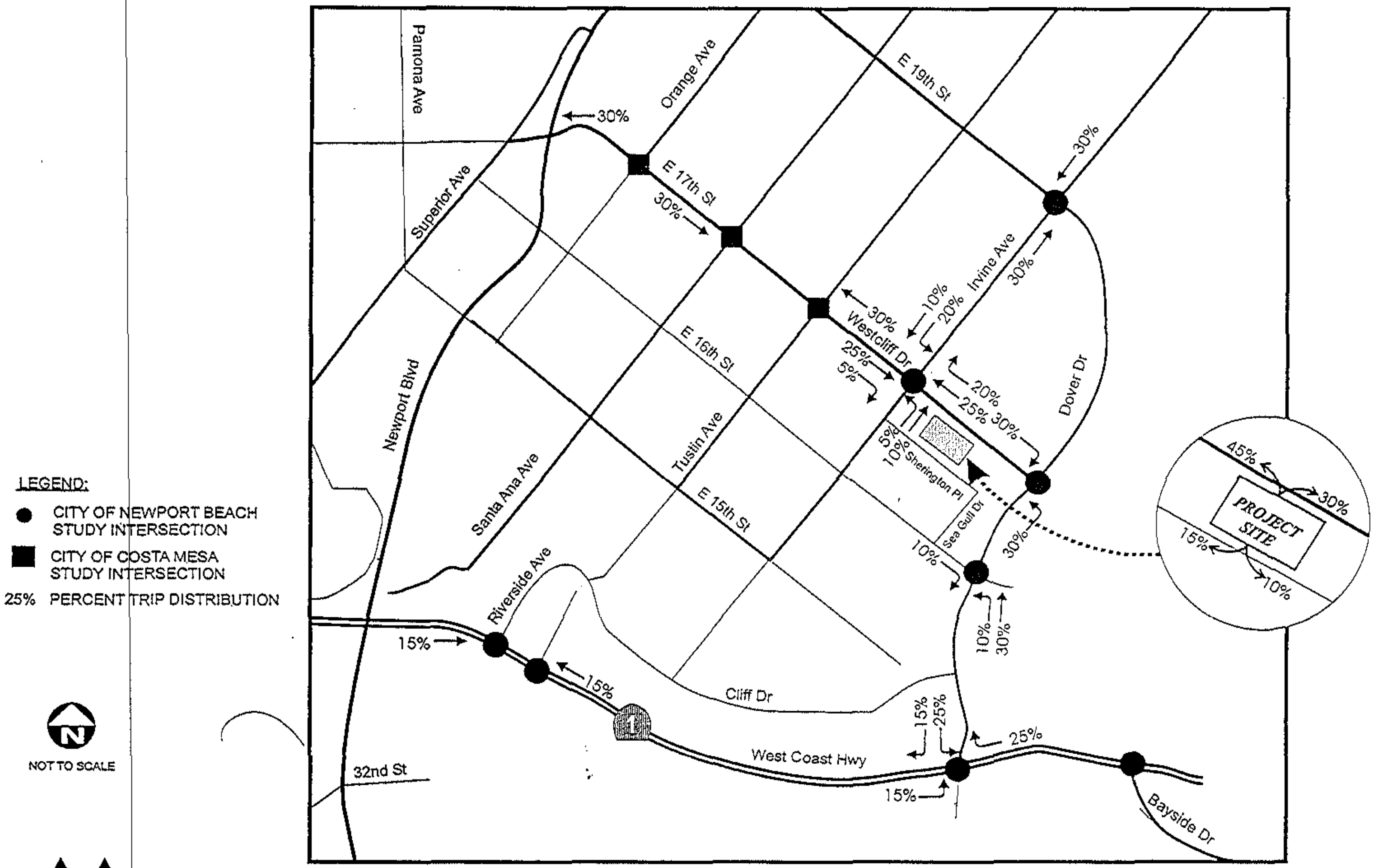
Existing Use

Land Use	Rate Type	Size	Unit	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	Total
	ITE-8th									
	ITE-8th									
	ITE-8th									
Total						0			0	0

Proposed Use

Land Use	Rate Type	Size	Unit	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	Total
Medical Office	ITE-8th	12.245	TSF	22	6	28	11	31	42	442
	ITE-8th									
	ITE-8th									
	ITE-8th									
Total				22	6	28	11	31	42	442

Net Increase				**22**	**6**	**28**	**11**	**31**	**42**	**442**



Meyer, Mohaddes Associates, Inc.

An Iteris Company

NEWPORT BEACH
1901 WESTCLIFF DRIVE TRAFFIC PHASING ORDINANCE

FIGURE 6
Project Trip Distribution Percentages

J00-013\gra\MAP_ISXN3/2/00

Koll-Conexant
4311 Jamboree Road

Trip Generation Rates

Land Use	Rate Type	Size	Unit	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	Total
Office	ITE-8th		TSF	1.36	0.19	1.55	0.25	1.24	1.49	11.01
General Light Industrial	ITE-8th		TSF	0.81	0.11	0.92	0.12	0.85	0.97	6.97
Apartments	ITE-8th		DU	0.1	0.41	0.51	0.4	0.22	0.62	6.65

Existing Use

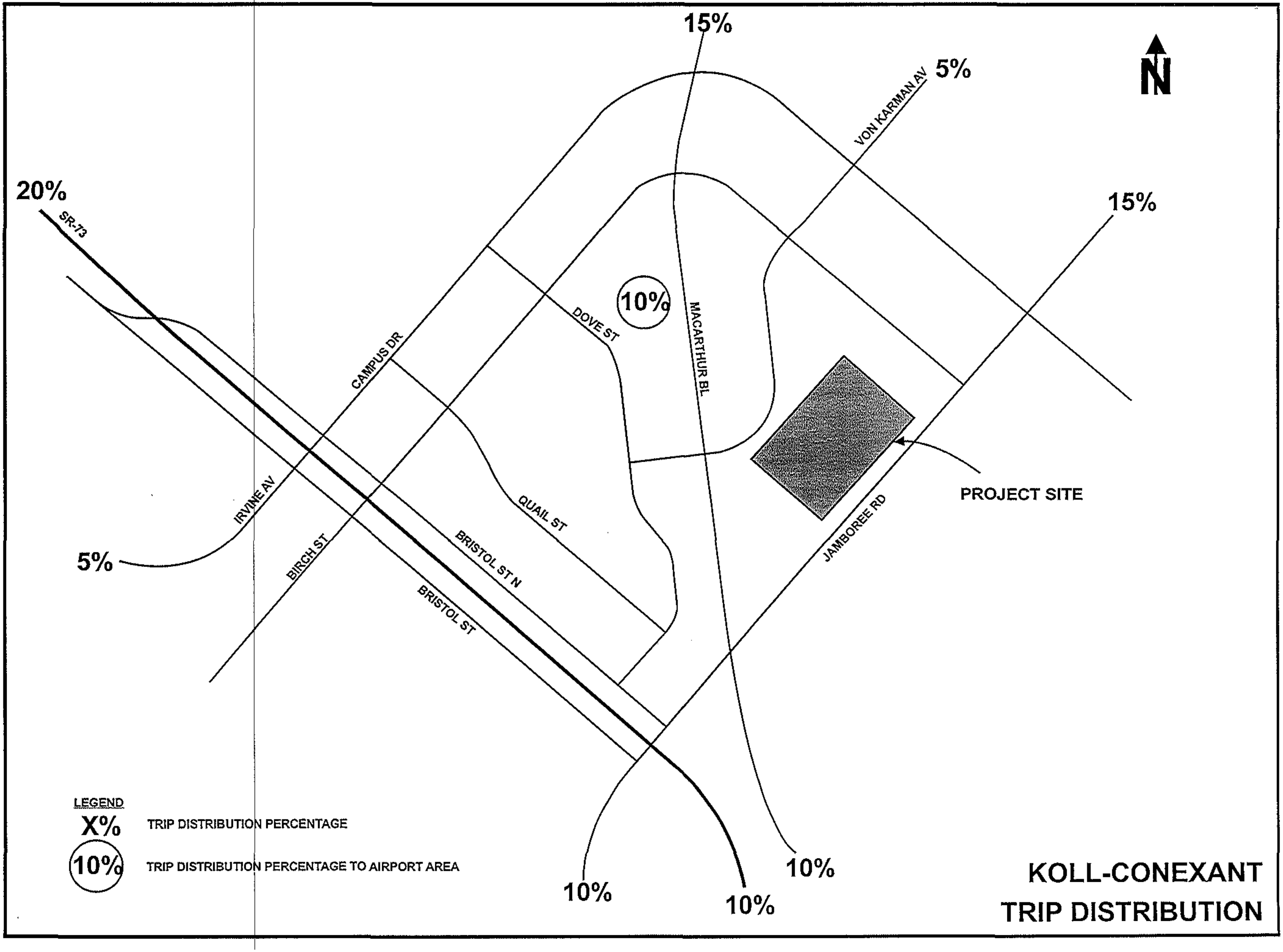
Land Use	Rate Type	Size	Unit	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	Total
Office	ITE-8th	167	TSF	227	32	259	42	207	249	1839
Industrial	ITE-8th	269	TSF	218	30	247	32	229	261	1875
	ITE-8th									
	ITE-8th									
Total				445	61	506	74	436	510	3714

Proposed Use

Land Use	Rate Type	Size	Unit	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	Total
Apartment	ITE-8th	974	DU	97	399	497	390	214	604	6477
	ITE-8th		TSF	0	0	0	0	0	0	0
	ITE-8th		TSF	0	0	0	0	0	0	0
	ITE-8th		TSF	0	0	0	0	0	0	0
Total				97	399	497	390	214	604	6477

Net Increase				**-348**	**338**	**-10**	**316**	**-221**	**94**	**2764**

Note: Do not assign negative trips to the circulation system



KOLL-CONEXANT
TRIP DISTRIBUTION

TABLE 2
SUMMARY OF PROJECT TRIP GENERATION
NEWPORT BANNING RANCH

TRIP RATES

			Trip Generation Rates						
				AM Peak Hour			PM Peak Hour		
Land Use	ITE Code	Trips per	Daily	In	Out	Total	In	Out	Total
Single-Family Detached Housing	210	DU	9.57	0.19	0.56	0.75	0.64	0.37	1.01
Residential Condominium/Townhouse	230	DU	5.81	0.07	0.37	0.44	0.35	0.17	0.52
High-Rise Residential Condominium/Townhouse	232	DU	4.18	0.06	0.28	0.34	0.24	0.14	0.38
Resort Hotel [1]	330	Room	4.90	0.22	0.09	0.31	0.18	0.24	0.42
Park [2]	412	Acre	2.28	0.01	0.00	0.01	0.02	0.04	0.06
Shopping Center [3]	820	KSF	75.10	Equation - See Below					

PROJECT TRIP GENERATION

				Trip Generation Estimates						
Project					AM Peak Hour			PM Peak Hour		
Area	Land Use	Units		Daily	In	Out	Total	In	Out	Total
South Family Village	Single-Family Detached Housing	141	DU	1,349	27	79	106	90	52	142
	Park	28	Acres	64	0	0	0	1	1	2
	Subtotal			**1,413**	**27**	**79**	**106**	**91**	**53**	**144**
Resort Colony	Residential Condominium/Townhouse	87	DU	505	6	32	38	30	15	45
	Resort Hotel	75	Rooms	368	17	7	24	14	18	32
	Subtotal			**873**	**23**	**39**	**62**	**44**	**33**	**77**
North Family Village	Single-Family Detached Housing	282	DU	2,699	54	158	212	180	104	284
	Residential Condominium/Townhouse	135	DU	784	9	50	59	47	23	70
	Subtotal			**3,483**	**63**	**208**	**271**	**227**	**127**	**354**
Urban Colony	High-Rise Residential Condominium/Townhouse	730	DU	3,051	44	204	248	175	102	277
	Shopping Center	75.0	KSF	5,633	79	51	130	257	267	524
	Subtotal			**8,684**	**123**	**255**	**378**	**432**	**369**	**801**
Total Before Internal Capture/Pass-by				**14,453**	**236**	**581**	**817**	**794**	**582**	**1,376**
Internal Capture [4]				**1,126**	▨	▨	▨	**55**	**55**	**110**
Pass-By Reduction for Retail (34%) [5]				▨	▨	▨	▨	**80**	**80**	**160**
Total Project Trips				**13,327**	**236**	**581**	**817**	**659**	**447**	**1,106**

Source: Institute of Transportation Engineers publication "Trip Generation", 8th Edition

DU = Dwelling Unit, KSF = 1,000 Square Feet

[1] ITE Land Use Category 330 Resort Hotel does not provide a daily trip rate. ITE Land Use Category 311 - All Suites Hotel was used for daily trips.

[2] Trip generation is based on ITE Land Use County Park (Land Use 412) because this category includes peak hour trip rates.

[3] Trip rates for Shopping Center are derived from the following regression equations: T = Trip Ends, X = units in KSF

ADT: $\text{Ln}(T) = 0.65\,\text{Ln}(X) + 5.83$

AM Peak Hour: $\text{Ln}(T) = 0.59\,\text{Ln}(X) + 2.32$

PM Peak Hour: $\text{Ln}(T) = 0.67\,\text{Ln}(X) + 3.37$

[4] Source: Institute of Transportation Engineers (ITE) publication "Trip Generation Handbook". See Internal Capture Worksheets in Appendix C.

[5] Source: ITE publication "Trip Generation Handbook". Pass-by reduction is taken on balance of retail trips, after Internal Capture reduction

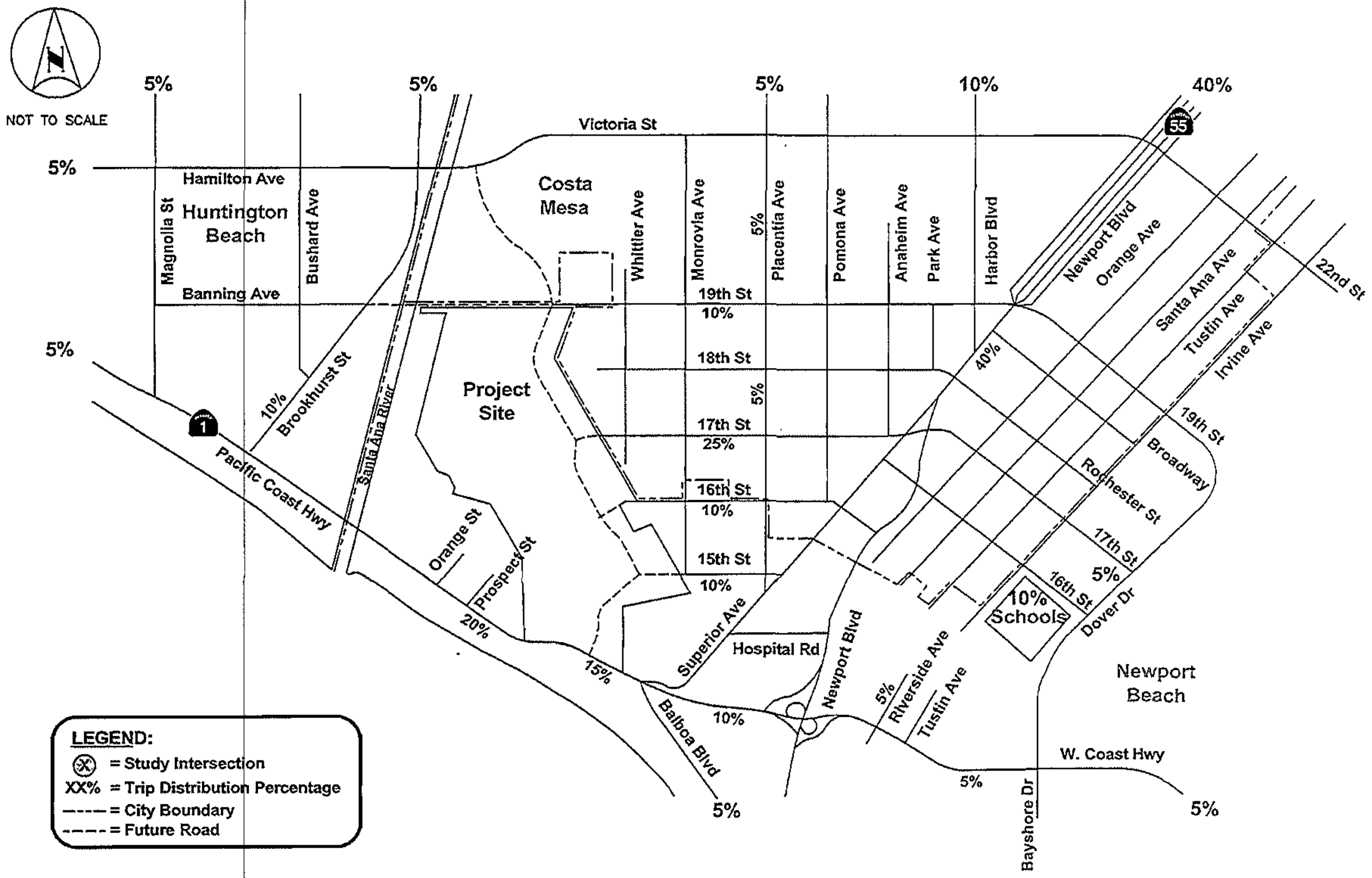


FIGURE 8
PROJECT TRIP DISTRIBUTION

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Kimley-Horn and Associates, Inc.

MARINA PARK.

Table 1

TRIP GENERATION SUMMARY

LAND USE	UNITS	AM PEAK HOUR IN	AM PEAK HOUR OUT	AM PEAK HOUR TOTAL	PM PEAK HOUR IN	PM PEAK HOUR OUT	PM PEAK HOUR TOTAL	ADT
TRIP RATES								
Park[1]	Acre	.28	.20	.48	.38	.92	1.30	15.70
Recreational Community Center (ITE 495)[2]	TSF	.99	.63	1.62	.48	1.16	1.64	22.88
Marina (ITE 420)	Berth	.03	.05	.08	.11	.08	.19	2.96
TRIP GENERATION								
Proposed Project								
Park	4.89 Acres	1	1	2	2	4	6	77
Community Ctr/Sailing Ctr/Cafe	21.3 TSF	21	13	34	10	25	35	487
Visitor Marina	23 Berths	1	1	2	3	2	5	68
Sub-Total		23	15	38	15	31	46	632
Existing Use								
Mobile Home Park	57 DU	-5	-13	-18	-7	-7	-14	-194
Park	1.2 Acres	0	0	0	0	-1	-1	-19
Community Ctr	2.9 TSF	-3	-2	-5	-1	-4	-5	-67
NET NEW TRIPS		**15**	**0**	**15**	**7**	**19**	**26**	**352**

Notes:

[1] Park AM and PM trip rates from ITE City Park (411) rate/acre, ADT rate averaged from City (411) and Beach (415) Park ADT rate/acre.

[2] ITE Recreational Community Center (495) trip rates applied to Community Center, Sailing Center, and Café.

The Girl Scout House will be relocated on-site and results in no net change in project trips.

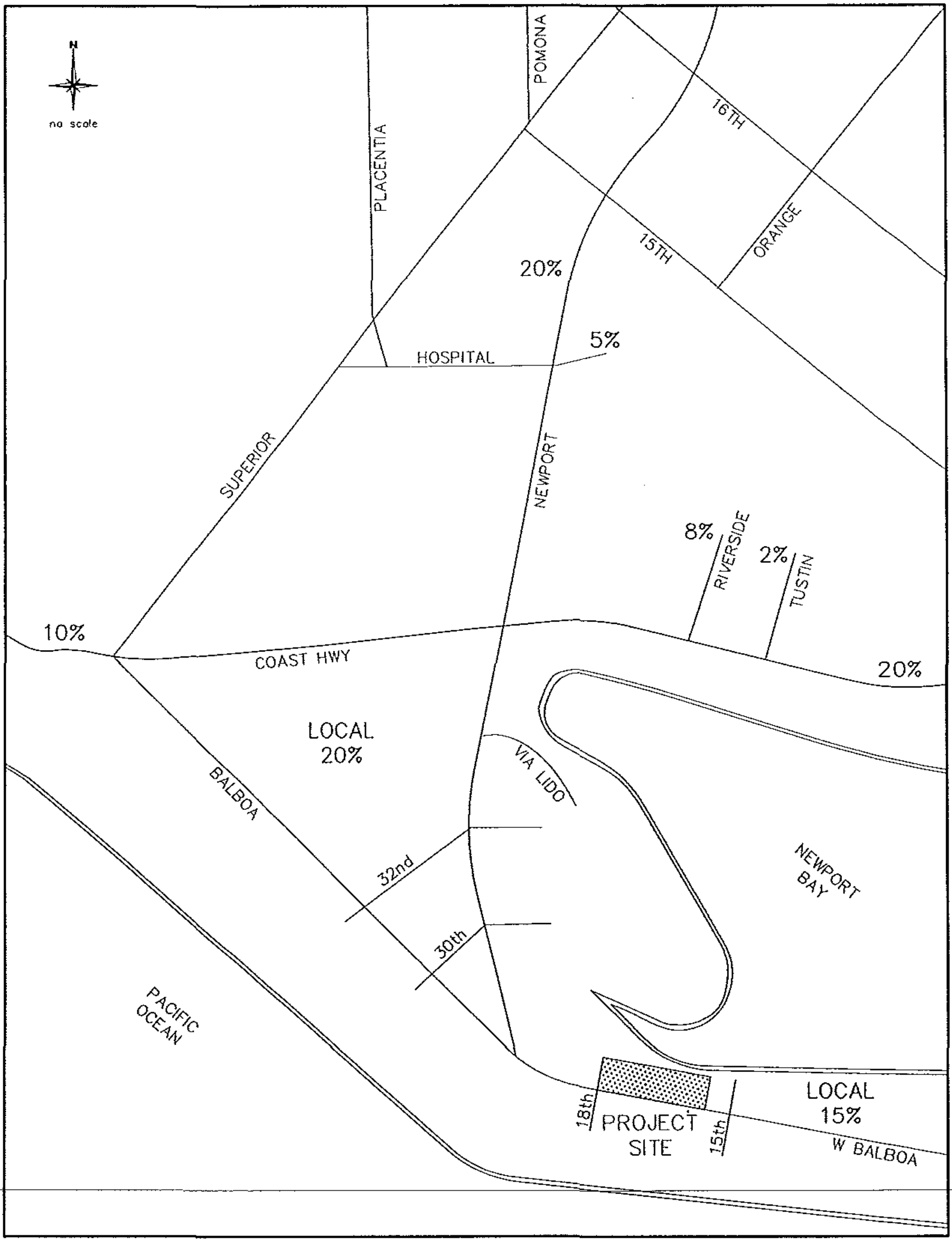


Figure 3

GENERAL PROJECT DISTRIBUTION

SUNSET RIDGE PARK .

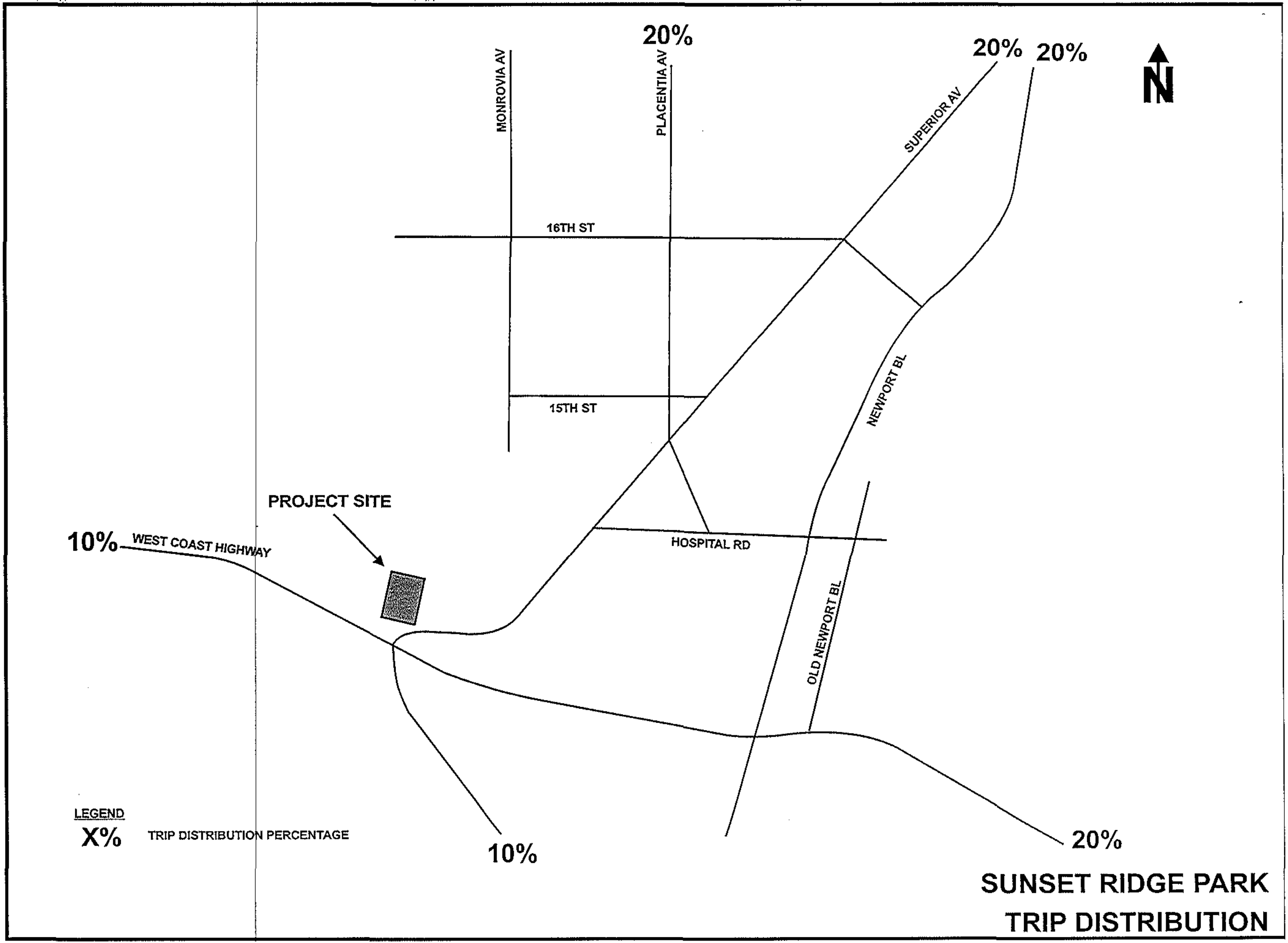
Table 5
Project Trip Generation
Sunset Ridge Park

			Trip Generation Rates						
				AM Peak Hour			PM Peak Hour		
Land Use	**ITE Code**	**Unit**	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
City Park	411	Acre	1.59	*	*	*	*	*	*
Soccer Complex	488	Field	71.33	0.70	0.70	1.40	14.26	6.41	20.67

			Trip Generation Estimates						
				AM Peak Hour			PM Peak Hour		
Land Use	**Quantity**		**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
City Park	13.67	Acres	22	N/A	N/A	N/A	N/A	N/A	N/A
Soccer Complex	2	Fields	143	1	1	2	29	13	42
TOTAL			**165**	**1**	**1**	**2**	**29**	**13**	**42**

Source: Institute of Transportation Engineers publication "Trip Generation", 8th Edition

* No peak hour trip generation rates given for this land use.



SUNSET RIDGE PARK
TRIP DISTRIBUTION

Appendix D
One Percent Traffic Volume Analysis Worksheets

One-Percent Volume Analysis

Intersection: **Irvine Ave/Dover Dr**
Scenario: Forecast Year 2013
Time Period: AM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	841	8	0	No
Southbound	887	9	2	No
Eastbound	253	3	0	No
Westbound	395	4	0	No

Intersection: **Irvine Ave/Dover Dr**
Scenario: Forecast Year 2013
Time Period: PM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	863	9	1	No
Southbound	1558	16	4	No
Eastbound	267	3	0	No
Westbound	458	5	1	No

One-Percent Volume Analysis

Intersection: **Irvine Ave/17th St**
Scenario: Forecast Year 2013
Time Period: AM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	897	9	0	No
Southbound	812	8	1	No
Eastbound	909	9	1	No
Westbound	410	4	0	No

Intersection: **Irvine Ave/17th St**
Scenario: Forecast Year 2013
Time Period: PM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	810	8	0	No
Southbound	1034	10	2	No
Eastbound	1177	12	4	No
Westbound	868	9	4	No

One-Percent Volume Analysis

Intersection: **Dover Dr/Westcliff Dr**
Scenario: Forecast Year 2013
Time Period: AM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	808	8	0	No
Southbound	446	4	1	No
Eastbound	670	7	2	No
Westbound				No

Intersection: **Dover Dr/Westcliff Dr**
Scenario: Forecast Year 2013
Time Period: PM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	1191	12	7	No
Southbound	388	4	4	Yes
Eastbound	686	7	6	No
Westbound				No

One-Percent Volume Analysis

Intersection: **Dover Dr/16th St**
Scenario: Forecast Year 2013
Time Period: AM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	831	8	1	No
Southbound	1128	11	3	No
Eastbound	241	2	1	No
Westbound	138	1	0	No

Intersection: **Dover Dr/16th St**
Scenario: Forecast Year 2013
Time Period: PM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	1240	12	8	No
Southbound	1014	10	11	Yes
Eastbound	172	2	2	Yes
Westbound	90	1	0	No

One-Percent Volume Analysis

Intersection: **Dover Dr/Cliff Dr**
Scenario: Forecast Year 2013
Time Period: AM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	837	8	1	No
Southbound	1266	13	4	No
Eastbound	271	3	1	No
Westbound	0	0	0	No

Intersection: **Dover Dr/Cliff Dr**
Scenario: Forecast Year 2013
Time Period: PM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	1370	14	11	No
Southbound	1142	11	13	Yes
Eastbound	170	2	4	Yes
Westbound	0	0	0	No

One-Percent Volume Analysis

Intersection: **Newport/Coast Hwy**
Scenario: Forecast Year 2013
Time Period: AM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	0	0	0	No
Southbound	758	8	1	No
Eastbound	2396	24	1	No
Westbound	1256	13	0	No

Intersection: **Newport/Coast Hwy**
Scenario: Forecast Year 2013
Time Period: PM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	0	0	0	No
Southbound	1076	11	4	No
Eastbound	1572	16	4	No
Westbound	2464	25	3	No

One-Percent Volume Analysis

Intersection: **Riverside/Coast Hwy**
Scenario: Forecast Year 2013
Time Period: AM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	1	0	0	No
Southbound	401	4	1	No
Eastbound	2424	24	4	No
Westbound	1350	14	1	No

Intersection: **Riverside/Coast Hwy**
Scenario: Forecast Year 2013
Time Period: PM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	24	0	0	No
Southbound	524	5	2	No
Eastbound	1819	18	13	No
Westbound	2479	25	9	No

One-Percent Volume Analysis

Intersection: **Tustin/Coast Hwy**
Scenario: Forecast Year 2013
Time Period: AM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	0	0	0	No
Southbound	50	0	0	No
Eastbound	2247	22	5	No
Westbound	1400	14	1	No

Intersection: **Tustin/Coast Hwy**
Scenario: Forecast Year 2013
Time Period: PM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	3	0	0	No
Southbound	85	1	0	No
Eastbound	1681	17	15	No
Westbound	2524	25	10	No

One-Percent Volume Analysis

Intersection: **Balboa Bay Driveway/Coast Hwy**
Scenario: Forecast Year 2013
Time Period: AM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	54	1	0	No
Southbound	5	0	0	No
Eastbound	2117	21	5	No
Westbound	1620	16	3	No

Intersection: **Balboa Bay Driveway/Coast Hwy**
Scenario: Forecast Year 2013
Time Period: PM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	70	1	0	No
Southbound	22	0	0	No
Eastbound	1978	20	15	No
Westbound	2338	23	28	Yes

One-Percent Volume Analysis

Intersection: **Dover/Coast**
Scenario: Forecast Year 2013
Time Period: AM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	110	1	0	No
Southbound	1064	11	5	No
Eastbound	2260	23	7	No
Westbound	1885	19	3	No

Intersection: **Dover/Coast**
Scenario: Forecast Year 2013
Time Period: PM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	123	1	0	No
Southbound	1158	12	17	Yes
Eastbound	1621	16	33	Yes
Westbound	3522	35	11	No

One-Percent Volume Analysis

Intersection: **Bayside/Coast Hwy**
Scenario: Forecast Year 2013
Time Period: AM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	372	4	1	No
Southbound	125	1	0	No
Eastbound	2829	28	0	No
Westbound	1674	17	2	No

Intersection: **Bayside/Coast Hwy**
Scenario: Forecast Year 2013
Time Period: PM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	356	4	4	Yes
Southbound	169	2	0	No
Eastbound	2581	26	7	No
Westbound	3146	31	6	No

One-Percent Volume Analysis

Intersection: **Jamboree/Coast Highway**
Scenario: Forecast Year 2013
Time Period: AM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	496	5	0	No
Southbound	1143	11	1	No
Eastbound	2650	27	0	No
Westbound	1214	12	1	No

Intersection: **Jamboree/Coast Highway**
Scenario: Forecast Year 2013
Time Period: PM Peak Hour

Approach Direction	2013 NP Projected Peak Hour Volume	1% of Projected Peak Hour Volume	Project Peak Hour Volume	Project Peak Hour Surpass 1% of Projected Peak Hour?
Northbound	380	4	0	No
Southbound	1954	20	2	No
Eastbound	2254	23	4	No
Westbound	2438	24	4	No

Appendix D.
Cultural Report

D1: Cultural Report, February 2, 2011.

D2: Paleontological Resources Letter, February 11, 2011.

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Sub-Appendix D1

Cultural Report

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McKenna et al.

History/Archaeology/Architecture/Paleontology

Jeanette A. McKenna, M.A.
Owner and Principal Investigator
Reg. Professional Archaeologist

February 2, 2011

The Planning Center
Attn: John Vang, Assistant Planner
1580 Metro Drive
Costa Mesa, California 92626

RE: Mariner's Point, Newport Beach, California.

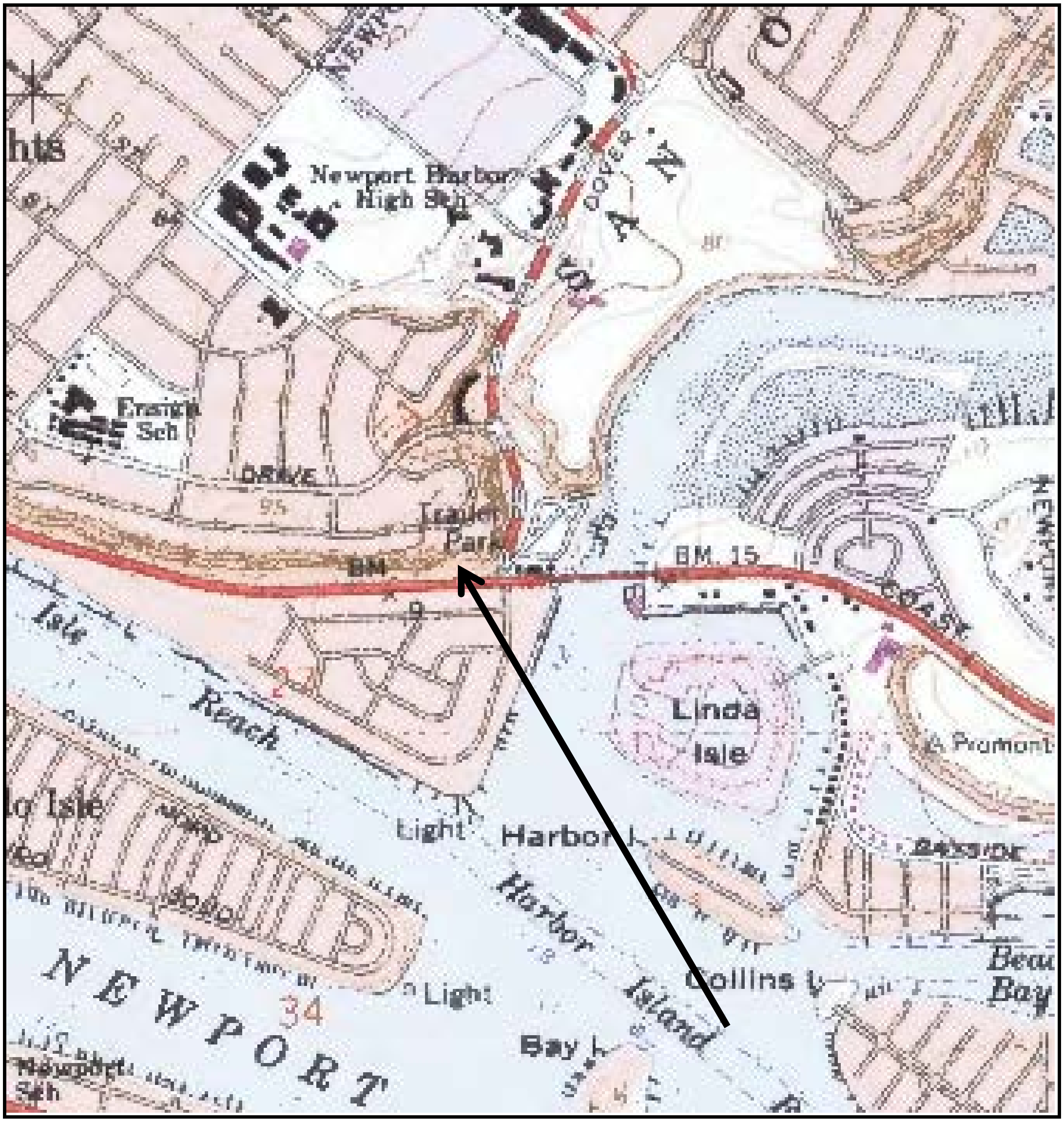
Mr. Vang:

In response to your request, McKenna et al. has completed the preliminary investigations of the Mariner's Point project site in the City of Newport Beach, Orange County, California. This research consisted of a standard archaeological research search at the California State University, Fullerton, South Central Coastal Information Center, Fullerton; a Paleontological Overview completed by the Natural History Museum of Los Angeles County; and a field reconnaissance to assess the standing structure(s) on the property.

The project site is located at the northwestern corner of Dover Drive and West Coast Highway, Newport Beach. The street addresses for the property have been identified as 200-300-320 West Coast Highway and the proposed project would result in the combination of individual parcels into one, larger "Proposed Parcel 1" and/or Tentative Parcel Map 2010-133. The project area has been subjected to various subdivisions and lot assignments, eventually resulting in the 1950s development of a commercial property spanning up to six individual properties.

The proposed project area is an irregularly shaped property with an elongated frontage on West coast Highway and a shorter east and west boundary. The northern boundary is oriented east/west and abuts the sharp rise to the terrace above the site (to the north). This abrupt rise suggests some removal of natural soils for the previous development of the property and the later development of both West Coast Highway and Dover Drive.

The project area covers approximately .75 acres of land currently occupied by a vacant commercial complex and both paved and unpaved parking areas.



Current Mariner's Pointe Project Location (USGS Newport Beach Quadrangle).

Archaeological Records Search:

The archaeological records search was completed by Jeanette A. McKenna, Principal Investigator for McKenna et al., on January 31, 2011. This research confirmed the project area was not previously surveyed for cultural resources. However, a minimum of 28 cultural resources investigations have been completed within one mile of the project area, including studies along West Coast Highway and the northeastern corner of Dover

Drive and West Coast Highway. The majority of these studies have been completed to the northwest of Dover Drive and West Coast Highway and north of Coast Highway and west of Jamboree Road. As a result of the 28 area specific surveys and some additional (unofficial) surveys or independent research, eleven (12) prehistoric archaeological sites, two (2) prehistoric isolated artifacts, and two (2) historic period archaeological sites have been recorded within one mile of the project area, including:

CA-ORA-48	Shell Midden
CA-ORA-49	Shell Midden
CA-ORA-62	Camp Site
CA-ORA-67	Camp Site
CA-ORA-68	Camp Site
CA-ORA-69	Camp Site
CA-ORA-157	Shell Midden
CA-ORA-158	Shell Midden
CA-ORA-159	Shell Midden
CA-ORA-186/H	Shell Midden and Historic Site
CA-ORA-187/H	Shell Midden and Historic Refuse Scatter
CA-ORA-1451	Shell Midden

Of the sites identified above, CA-ORA-62 is mapped as being located in the eastern portion of the current study area and extending to the terrace above the project area. The description of CA-ORA-62, as presented by Nelson (n.d.) reads as follows:

> No. 23 [CA-ORA-62]. Traces of a camp site. Located a little over 1 mile east of Newport Beach at the edge of the marsh and near the base of the bluff. A small cabin belonging to a fisherman and located by the open waters of Newport Beach is situated immediately to the east. The traces of refuse are very slight but the fisherman living nearby stated that a number of skeletons and artifacts such as mortars and pestles had been dug up both here and on top of the bluff. The site is located on the Newport Beach Quad. Map.

Based on this record, it is apparent that the record pre-dates the construction of the 1950s commercial complex and, despite the 1950s development, the project area must be considered highly sensitive to yield evidence of cultural remains, including the potential for additional evidence of human remains. Any ground disturbances on the site must be monitored by a qualified archaeological monitor. Alternatively, the proponent may opt to abandon this site or conduct an archaeological testing program to ascertain the presence/absence of remains within the property and avoid some later identification and project-delaying activities.

Paleontological Overview:

McKenna et al. requested a paleontological overview from the Natural history Museum of Los Angeles County (response not yet received). However, based on studies completed in the general area (e.g. Newport Coast Archaeological Project; Mason et al. 1991:32-33), the area is described as follows:

> “The project area is located on the northeastern flank of the Peninsular Ranges of southern California. Major physiographic features within the area include the San Joaquin Hills, as well as the coastal marine terraces located oceanward of the San Joaquin Hills. Southwest/northeast oriented and generally moderately to steeply sloping canyons drain the San Joaquin Hills and discharge directly into the Pacific Ocean …
>
> “The bedrock of the San Joaquin Hills consists largely of Tertiary-aged sedimentary rock that has been uplifted, folded, and fractured along a series of northwest/southeast oriented faults during the Miocene. Igneous intrusions (diabase dikes) are found along the Miocene-aged faults. Regional uplift has continues through much of the Quaternary as evidenced by a series of marine terrace platforms, frequently mantled with more recent sediments, that extent from the San Joaquin hills to the Pacific Ocean.
>
> “Marine terrace deposits are found in many localities on the southwest flank of the San Joaquin Hills. The marine terrace sediments were deposited on wave-cut platforms during the late Pleistocene. Edgington and Tan (1976) report several marine terrace deposits in the area … in many localities the marine terrace deposits have been covered with a mantle of terrestrial sediments composed of colluvium, slopewash, and eolian deposits. These terrestrial deposits range in thickness from a few centimeters to several meters. Most of the prehistoric archaeological sites found on the coastal portion of the … area were found in the terrace sediment mantle”.

In interpreting the information presented above, the Quaternary deposits of the late Pleistocene and Holocene (igneous intrusions) are not likely to yield evidence of paleontological specimens. However, the sedimentary deposits associated with the Tertiary have been known to yield such specimens. If the proposed project involves excavations that exceed the relative depths of the more recent marine terrace deposits (colluvium, slopewash, eolian materials) and impacts Tertiary sedimentary deposits, there is a potential for fossil remains and a paleontological monitoring program should be implemented. Soils studies should be reviewed to determine whether or not sedimentary deposits are evident in the area and if they will be impacted by redevelopment activities.

Field Reconnaissance:

Jeanette A. McKenna, Principal Investigator for McKenna et al., visited the project area on January 31, 2011. At the time of the site visit, Ms. McKenna found the site to be fenced and relatively inaccessible for a pedestrian survey, but the standing structure(s) was examined. The western elevation of the complex was readily accessible and part of the south elevation was accessible. The remainder of the property was visually examined through breaks in the fence lining or gates that allowed a visual inspection. The photographic record is attached to this letter report.

The existing structures were vacant at the time of the reconnaissance survey and many of the exterior windows were covered with plywood. The interior windows (inside the fence) were partially boarded and/or partially exposed for examination.

The 1950s commercial complex consists of two wings located on the western half of the property. The shorted wing was constructed on the western property boundary and extents from West Coast Highway to the rear of the property (at the bluff). The second wing was constructed along the northern boundary of the property. Parking and access is provided through a driveway off West Coast Highway and parking is available to the east and south of the buildings. The eastern half of the property is partially paved (asphalt) and the northern boundary of the property (at the base of the bluff) is lined with mature trees.

The property is fronted by a paved sidewalk and curbing, light poles, and other infrastructure, as is the eastern boundary on Dover Drive. An access drive is located to the west of the building(s) and another concrete walkway and curb bound the property boundary.

The existing structures are simple wood framed buildings on concrete slabs and exhibiting stucco siding. The exterior walls are flat and the elevation on West Coast Highway has no windows. Windows on the west elevation (covered with plywood and security bars) are standard casement windows. Seven sets of windows are evident on the west elevation, suggesting up to seven units within this wing. The roofs are flat (or slightly slanted for run-off) with no gutters. The rooflines vary to accommodate the rise of the property from south to north. There is one covered access door and three vents on the northwestern corner of the building (west elevation), suggesting the presence of a utility room or rear access to rest room facilities.

The east elevation of the western wing has been boarded with plywood. No windows or doors are visible. This wing also exhibits a covered causeway supported by simple 4’ x 4’ posts. The entries are accessed on both wooden and concrete surfaced. There is no vegetation in these areas.

The north wing meets the northern extent of the west wing and extends to the east. Here, the windows and doors are not boarded and consist of large fixed windows, smaller ventilation windows beneath the fixed windows, and entry doors with single, large glass panels. There are seven to nine units in the wing. Between the second and third units (from the west) there is a decorative rock and mortar display window with a single, large bay window. All of these windows and doors are intact. The roof of this wing is flat and exhibits no gutters or other decorative elements.

Signage is located in to areas along the West Coast Highway Frontage. One smaller sign and pole is located at the southeastern corner of the west wing. This sign is a simple rectangle on a round pole. No identification is present on the sign. The second sign is located on a more decorative feature and consists of a taller pole with two blank sign boards and a square clock (with two faces). There is also outside lighting on this pole. Thje clock exhibits Roman numerals on a white background. No other marking were noted. Overall, the clock is a very flat and non-descript feature.

In assessing the potential significance for the improvements on this property, McKenna et al. could not associated these improvements with any significant individuals or events (Criteria A and B of CEQA). Likewise, McKenna et al. found that the existing improvements do not meet the minimum criteria for recognition under architecture (Criterion C). These improvements are not indicative of the work of a master architect, exhibit no unique or outstanding architectural elements, and are not indicative of any specifically important style of architecture. Based on these findings, the existing improvements are not indicative of a significant historical resource and, therefore, their proposed demolition will not result in any adverse environmental impacts.

Conclusions:

The recent research confirmed the project area was not previously surveyed for cultural resources. Nonetheless, one prehistoric archaeological site (CA-ORA-62) is mapped as being within the eastern portion of the project area and likely to yield evidence of buried resources (including a potential for human remains). As such, CA-ORA-62 is considered potentially significant under CEQA Criterion D.

The project area is considered moderately sensitive for paleontological resources. The shallow Quaternary deposits are not conducive to yielding paleontological specimens. However, should proposed development require excavations that exceed the relative depths of the recent collluvial deposits and impact sedimentary deposits, paleontological monitoring should be conducted be a qualified paleontological monitor.

The improvements currently present within the project area are not significant cultural resources and, by definition, fail to meet the requirements for recognition as an historical resource under CEQA (Criteria A, B, and/or C). Therefore, no further studies are warranted within respect to the standing structures. However, McKenna et al. recommends an archaeological monitor be on site during the demolition and clearance of the structures to insure no additional evidence of prehistoric resources is overlooked.

McKenna et al. also recommends the proponent conduct a Phase II archaeological investigation of CA-ORA-62. Based on the results of the Phase II studies, a Phase III investigation may be warranted.

Archaeological monitoring should be conducted for all earthmoving activities within the property, given the relative sensitivity for the area to yield prehistoric archaeological resources. The archaeological monitoring program should incorporate the presence of a local Native American representative (Gabrieldiño and/or Juaneño).

If, at any time, evidence of human remains is identified, the County coroner must be notified immediately and permitted to examine the remains. All standard protocols must be followed and, if the remains are identified as being of Native American origin, the Native American Heritage Commission will identify the Most Likely Descendent (MLD) to assist in the treatment of the remains.

Any questions regarding the information presented in this abbreviated report should be directed to Jeanette A. McKenna, Principal Investigator, McKenna et al., Whittier, California.

Sincerely,

Jeanette A. McKenna

Jeanette A. McKenna, Principal
McKenna et al.

Attachments: Archaeological Records Search
Photographs

ATTACHMENT A:

Archaeological Records Search

McKenna et al.

History/Archaeology/Architectural History/Ethnography/Paleontology

Jeanette A. McKenna, MA
Registered Prof. Archaeologist
Owner and Principal Investigator

January 31, 2011

HISTORICAL RESOURCES RECORD SEARCH: Mariner's Point, Newport Beach, Orange County, California

In response to a request, McKenna et al. completed an in-house records search for the project identified above, as illustrated on the **USGS Newport Beach Quadrangle**.

Historical Resources:

Prehistoric Archaeological Resources:

12	Prehistoric Archaeological Sites
0	Pending Prehistoric Archaeological Sites
0	Prehistoric Districts
2	Prehistoric Isolates

Historic Archaeological Resources (sites older than 50 years of age):

2	Historic Archaeological Sites
0	Pending Historic Archaeological Sites
0	Historic Structures
0	Historic Districts
0	Historic Isolates
0	Possible historic structures/archaeological site locations determined/suggested from historic maps. Maps checked: Santa Ana (1896); Santa Ana (1901); Santa Ana (1945); Santa Ana (1959); Newport Beach (1965); Newport Beach (1981)

Cultural Landscapes:

0	Cultural Landscapes

Ethnic Resources:

0	Ethnic Resources

Heritage Properties (designated by State and Federal commissions):

0	National Register of Historic Places (listed)
0	National Register of Historic Places (eligible)
0	California Historical Landmarks
0	California Points of Historical Interest

6008 Friends Avenue, Whittier, California 90601-3724 email = jmckena@earthlink.net
(562) 696-3852 OFFICE and FAX (562) 754-7712 CELL (480) 664-0682 AZ

PREVIOUS HISTORICAL RESOURCE INVESTIGATIONS:

Historical resource reports for the project area include:

28	Area Specific Survey Reports
0	General Area Overviews

In addition to the Center's historical resources files, the following publications, manuscripts, or correspondence were consulted:

1986	Survey of Surveys: A Summary of California's Historical and Architectural Resource Surveys
1988	Five Views: An Ethnic Sites Survey for California
2010	California Historical Landmarks
2010	California Points of Historical Interest
2010	Determination of Eligibility - Records entered into the OHP computer files
2010	Directory of Historic Properties – Records entered into the OHP computer file of historic resources

SENSITIVITY OF PROJECT AREA FOR HISTORICAL RESOURCES:

Based on the above information, available historical records and maps, and comparisons with similar environmental localities, the sensitivity assessment (High, Moderate, Low, or Unknown) for his project area is:

Prehistoric Archaeological Sites:	**HIGH**
Historic Archaeological Resources:	**MODERATE**
Historic Resources (built environment):	**MODERATE**
Cultural Landscapes:	**UNKNOWN**
Ethnic Resources:	**UNKNOWN**

Comments: As late as 1945, Dover Drive was not developed and a dirt road (predecessor of West Coast Highway ended at a point west of the current project area. No development in the area of the current project site was illustrated. The existing structure on the property (NW corner of Dover Drive and West Coast Highway was constructed in the mid- to late-1950s. This structural complex is not illustrated on the later USGS quadrangles, as the area is identified as urban and individual structures are not illustrated.

RECOMMENDATIONS:

- In order to minimally comply with CEQA, NEPA, and/or Section 106 of the National Historic Preservation Act, a field survey should be conducted by a qualified professional for historical resources within portions of the project area not previously surveyed for such resources. A list of qualified archaeologists can be found at www.chrisinfo.org.

- A CEQA Initial Study of "MAYBE" for potential adverse environmental impact(s) to historical resources is warranted unless it can be documented by a qualified professional that NO resources older than 45 years of age exist on the property. Implementation of the above recommendation(s) will ensure that existing historical resources will be inventtoried and evaluated, and that appropriate mitigation measures will be recommended to avoid adverse impacts.

- If appropriate mitigation measures are not proposed for significant historical resources within the project area, then subsequent destruction of these resources may violate the California Environmental Quality Act, National Environmental Policy Act, National Historic Preservation Act, California codes and/or various local governmental ordinances.

- If prehistoric or historic artifacts over 50 years of age are encountered during land modification, then activities in the immediate area of the find(s) should be halted and an on-site inspection should be performed immediately by a qualified archaeologist. This professional will be able to assess the find, determine its significance, and make recommendations for appropriate mitigation measures with the guidelines of the California Environmental Quality Act (CEQA) and/or the National Environmental Policy Act (NEPA).

- If human remains (or potentially human remains) are encountered on the property, then the San Bernardino County Coroner's Office MUST be notified within 24 hours of the discovery and all work in the vicinity must be halted until clearance is given by the Coroner and other involved governmental agencies that work can resume. The County Coroner is located at 175 South Lena Road, San Bernardino, CA 92415-0037. Contact Numbers are: (909) 387-2543 in San Bernardino; (760) 955-8535 in Victorville; (760) 365-1668 in Yucca Valley; and (760) 326-4825 in Needles.

- The County of San Bernardino requests that historical resource data and artifacts collected within this project area be permanently curated at a repository within the County. Per a State Historical Resources Commission motion dated February 7, 1992, the selected repository should consider 36 CFR 79, Curation of Federally-owned and Administered Archaeological Collection; Final Rule, as published in the Federal Register, September 12, 1990, and as amended, for archival collections standards.

Any questions regarding the information presented above should be directed to Jeanette A. McKenna, Principal Investigator or McKenna et al., at (562) 696-3852.

REFERENCES

Anonymous

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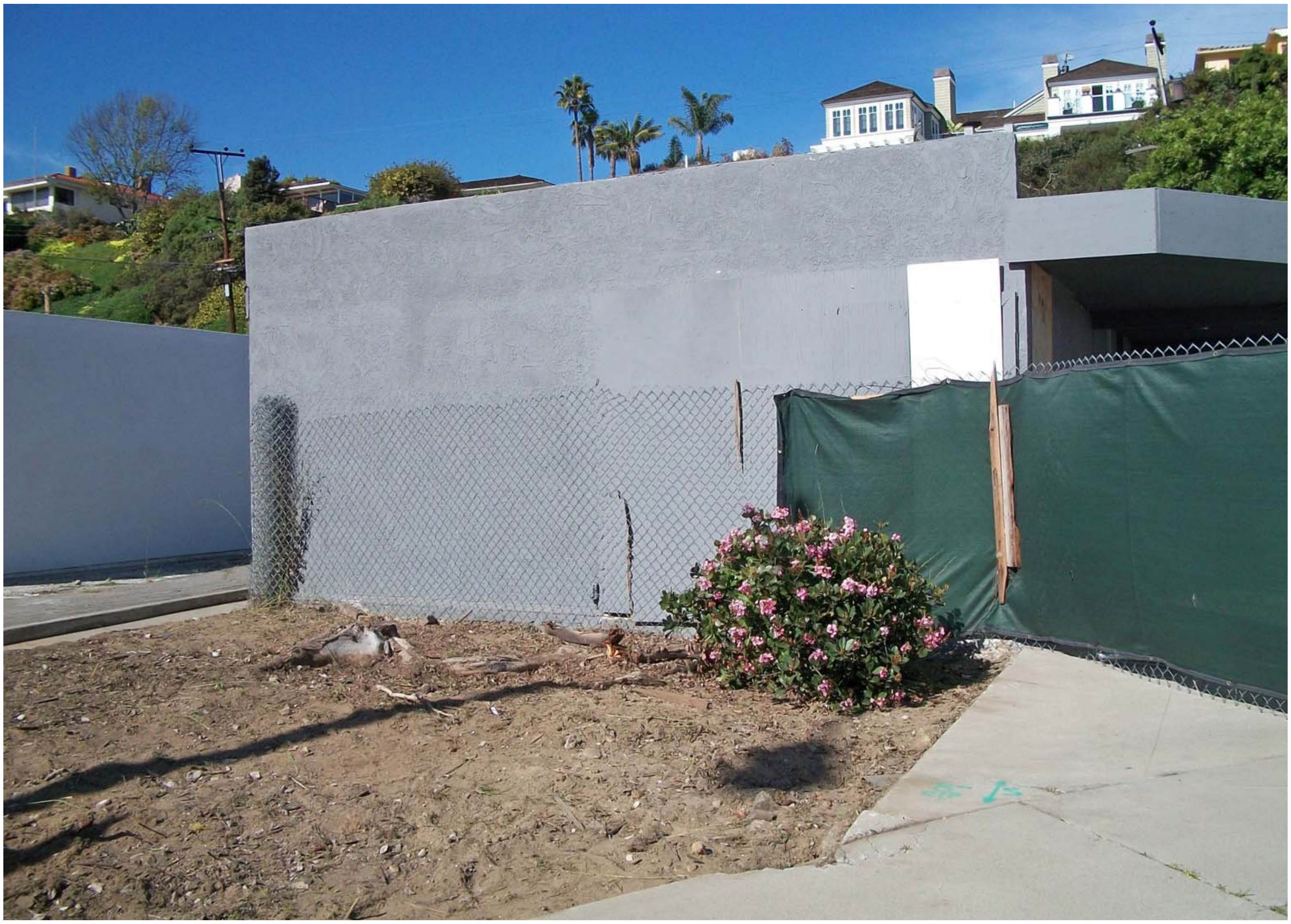
ATTACHMENT B:

Photographic Record

1. Signage Fronting Coast Highway (North).

2. Overview of Frontage on Coast Highway (Northeast).

3. Overview of Frontage on Coast Highway (Northwest).

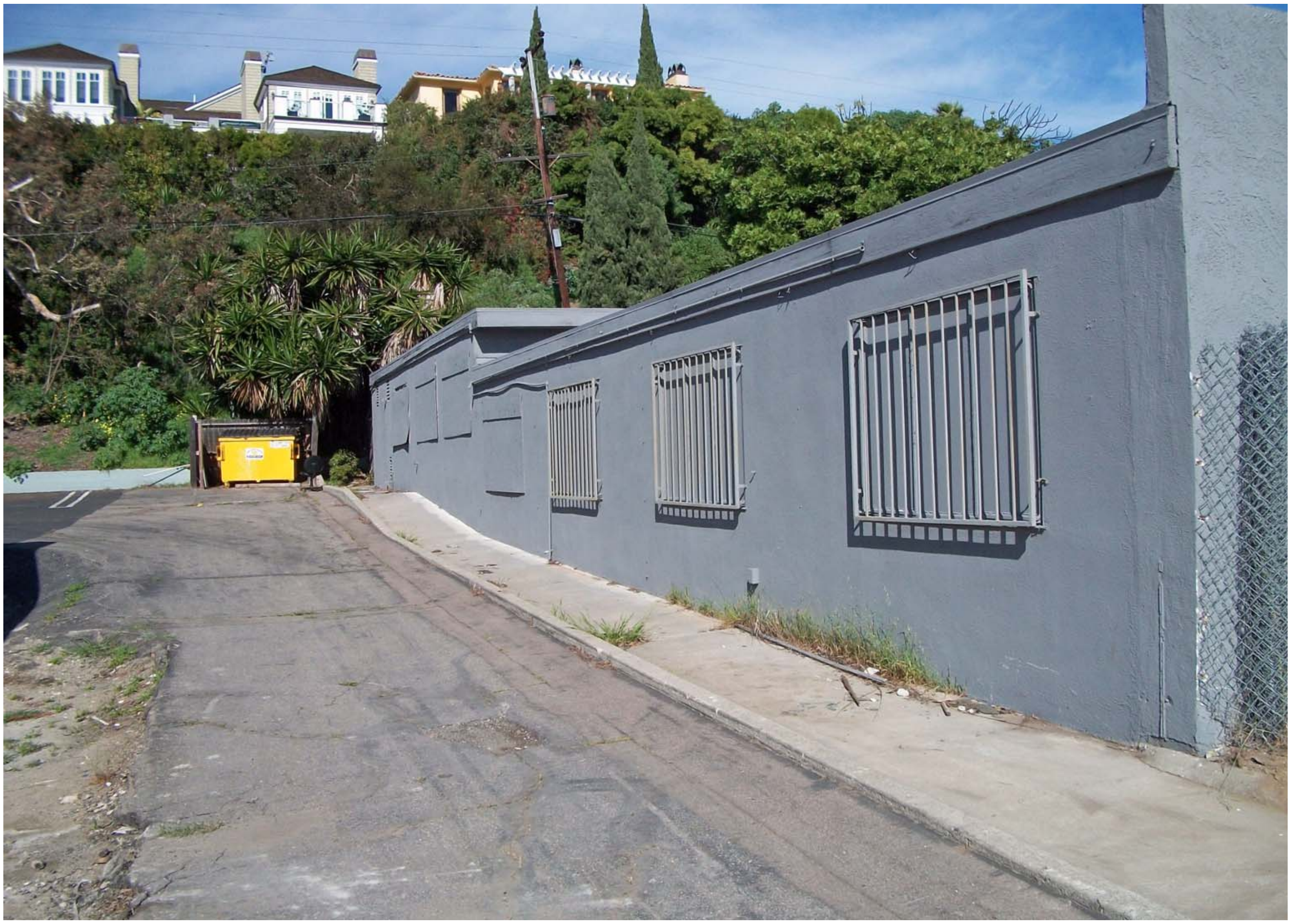


4. Flat Elevation at Southwestern Corner of Property (Northwest).

5. Overview of Property Located West of Project Area (Northwest).

6. Overview of Coast Highway from Project Area (West).

7. Overview of Western Elevation of Project Area from Coast Highway (North).

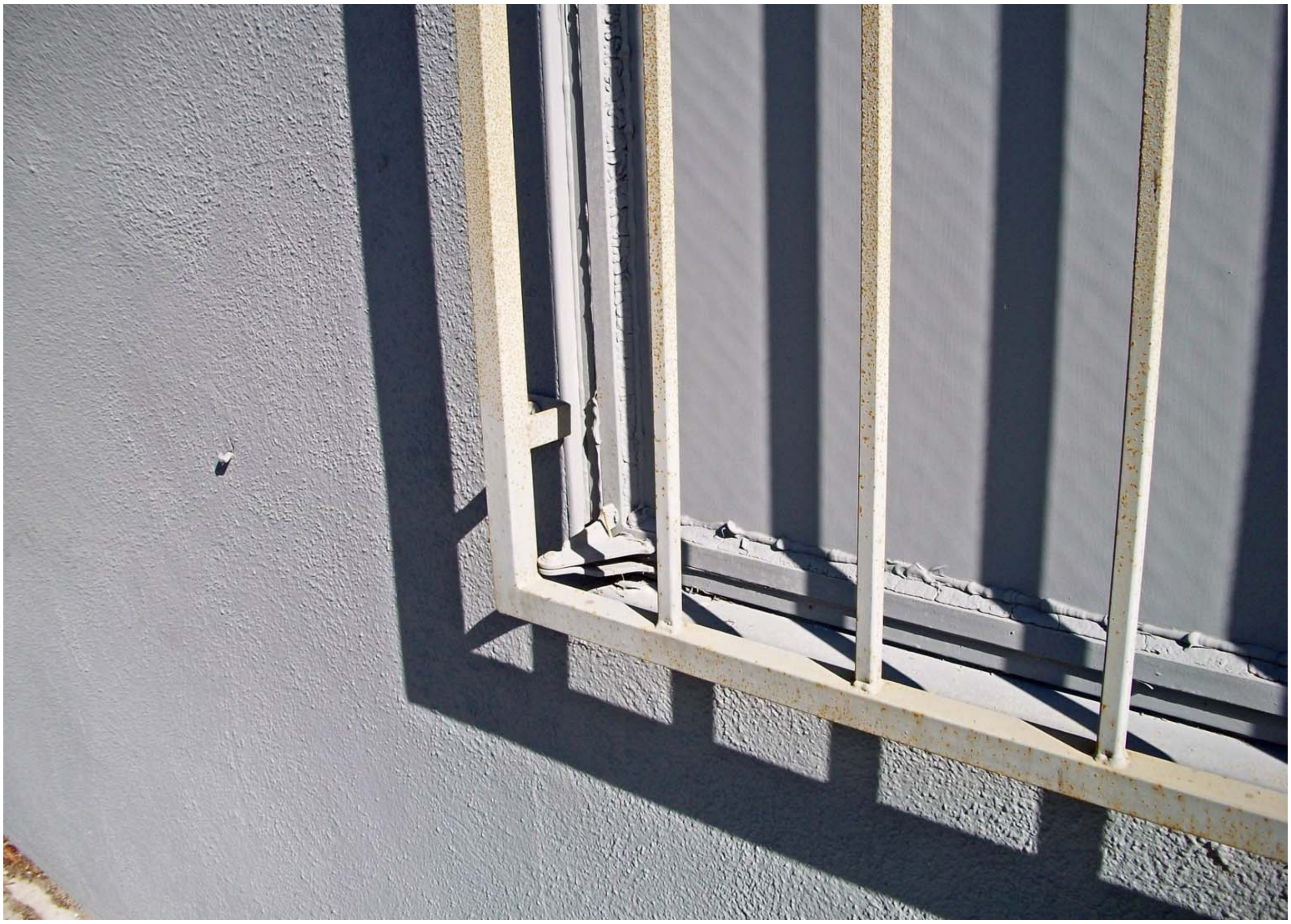


8. Overview of West Elevation of Project Area (North/Northeast).

9. Detail of West Elevation in Northwest Corner of Property (East).

10. Overview of West Elevation from Northwest (Southeast).

11. View of West Elevation from Northwest Corner fo Property (South).



12. Detail Identifying Casement Windows on West Elevation.

13. View of South Elevation from Southwest Corner (North).

14. View of Interior Ell, West Side of Property (Northwest).

15. Interior Corner of Buildings from Coast Highway (North).

16. Overview of South Elevation, Central Portion of Property (North).

17. Overview of Northern Ell from Coast Highway (North/Northeast).

18. Blank Signage and Clock Fronting Coast Highway (Northeast).

19. Overview of South Elevation from Coast Highway (Northwest).

20. Eastern Extent of Northern Ell (North/Northeast).

21. Overview of Parking Area Located to East of Building Complex (East/Northeast).

Sub-Appendix D2

Paleontological Resources Letter

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Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007

tel 213.763.DINO
www.nhm.org

NATURAL
HISTORY
MUSEUM
LOS ANGELES COUNTY

Vertebrate Paleontology Section
Telephone: (213) 763-3324
FAX: (213) 746-7431
e-mail: vrhuc@nhm.org

11 February 2011

McKenna et al.
6008 Friends Avenue
Whittier, California 90601-3724

Attn: Jeanette A. McKenna

re: Paleontological resources for the proposed Commercial Property at Coast Highway & Dover Drive Project, in the City of Newport Beach, Orange County, (Sect. 27, T 6 S, R 10 W), project area

Dear Jeanette:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for the proposed Commercial Property at Coast Highway & Dover Drive Project, in the City of Newport Beach, Orange County, (Sect. 27, T 6 S, R 10 W), project area as outlined on the portion of the Newport Beach USGS topographic quadrangle map that you sent to Dr. Samuel A. McLeod on 21 January 2011. We do not have any vertebrate fossil localities that lie within the proposed project site boundaries, but we do have localities nearby from the same or similar sedimentary units as occur in the proposed project area.

At the top of the bluff in the proposed project area the surficial deposits consist of marine Quaternary terrace deposits with a mixture of terrestrial components. In addition, the marine late Miocene Capistrano Formation outcrops on the cliff face within the proposed project area and underlies the Quaternary terrace deposits. Just to the west of the proposed project area the older marine Late Miocene Monterey Formation also outcrops on the cliff face and may underlie the Capistrano Formation within the proposed project area. Our closest vertebrate fossil locality from these Quaternary deposits is LACM 6370, situated just north of west of the proposed project area, from the Hoag Hospital lower campus parcel near the intersection of Superior Avenue and the Pacific Coast Highway, that produced a specimen of a fossil horse, *Equus*, even though it is nominally from the marine Quaternary terrace deposits near the top of the Newport Mesa in this area. Other nearby localities in the marine Quaternary terrace deposits include

LACM 3267, near the intersection of 19th Street and Anaheim Avenue west-northwest of the proposed project area, that produced a specimen of a fossil elephant, Proboscidea, and LACM 4219, along the Newport Freeway near Santa Isabel Avenue north-northeast of the proposed project area, that produced fossil specimen of sea turtle, *Chelonia*, and camel, Camelidae. In the cliffs just below locality LACM 6370 mentioned above, we have locality LACM 6371 from the underlying marine late Miocene Monterey Formation that produced specimens of undetermined fossil marine mammals. Our next two closest localities in this rock unit, LACM 1160 and LACM 7139 occur in the cliffs along Backbay Drive on both sides of San Joaquin Hills Road east-northeast from the proposed project area across Newport Backbay, have produced fossil bony fish, Osteichthyes, and baleen whales, Mysticeti. Nearby to those two localities we also have locality LACM (CIT) 580 that produced a specimen of a fossil sperm whale, Physeteridae, from the younger marine late Miocene Capistrano Formation exposures in the cliff.

Excavations anywhere in the proposed project area may well encounter significant fossil vertebrates from the marine (and terrestrial) Quaternary terrace deposits. Deeper excavations that extend into the marine Late Miocene Capistrano Formation or the older marine Late Miocene Monterey Formation, presumably underlying the Quaternary Terrace deposits in this area, also may well encounter significant vertebrate fossil remains. Thus, any substantial excavations in the proposed project area should be closely monitored to quickly and professionally collect any vertebrate fossil remains without impeding development. Any fossils collected from mitigation should be placed in an accredited scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,

Vanessa R. Rhue

Vanessa R. Rhue
Vertebrate Paleontology

enclosure: draft invoice

Appendix E.
Geotechnical Evaluations

E1: Site Geotechnical Study, July 14, 2010.

E2: Retaining Wall Study, July 1, 2010.

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Sub-Appendix E1

Site Geotechnical Study

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MACTEC
engineering and constructing a better tomorrow

July 14, 2010

Mr. Tod Ridgeway
VBAS Properties
1775 B. Newport Boulevard
Costa Mesa, California 92627

Subject: **LETTER OF TRANSMITTAL**
Report of Geotechnical Consultation
Proposed Mariner's Pointe Retail and Parking Structures
Northwest Corner of Dover Drive and West Coast Highway
Newport Beach, California
MACTEC Project 4953-10-0881

Dear Mr. Ridgeway:

We are pleased to submit the results of our geotechnical consultation for the proposed Mariner's Pointe Retail and Parking Structures to be constructed at the northwest corner of Dover Drive and West Coast Highway in the city of Newport Beach, California. This consultation was conducted in general accordance with our proposal dated June 7, 2010 that you authorized June 10, 2010.

The scope of our services was planned with you and your design team.

The results of our consultation and design recommendations are presented in this report. Please note that you or your representative should submit copies of this report to the appropriate governmental agencies for their review and approval prior to obtaining a building permit.

It has been a pleasure to be of professional service to you. Please call if you have any questions or if we can be of further assistance.

Sincerely,

MACTEC Engineering and Consulting, Inc.

Lan-Anh Tran
Project Engineer

Rosalind Munro
Principal Engineering Geologist

ROSALIND MUNRO
NO. 1269
CERTIFIED
ENGINEERING
GEOLOGIST

Marshall Lew, Ph.D.
Senior Principal/Vice President

MARSHALL LEW
No. 522
EXP. 3-31-11

P:\4953 Geotech\2010-proj\100881 VBAS Properties-Mariner's Pointe\4.0 Project Deliverables\4.1 Reports\Final Report\4953-10-0881R01.doc\MS:tm
(4 copies submitted)

Attachments

REPORT OF GEOTECHNICAL CONSULTATION
PROPOSED MARINER’S POINTE RETAIL AND PARKING STRUCTURES

NORTHWEST CORNER OF DOVER DRIVE AND WEST COAST HIGHWAY
NEWPORT BEACH, CALIFORNIA

Prepared for:

VBAS PROPERTIES

Costa Mesa, California

MACTEC Engineering and Consulting, Inc.

Los Angeles, California

July 14, 2010

Project 4953-10-0881

TABLE OF CONTENTS

TABLE OF CONTENTS - continued

LIST OF FIGURES

Figure

EXECUTIVE SUMMARY

We have completed our geotechnical consultation of the site of the proposed Mariner's Pointe Retail and Parking Structures to be constructed at the northwest corner of Dover Drive and West Coast Highway in Newport Beach, California for VBAS Properties. Prior pertinent subsurface explorations, engineering analyses, and foundation design recommendations are summarized below.

Prior geotechnical investigations were performed by MACTEC and by others at the site of the proposed Mariner's Pointe Retail and Parking Structures. Several borings from the previous investigations are considered applicable for this current project. No new borings were drilled.

The prior pertinent borings drilled at the site shows fill soils, up to 5 feet in thickness, were encountered in one of the borings. The fill soils consist of silty sand and sandy silt. Deeper fill soils may be encountered at locations not explored.

Natural soils at the site consist of recent marine deposits, colluvium, and siltstone bedrock of the Capistrano formation. The recent marine deposits occupy the lower, more level portions of the site and consist of silty sand, silt, clayey silt, sandy silt and silty clay extending to depths ranging from 8 to 15 feet below the existing ground surface; the recent marine deposits are generally soft and compressible. The Capistrano formation, which consists of siltstone, clayey siltstone, and diatomaceous siltstone, underlies the recent marine deposits and is locally exposed on the slopes. The colluvium consists of silty sand and sand with some siltstone fragments and locally mantles the slope. The on-site clayey soils are medium expansive.

Ground water, where encountered, was measured between 8 and 11 feet below the ground surface in the prior borings at the site.

The corrosion studies were previously performed by Schiff Associate. The results indicate that the on-site soils and bedrock are severely corrosive to ferrous metals and severe for sulfate attack on concrete.

The existing fill soils are not suitable for support of the proposed Mariner's Pointe retail and parking structure on spread footings. The proposed structure can be supported on shallow spread footings underlain by a minimum of 5 feet of properly compacted fill soils. The footings should extend at least 2 feet below the lowest adjacent grade. Alternatively, the footings could be deepened to extend into the Capistrano formation materials. The on-site sandy soils are suitable for use as compacted fill, however, some of the on-site clay and silt soils may be very wet and soft and difficult to compact and as such, not suitable for use in the compacted fill. The building floor slab and site paving can be supported on grade if the grading recommendations are followed.

1.0 SCOPE

This report provides foundation design information for the proposed Mariner's Pointe Retail and Parking Structures. The location of the site is shown in Figure 1, Vicinity Map. The locations of the proposed retail and parking structures, our prior pertinent borings and test pits, and the prior borings by Krazan & Associates, Inc. (Krazan) are depicted in Figure 2, Plot Plan.

We previously performed geotechnical investigations and evaluations at the site for an earlier larger project that was not constructed. The prior reports are summarized below:

- Geotechnical Investigation, Proposed Retail Development, 100 through 600 West Coast Highway, report dated April 6, 2006 (our Job No. 4953-04-3742).
- Geologic Evaluation, Proposed Retail Development, 100 through 600 West Coast Highway, report dated January 28, 2005 (our Job No. 4953-04-3741).
- Supplement to Geologic Evaluation, Proposed Retail Development, 100 through 600 West Coast Highway, letter dated April 5, 2005 (our Job No. 4953-04-3741).
- Existing Slope Conditions, Proposed Retail Development, 100 through 600 West Coast Highway, report dated January 4, 2006 (our Job No. 4953-04-3741.02).

In addition, we reviewed the geotechnical report prepared by Krazan, dated January 5, 2004, for an earlier design of the same project. This investigation considered the geologic and geotechnical information available from our prior work at the site, the prior investigation by Krazan, and our prior geotechnical experience in the site vicinity.

The recommendations in the current report were developed in part using geotechnical information from the prior above investigations submitted. We have reviewed the prior referenced reports and accept responsibility for the use and interpretation of the data presented in those report, and we concur with the interpretation of data as presented in those report.

This consultation was authorized to determine the static physical characteristics of the soils at the site of the proposed Mariner's Pointe retail and parking structures, and to provide recommendations for foundation design, floor slab support, and grading for the development. We were to evaluate the existing soil and ground-water conditions at the site, including the corrosion potential of the soils, and develop recommendations for the following:

- A feasible foundation system design along with the necessary design parameters, including the estimated settlement due to the expected loadings.
- Subgrade preparation and floor slab support.
- Design of retaining walls.
- Grading, including site preparation, excavation and slopes, the placing of compacted fill, and quality control measures relating to earthwork.

The scope of this consultation did not include the assessment of general site environmental conditions for the presence of contaminants in the soils and ground water of the site was beyond the scope of this consultation.

Our recommendations are based on the results of our previous field explorations, laboratory tests, and appropriate engineering analyses and from results of a report prepared by Krazan and Associates. Summary of our prior pertinent field explorations and laboratory tests, are presented in Appendix A. The results of Krazan field explorations and laboratory tests are presented in Appendix B.

2.0 PROJECT DESCRIPTION

VBAS Properties plans to construct the Mariner’s Pointe retail and parking structures at the northwest corner of West Coast Highway and Dover Drive in Newport Beach, California as shown on Figure 2. The proposed retail building and parking structure will be two stories in height. The building and parking structure will be at grade. No subterranean structures are proposed. The proposed retail building is planned for the eastern one-third of the site. The parking structure will cover the remainder of the site.

A retaining wall, up to 14 feet in height, is planned for the northern property line, which will extend onto the adjoining property to the west.

Structural loadings for the proposed retail and parking structures are not available at this time. Based on our experience with similar projects, we estimated that the maximum column dead-plus-live loads will be on the order of 300 kips.

3.0 SITE CONDITIONS

The site of the proposed Mariner’s Pointe retail and parking structures is located at the northwest corner of Dover Drive and West Coast Highway in Newport Beach, California. The existing topography at the site is depicted in Figure 2 and consists of a street-level portion as well as an ascending slope (formerly a sea bluff) to the north. The street-level portion of the site slopes gently toward the highway and constitutes the majority of the site.

Existing one- and two-story structures occupy the street-level portion of the site that were used for commercial businesses. The street-level portion of the site is bordered by West Coast Highway on the south, Dover Drive on the east, the ascending slope on the north, and an existing property on the west. Various underground utilities cross the site.

The south-facing, ascending slope ranges in height from about 45 to 50 feet and has a typical gradient of 2:1 (horizontal to vertical) with local steeper areas of 1½:1. The upper portion of the slope is located within the boundaries of several adjacent residential properties. The existing topography and site boundaries relative to the existing structures at street level and upslope are depicted in Figure 2. A heavy vegetative cover is present over much of the slope area.

4.0 EXPLORATIONS AND LABORATORY TESTS

The soil conditions beneath the site were previously explored by MACTEC and by Krazan and Associates (Krazan). The locations of the subsurface exploration borings are shown on Figure 2. Two of our prior borings from a 2006 investigation are located at the site of the proposed retail and parking structures (our Job No. 4953-04-0372). Prior data were also available from our test pits performed at the site in 2004 (our Job No. 4953-04-3741). Details of the prior explorations and logs of our prior pertinent borings and test pits are presented in Appendix A. The logs of eight prior pertinent borings by Krazan and Associates, drilled to depths of 8 to 16 feet using hollow-stem auger drilling equipment, are presented in Appendix B.

Laboratory tests were previously performed by MACTEC and Krazan on selected soil and bedrock samples obtained from the prior pertinent borings to aid in the classification of the soils and to determine the pertinent engineering properties of the foundation soils. The following tests were previously performed by us:

- Moisture content and dry density determinations.
- Atterberg limits.
- Direct shear.
- Consolidation.
- Compaction.
- Grain size analyses and percent fines determinations.
- Expansion Index.
- Stabilometer (R-Value).
- Corrosion.

The testing was done in general accordance with applicable ASTM specifications. Details of our prior pertinent laboratory testing program and test results are presented in Appendix A. The results of the Krazan prior pertinent laboratory testing are presented in Appendix B.

5.0 SOIL CONDITIONS

Fill soils, up to 5 foot thick, were encountered in one of the prior borings at the site of the proposed development. Deeper fill soils may be found elsewhere at the site.

Natural soils consist of recent marine deposits, colluvium, and siltstone bedrock of the Capistrano formation. The recent marine deposits occupy the lower, more level portions of the site and consist of silty sand, silt, clayey silt, sandy silt and silty clay extending to depths ranging from 8 to 15 feet below the existing ground surface. The recent marine deopists are generally soft and compressible. The Capistrano formation, which consists of siltstone, clayey siltstone, and diatomaceous siltstone, underlies the recent marine deposits and is locally exposed on the slopes. The colluvium consists of silty sand and sand with some siltstone fragments and locally mantles the slope. The on-site clayey soils are medium expansive.

Ground water, where encountered, was measured between 8 and 11 feet below the ground surface in the prior borings at the site.

The corrosion studies were previously performed by Schiff Associates. The results indicate that the on-site soils and bedrock are severely corrosive to ferrous metals and severe for sulfate attack on concrete. The report of corrosion studies presented in Appendix A should be referred to for a discussion of the corrosion potential of the soils, and for potential mitigation measures.

6.0 GEOLOGY

6.1 GEOLOGIC SETTING

The site is located at the southern edge of Newport Mesa in the Coastal Plain of Los Angeles. Newport Mesa is a portion of a formerly continuous land surface that includes portions of the San Joaquin Hills, Huntington Beach Mesa, and Bolsa Chica Mesa. The inland arm of Newport Bay is located about 500 feet east of the site and occupies a portion of Newport Canyon that separates Newport Mesa from the San Joaquin Hills. The local geology is depicted on Figure 3.

Regionally, the site is located at the southern margin of the Los Angeles Basin. The Los Angeles Basin is a coastal plain between the Santa Monica Mountains to the north, the Puente Hills and Whittier fault to the east, the Palos Verdes Peninsula and Pacific Ocean on the west and south, and the Santa Ana Mountains and San Joaquin Hills on the southeast and southwest. The Los Angeles Basin is located in the northern portion of the Peninsular Ranges geomorphic province and is a northwest-trending alluviated lowland plain, sometimes called the Coastal Plain of Los Angeles. The basin is underlain by a deep structural depression which has been filled by both marine and continental sedimentary deposits, which rest on a basement complex of presumably igneous and metamorphic composition (Yerkes et al., 1965). The prominent structural features within the Los Angeles Basin include the central lowland plain, the uplifted Palos Verdes Hills, and the northwest trending line of low hills and mesas, uplifted by the Newport-Inglewood fault zone.

6.2 GEOLOGIC MATERIALS

6.2.1 General

The geologic materials beneath the site include artificial fill, colluvium, recent deposits of marine origin and siltstone bedrock of the Pliocene age Capistrano Formation. A description of each material is provided in the following sections.

6.2.2 Pavement

The borings in the parking areas at street level encountered between 2 and 4 inches of asphalt over 0 to 6 inches of base. In West Coast Highway, we found 11 inches of asphalt over 14 inches of base at the location excavated.

6.2.3 Artificial Fill

Artificial fill up to 5 feet in thickness was encountered in one of our prior borings. Artificial fill in the street level portion of the site consists of sand and silt deposits.

6.2.4 Colluvium

Colluvium was observed to locally mantle the slope at the site. Where observed in the test pits the colluvium consists of silty sand and sand with some siltstone fragments and some subrounded gravel (to about 1 inch in size). This material is derived primarily from the terrace deposits that cap the bedrock exposed in the slope face and forms a soil cover ranging in thickness from about 6 to 24 inches.

6.2.5 Recent Marine Deposits

The street level portion of the site is underlain by recent marine deposits consisting of fine- to medium-grained sand and clayey silt deposits (Qes on Figure 3). The clayey silt deposits are locally organic-rich. Based on a historic topographic map (U.S. Geological Survey, 1901) and the material descriptions in the borings, we interpret these materials to be recent beach and estuary deposits similar to those currently exposed in the Newport Back Bay. These materials mantle a marine abrasion platform formed on siltstone bedrock that was encountered at depths ranging from 8 to 16 feet beneath the site.

6.2.6 Capistrano Formation

Siltstone bedrock of the Pliocene-age Capistrano Formation is locally exposed on the slope and was exposed in the test pits within and near the site boundaries. The siltstone forms the lower portion of the slope along the northern site boundary and a buried abrasion platform underlying the street level portion of the site. Where observed at the site, the Capistrano Formation materials consist of massive to moderately well-bedded, thinly-bedded to laminated, siltstone and sandy siltstone with occasional sandstone interbeds that are locally fossiliferous. Surface exposures of the Capistrano Formation are moderately to highly weathered and are heavily vegetated throughout the majority of the on-site slope. Localized cemented layers in the Capistrano Formation were encountered in some of the borings and were observed as cemented beds in outcrop exposures.

The siltstone encountered in the borings was predominantly dark gray and unoxidized with a strong hydrogen sulfide odor. The results of the corrosion testing also show that indicators of potential “chemical-reaction swelling” (expansion) in the bedrock are present, including positive sulfides, high sulfates, and low Redox (oxidation-reduction potential).

Based on the moisture-density characteristics of samples of the Capistrano Formation siltstone (high moisture contents and low dry densities), it is likely that the siltstone is diatomaceous.

6.3 GROUND WATER

The site is located in Section 27, Township 6 South, Range 10 West in a low-lying coastal area at the base of a former sea bluff. According to the California Geological Survey (CGS, formerly the California Division of Mines and Geology, CDMG), the historic high ground-water level beneath the site is at a depth of approximately 10 feet below street level (California Division of Mines and Geology, 1997b).

The natural materials beneath the site consist of porous, water-deposited, recent beach and estuary deposits (sand, silt, and clay) overlying relatively impervious siltstone bedrock of the Tertiary age Capistrano Formation. The area of the site is not used as a source of ground water due to its proximity to the ocean and a tidal wetland. Water was encountered in borings at depths between 8 and 11 feet below ground surface corresponding approximately with mean sea level or slightly above.

6.4 GEOLOGIC STRUCTURE

Geologic structure at the site is defined by the Capistrano Formation siltstone that crops out in the former sea bluff along the northern portion of the site. The siltstone is exposed as a result of regional-scale uplift. The siltstone is also present at shallow depths beneath the flatter, street-level portion of the site. Measurements on bedrock exposures at the site indicate that bedding in the siltstone strikes generally east-west (approximately parallel to the slope face along the northern portion of the site) and dips gently to the northwest and northeast at angles between 3 and 14 degrees. This geometry results in favorable bedding conditions with respect to gross stability of the slope.

Joints were observed locally in limited natural exposures and were observed to be oriented generally perpendicular to bedding (vertical to sub-vertical). Joints were of two general types – a small-scale, discontinuous joint set (length less than about 1 foot) and a larger-scale, more continuous joint set having lengths up to tens of feet. Both joint sets are oriented oblique to bedding and having random strike direction. These features are best exposed in outcrops located east of the site on the west side of Dover Drive. Fracturing of the bedrock was largely absent and voids or openings greater than about 1/16 inch in width along joints were not observed in the bedrock exposures.

6.5 FAULTS

The numerous faults in Southern California include active, potentially active, and inactive faults. The criteria for these major groups are based on criteria developed by the CDMG for the Alquist-Priolo Earthquake Fault Zoning Program (Hart, 1997). By definition, an active fault is one that has had surface displacement within Holocene time (about the last 11,000 years). A potentially active fault is a fault that has demonstrated surface displacement of Quaternary age deposits (last 1.6 million years). Inactive faults have not moved in the last 1.6 million years. A list of nearby active faults (those contained in CGS, 2003) and the distance in miles between the nearest point on the fault, the maximum magnitude, and the slip rate for the fault is given in Table 1. A similar list for potentially active faults is presented in Table 2. The faults in the vicinity of the site are depicted in Figure 4, Regional Faults and Seismicity.

6.5.1 Active Faults

6.5.1.1 <u>Newport-Inglewood Fault Zone</u>

The closest active fault with potential surface rupture to the site is the Newport-Inglewood fault zone located approximately 1.5 miles south southwest of the site. This fault zone is composed of a series of discontinuous northwest-trending en echelon faults extending from Ballona Gap southeastward where it extends offshore of Newport Beach near the Santa Ana River. This zone is reflected onshore at the surface by a line of geomorphically young anticlinal hills and mesas formed by the folding and faulting of a thick sequence of Pleistocene age sediments and Tertiary age sedimentary rocks (Barrows, 1974). Fault-plane solutions for 39 small earthquakes (between 1977 and 1985) show mostly strike-slip faulting with some reverse faulting along the north segment (north of Dominguez Hills) and some normal faulting along the south segment (south of Dominguez Hills to Newport Beach) (Hauksson, 1987). Previous investigations by Law/Crandall (1993) in the Huntington Beach area indicate that the North Branch segment of the Newport-Inglewood fault zone offsets Holocene age alluvial deposits in the vicinity of the Santa Ana River. The epicenter of the 1933 Long Beach earthquake was located on the Newport-Inglewood fault zone just offshore of Newport Beach.

6.5.1.2 Palos Verdes Fault Zone

The offshore portion of the Palos Verdes fault zone is located about 12 miles west of the site. Vertical separations up to about 6,000 feet occur across the fault at depth. Strike-slip movement is indicated by the configuration of the basement surface and lithologic changes in the Tertiary age rocks across the fault. A series of marine terraces in the Palos Verdes Hills were uplifted as a result of vertical movement along the fault during the Pleistocene epoch. Geophysical data indicate offset at the base of offshore Holocene age deposits (Clarke et al., 1985). However, no historic large magnitude earthquakes are associated with this fault.

6.5.1.3 Whittier Fault

The active Whittier fault is located approximately 21.5 miles northeast of the site. The Whittier fault is a northwest-trending fault that extends along the south flank of the Puente Hills from the Santa Ana River on the southeast to the Merced Hills, Whittier Narrows, on the northwest. According to Yeats, at Whittier Narrows the Wittier Fault turns more northwesterly, becoming the East Montebello Fault. The main fault trace is a high-angle reverse fault, with the north side uplifted over the south side at an angle of approximately 70 degrees, although late Quaternary movement has been nearly pure strike slip. Total right separation may be around 8 to 9 kilometers (Yeats, 2004). In the Brea-Olinda Oil Field, the Whittier fault displaces Pleistocene age alluvium, and Carbon Canyon Creek is offset in a right lateral sense by the Whittier fault.

6.5.1.4 San Andreas Fault Zone

The active San Andreas fault zone is about 52 miles northeast of the site. This fault zone, California's most prominent geological feature, trends generally northwest for almost the entire length of the state. The site is closest to the Mojave and San Bernadino segments. According to the California Geologic Survey (2003), the Mojave segment of the fault has a slip rate of 30 mm/yr. The Magnitude 8 1857 Fort Tejon earthquake was the most recent great earthquake along the San Andreas fault zone in Southern California.

6.5.2 Blind Thrust Fault Zones

6.5.2.1 San Joaquin Hills Thrust

Several recent studies by Grant et al. (1999, 2002) suggest that an active blind thrust fault system underlies the San Joaquin Hills and portions of the Newport Mesa. This postulated blind thrust fault is believed to be a faulted anticlinal fold, subparallel to the Newport-Inglewood fault zone (NIFZ) but considered a distinctly separate seismic source (Grant et al., 2002). The recency of movement and Holocene slip rate of this fault are not known. It has been estimated to be capable of a Magnitude 6.8 to 7.3 earthquake (Grant et al., 2002). This estimation is based primarily on a series of uplifted marine terraces and age-dating of marsh deposits that are elevated above the current coastline. The vertical surface projection of the San Joaquin Hills Thrust underlies the site. This thrust fault is not exposed at the surface and does not present a potential surface fault rupture hazard. However, the San Joaquin Hills Thrust is presumed to be an active feature that can generate future earthquakes. The California Geological Survey (2003) has estimated an average slip rate of 0.5 mm/yr and a maximum magnitude of 6.6 for the San Joaquin Hills Thrust.

6.5.2.2 Puente Hills Blind Thrust

The Puente Hills Blind Thrust fault (PHBT) is defined based on seismic reflection profiles, petroleum well data, and precisely located seismicity (Shaw and others, 2002). This blind thrust fault system extends eastward from downtown Los Angeles to Brea (in northern Orange County) and overlies the Elysian Park Thrust. The PHBT includes three north-dipping segments, named from east to west as the Coyote Hills segment, the Santa Fe Springs segment, and the Los Angeles segment. These segments are overlain by folds expressed at the surface as the Coyote Hills, Santa Fe Springs Anticline, and the Montebello Hills. The Santa Fe Springs segment of the PHBT is believed to be the causative fault of the October 1, 1987 Whittier Narrows Earthquake (Shaw and others, 2002). Postulated earthquake scenarios for the PHBT include single segment fault ruptures capable of producing an earthquake of magnitude 6.5 to 6.6 (Mw) and a multiple segment fault rupture capable of producing an earthquake of magnitude 7.1 (Mw). The vertical surface projection of the PHBT is approximately 18.5 miles north-northeast of the site at the closest point. The PHBT is not exposed at the ground surface and does not present a potential for surface fault rupture. However, based on deformation of late Quaternary age sediments above this fault system and the occurrence of the Whittier Narrows earthquake, the PHBT is considered an active fault capable of generating future earthquakes beneath the Los Angeles Basin. An average slip rate of 0.7 mm/yr and a maximum magnitude of 7.1 are estimated by the California Geological Survey (2003) for the Puente Hills Blind Thrust.

6.5.3 Potentially Active Faults

6.5.3.1 Los Alamitos Fault

The potentially active Los Alamitos fault is located approximately 15 miles to the northeast. This fault trends northwest-southeast from the northern boundary of the City of Lakewood, southeastward to the Los Alamitos Armed Forces Reserve Center. The fault, considered a southeasterly extension of the Paramount Syncline, appears to be a vertical fault with the early Pleistocene age materials on the west side of the fault displaced up relative to the east side. There is no evidence that this fault has offset Holocene age alluvial deposits (Ziony and Jones, 1989).

6.5.3.2 El Modeno Fault

The potentially active El Modeno fault is located about 15 miles northeast of the site. The fault is a steeply-dipping normal fault about 14 kilometers long and has about 610 meters of uplift on its eastern side. Movement on the fault has been inferred during Holocene time, suggesting the fault is active (Ryan et al., 1982). However, the State of California considers this fault to be potentially active (Jennings, 1994).

6.5.3.3 Norwalk Fault

The potentially active Norwalk fault is about 18 miles north-northeast of the site. The fault is a ground water barrier along the southern edge of the Coyote Hills, trending southeasterly toward the

Santa Ana Mountains. The fault is thought to be a north-dipping reverse oblique fault along which the Coyote Hills have been uplifted. This fault offsets lower Pleistocene age and older deposits near the mouth of the Santa Ana Canyon. However, there is no evidence that this fault has offset Holocene age alluvial deposits (Ziony and Jones, 1989). Additionally, the State of California considers this fault to be potentially active (Jennings, 1994).

6.6 GEOLOGIC-SEISMIC HAZARDS

6.6.1 General

Our evaluation of the geologic-seismic hazards included an assessment and/or identification of geologic-seismic hazards that could impact the site. We reviewed the State of California Official Alquist-Priolo Earthquake Fault Zone maps and Official Seismic Hazard Zone maps, the City of Newport Beach Seismic Safety Elements and other geologic references pertinent to the site.

6.6.2 Fault Rupture

The site is not within an Alquist-Priolo Earthquake Fault Zone for surface fault rupture hazards. The nearest active fault to the site with the potential for surface fault rupture is the offshore segment of the Newport-Inglewood fault zone located approximately 1.5 miles to the southwest. The closest Alquist-Priolo Earthquake Fault zone, established for an on-shore portion of the Newport-Inglewood fault, is located approximately 4.8 miles to the northwest.

6.6.3 Historic Seismicity and Ground Shaking

The seismicity of the region surrounding the site was determined from research of an electronic database of seismic data (Southern California Seismographic Network, 2010). This database includes earthquake data compiled by the California Institute of Technology from 1932 through April 2010 and data for 1812 to 1931 compiled by Richter and the U.S. National Oceanic Atmospheric Administration (NOAA). The search for earthquakes that occurred within 100 kilometers of the site indicates that 390 earthquakes of Richter magnitude 4.0 and greater occurred from 1932 through April 2010; 4 earthquakes of magnitude 6.0 or greater occurred between 1906 and 1931; and 1 earthquake of magnitude 7.0 or greater occurred between 1812 and 1905.

A number of earthquakes of moderate to major magnitude have occurred in the Southern California area within the last approximately 77 years. A partial list of these earthquakes is included in the following table. Locations of epicenters of moderate to major historic earthquakes in the region are shown on Figure 4.

List of Historic Earthquakes within 100 Kilometers of the Site

Earthquake (Oldest to Youngest)	Date of Earthquake	Magnitude	Distance to Epicenter (Kilometers)	Direction to Epicenter
Long Beach	March 10, 1933	6.4	6	W
San Fernando	February 9, 1971	6.6	99	NNW
Whittier Narrows	October 1, 1987	5.9	64	N
Sierra Madre	June 28, 1991	5.8	71	N
Northridge	January 17, 1994	6.7	87	NW

Due to the nearby active Newport-Inglewood fault zone and San Joaquin Hills blind thrust, and seismically active nature of the Southern California area, the site could be subjected to strong ground shaking in the event of an earthquake. However, this hazard is common in Southern California and the effects of ground shaking can be mitigated by proper engineering design and construction in conformance with current building codes and engineering practices.

6.6.4 Slope Stability

The existing slope along the northern site boundary is approximately 45 to 50 feet in height and is a former sea bluff formed in Capistrano Formation bedrock (lower portion of slope) and terrace deposits (upper portion of slope). The upper portion of the slope is located within the boundaries of the properties bordering the site to the north. This slope has a typical gradient of 2:1 (horizontal to vertical) with local areas of 1½:1 (horizontal to vertical) gradient. A heavy vegetative cover is present over much of the slope area.

The site is located within an area identified as having a potential for slope instability by the Newport Beach General Plan (1975). Additionally, the slope portion of the site is located within an area identified as having a potential for earthquake-induced landslides (Division of Mines and Geology, 2006). However, the stability of the existing and proposed slopes is dependent upon a variety of factors that include height, gradient (steepness), geologic materials (composition and strength characteristics), geologic structure and orientation of the bedrock units, and moisture content. The type of vegetation and degree of vegetation coverage on the slopes also influences slope stability. Based on our geologic mapping at the site, the orientation of the geologic structure in the bedrock materials is favorable with respect to overall slope stability (dipping into slope). Additionally, the massive, dense nature of the Pleistocene terrace deposits that overlie the bedrock exposed in the slope is favorable for gross slope stability. There are no known landslides near the site, nor is the site in the path of any known or potential landslides. Based on our evaluation, including geologic mapping of the site, the site is considered grossly stable from a geologic perspective.

Based on observations made during our field investigation, the terrace deposits are moderately erodable and susceptible to surficial instabilities. We observed several localized areas where gullies are formed in the siltstone materials from water flow originating on the upslope properties. Also, accumulation of debris at the base of an erosion gully on the slope near the northern portion of 200-300 West Coast Highway is evidence that the offsite slope has the potential for erosion and small debris flows. Therefore, the portions of the slope which are not improved by the proposed development may be surficially unstable. The proposed wall at the property line should be designed to retain surficial soils that could mobilize from the upslope area. Shoring of the temporary construction cuts is recommended and should be designed in accordance with the recommendations section of this report.

6.6.5 Flooding

The street level portion of the site is located in a type “B” flood zone defined as an area of moderate or minimal hazard from the principal source of flood in the area. Sites within this zone could be subject to shallow flooding (flood depths less than 1 foot) during severe, concentrated rainfall coupled with inadequate local drainage.

6.6.6 Inundation, Tsunamis, and Seiches

According to the City of Newport Beach General Plan (1975) and County of Orange Safety Element (1995), the site is not located downslope of any large bodies of water that could adversely affect the site in the event of earthquake-induced dam failures or seiches (wave oscillations in an enclosed or semi-enclosed body of water).

The site is approximately 0.9 to 1.0 mile from the Pacific Ocean at an elevation of about 10.5 to 60 feet above sea level. The site is not in a Tsunami Inundation Area (California Geological Survey, 2009). Recent discussions in the scientific community, however, suggest that the tsunami hazard may be greater than previously anticipated. Government agencies are currently upgrading the region's tsunami preparedness, warning, and evacuation systems.

6.6.7 Subsidence

The site is not within an area of known subsidence associated with fluid withdrawal (ground water or petroleum), peat oxidation, or hydrocompaction.

6.6.8 Oil Wells, Methane and Hydrogen Sulfide Gas

The site is located immediately southeast of the active Newport West oil field and the abandoned Newport Beach oil field. The oil and gas reservoirs are in the Monterey Formation. The bedrock at the site is probably at the base of the Capistrano formation near its contact with the underlying Monterey Formation and the environment of deposition was most likely similar. No oil or gas was encountered in the borings at the site and there are no known oil wells at the site. There was a strong odor of hydrogen sulfide from the samples in the bedrock and hydrogen sulfide should be anticipated in excavations at the site.

6.6.9 Liquefaction

Liquefaction potential is greatest where the ground-water level is shallow, and submerged loose, fine sands occur within a depth of about 50 feet or less. Liquefaction potential decreases as grain size and clay and gravel content increase. As ground acceleration and shaking duration increase during an earthquake, liquefaction potential increases.

The site is on the margin of a Liquefaction Hazard Zone as designated by the State of California (1998) and may be partially or wholly within the zone (an exact determination of the limits of the mapped zone was difficult for this area).

The liquefaction potential of the soils underlying the site during the Design Basis Earthquake (DBE) was evaluated using the liquefaction peak ground acceleration (PGA), the results of the SPTs performed in our borings, and the historic-high ground-water level of about 10 feet below the existing grade. The results of our analysis indicate that localized onsite recent marine deposits below the water level are anticipated to be susceptible to liquefaction. Because of the relatively shallow depth to the top of the Capistrano formation, liquefaction-induced settlement of about ½ inch is expected to occur. It is anticipated that the Capistrano formation material will not liquefy. Because of the liquefiable deposits are isolated, the potential for lateral spreading is considered to be low.

6.7 ESTIMATED PEAK GROUND ACCELERATION

Site-specific ground motions were postulated corresponding to the Design Basis Earthquake (DBE), having a 10% probability of exceedence during a 50-year time period and the Upper Bound Earthquake (UBE), having a 10% probability of exceedence during a 100-year time period.

The site-specific peak ground accelerations for the DBE and UBE were estimated by a Probabilistic Seismic Hazard Analysis (PSHA) using the computer program EZFRISK, Version 6.22. The peak ground accelerations were developed using the average of the values computed from three ground motion attenuation relations: “rock” type site classifications discussed in Abrahamson and Silva (1997) and Sadigh et al. (1997) and for a material with an estimated shear wave velocity of 360 meters per second in Boore et al. (1997).

Dispersion in the ground motion attenuation relationships was considered by inclusion of the standard deviation of the ground motion data in the attenuation relationships used in the PSHA. For the fault rupture length versus magnitude relationship, we have used the relationship of Wells and Coppersmith (1994) for all the faults in the model. The estimated peak ground acceleration for the DBE and the UBE are 0.42g and 0.61g, respectively.

6.8 CONCLUSIONS

The proposed development of the site is feasible from a geotechnical viewpoint provided the recommendations of this report are implemented. The existing slope along the northern property boundary is considered grossly stable, and the proposed grading will not adversely impact the stability of the site or adjacent sites provided temporary excavations and temporary and permanent walls are engineered in accordance with the recommendations of this report

It is important with regard to the slope stability that the upslope properties control drainage on the slope, above the proposed retaining wall. This may require coordination with adjacent property owners and an assessment of the condition of existing slope drain systems. A terrace drain or other drainage control device should be located at the top of the retaining wall to collect runoff from the off-site properties. Due to the moderate potential for localized debris flows during periods of intense rainfall we recommend provision of freeboard at the top of the proposed wall. In addition, we recommend that our geologist observe the excavations at the site to map the geologic structure and to verify the geologic conditions exposed in the excavations are the same as those anticipated.

7.0 RECOMMENDATIONS

The existing fill soils are not suitable for support of the proposed Mariner's Pointe retail and parking structure on spread footings. The proposed structure can be supported on shallow spread footings underlain by a minimum of 5 feet of properly compacted fill soils. The footings should extend at least 2 feet below the lowest adjacent grade. Alternatively, the footings could be deepened to extend into the Capistrano formation materials. The on-site sandy soils are suitable for use as compacted fill, however, some of the on-site clay and silt soils may be very wet and soft and difficult to compact and as such, not suitable for use in the compacted fill. The building floor slab and site paving can be supported on grade if the grading recommendations are followed.

As an alternative to excavation and recompaction beneath the building and parking structure footings, consideration could be given to support of these structures on shallow spread footings established on Geopiers or rammed aggregate piers. A Geopier representative (or other soil improvement contractor) should be contacted for design and construction consultation.

The proposed retaining wall may be supported on shallow spread foundations. Because of the existing slope and the site topography, it is likely that the earth materials beneath the retaining wall will vary along the length of the wall. For the eastern portion of the wall where the retained height will be small, it is anticipated that the recent marine deposits (soil) will be encountered within the footing excavation, and there may be a transition between the recent marine deposits and the Capistrano formation materials that are found in the slope. For the western portion of the wall, the earth materials encountered at the foundation level may be entirely within the Capistrano formation.

7.1 FOUNDATIONS

In this section, data are given for the following foundation design considerations:

- Bearing value for both major structures and structurally separate minor structures.
- Estimated settlement of the structure.
- Lateral resistance.

7.1.1 Spread Footings

Retail and Parking Structures

The retail and parking structures may be supported on spread footings established at a depth of at least 2 feet below the lowest adjacent grade and underlain by a minimum of 5 feet of properly compacted fill soils. The footings may be designed to impose a maximum net dead-plus-live load pressure of 2,500 pounds per square foot. As an alternative, the proposed structures may be supported on deepened foundations in the undisturbed Capistrano formation materials; the footings may be designed to impose a maximum net dead-plus-live load pressure of 5,000 pounds per square foot. The excavations should be deepened as necessary to extend into satisfactory soils.

Retaining Wall

In the eastern portion, where the recent marine deposits are more likely to be encountered, the proposed retaining wall may be supported on spread footings established at a depth of at least 2 feet below the lowest adjacent grade. The footing should be underlain by a minimum of 2 feet of properly compacted fill. The footings may be designed to impose a maximum net dead-plus-live load pressure of 2,500 pounds per square foot.

In the western portion, where the Capistrano formation deposits are more likely to be encountered, the proposed retaining wall may be supported on spread footings established at a depth of 2 feet below the lowest adjacent grade in the undisturbed Capistrano formation materials; the footings may be designed to impose a maximum net dead-plus-live load pressure of 5,000 pounds per square foot. The excavations should be deepened as necessary to extend into satisfactory soils.

The retaining wall footings should be established in either the properly compacted fill or the Capistrano formation materials; the footings should not straddle a transition between properly compacted fill and the Capistrano formation. To determine the appropriate foundation conditions for the proposed retaining wall, shallow pits may be excavated to determine the presence or absence of the recent marine deposits at various locations along the proposed wall.

A one-third increase can be used for wind or seismic loads. The recommended bearing value is a net value, and the weight of concrete in the footings can be taken as 50 pounds per cubic foot; the weight of soil backfill can be neglected when determining the downward loads.

7.1.2 Settlement

We estimate the settlement of the structures, supported on spread footings in the manner recommended, will be about 1 inch. Differential settlement between adjacent columns is expected to be about ½ inch or less.

7.1.3 Lateral Resistance

Lateral loads can be resisted by soil friction and by the passive resistance of the soils. A coefficient of friction of 0.4 can be used between the structure footings and the floor slab and the supporting soils. The passive resistance of natural soils or properly compacted fill soils can be assumed to be equal to the pressure developed by a fluid with a density of 300 pounds per cubic foot. A one-third increase in the passive value can be used for wind or seismic loads. The frictional resistance and the passive resistance of the soils can be combined without reduction in determining the total lateral resistance.

7.2 SITE COEFFICIENT AND SEISMIC ZONATION

We determined the seismic site coefficients in accordance with the ASCE 7-05 Standard (ASCE, 2005) using the United States Geological Survey (USGS, 2007a) Earthquake Motion Parameters, Version 5.0.9, program. The site location used was Latitude 33.6164° and Longitude -117.9078° with a Site Class "D." The seismic site coefficients under the new code are presented below:

Site Coefficient	Value
S_S (0.2 second period, Site Class B), in g	1.855
S_1 (1.0 second period, Site Class B), in g	0.696
F_a	1.0
F_v	1.5
$S_{MS} = F_aS_S$ (0.2 second period, Site Class D), in g	1.855
$S_{M1} = F_vS_1$ (1.0 second period, Site Class D), in g	1.044
$S_{DS} = 2/3 \text{ x } S_{MS}$ (0.2 second period, Site Class C), in g	1.236
$S_{D1} = 2/3 \text{ x } S_{M1}$ (1.0 second period, Site Class C), in g	0.696

By LT 7/12/2010 Chkd ET 7/14/2010

7.3 FLOOR SLAB SUPPORT

If the subgrade is prepared as recommended in the following section on grading, the building floor slab can be supported on grade.

Construction activities and exposure to the environment can cause deterioration of the prepared subgrade. Therefore, we recommend our that our field representative observe the condition of the final subgrade soils immediately prior to slab-on-grade construction, and, if necessary, perform further density and moisture content tests to determine the suitability of the final prepared subgrade.

If vinyl or other moisture-sensitive floor covering is planned, we recommend that the floor slab in those areas be underlain by a capillary break consisting of a vapor-retarding membrane over a 4-inch-thick layer of gravel. A 2-inch-thick layer of sand should be placed between the gravel and the membrane to decrease the possibility of damage to the membrane. We suggest the following gradation for the gravel:

Sieve Size	Percent Passing
¾”	90 - 100
No. 4	0 - 10
No. 100	0 - 3

A low-slump concrete should be used to reduce possible curling of the slab. A 2-inch-thick layer of coarse sand can be placed over the vapor retarding membrane to reduce slab curling. If this sand bedding is used, care should be taken during the placement of the concrete to prevent displacement of the sand. The concrete slab should be allowed to cure properly before placing vinyl or other moisture-sensitive floor covering.

7.4 RETAINING WALLS

In this section, data are given for the following retaining wall design considerations:

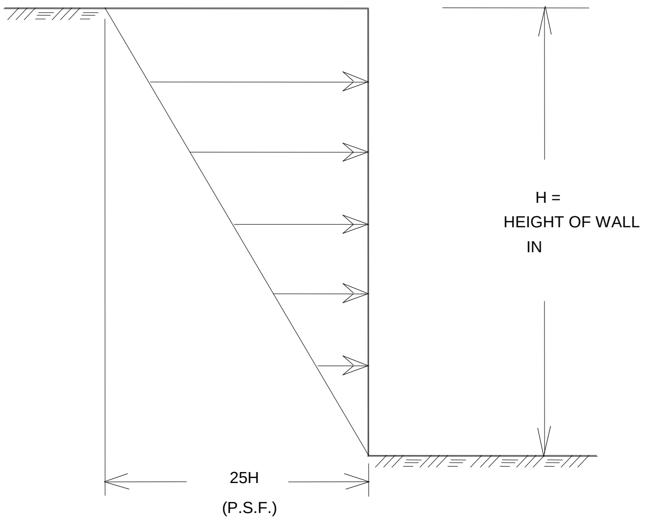
- Lateral earth pressure (for design of cantilevered retaining walls below grade).
- Seismic lateral earth pressure (for design of retaining walls over 6 feet high).
- Drainage.

7.4.1 Lateral Earth Pressure

For design of cantilevered retaining walls, where the surface of the backfill is level, it can be assumed that drained soils will exert a lateral pressure equal to that developed by a fluid with a density of 30 pounds per cubic foot. In addition to the recommended earth pressure, the walls should be designed to resist any applicable surcharges due to storage or traffic loads. For retaining walls where the backfill has a 1½:1 (horizontal to vertical) inclination, it can be assumed that drained soils will exert a lateral pressure equal to that developed by a fluid with a density of 50 pounds per cubic foot.

7.4.2 Seismic lateral earth pressure

In addition to the above-mentioned lateral earth pressures, retaining walls more than 12 feet high should be designed to support a seismic active pressure. The recommended seismic active pressure distribution on the wall is illustrated in the following diagram with the maximum pressure equal to 25H pounds per square foot, where H is the wall height in feet.



7.4.3 Drainage

Retaining walls should be designed to resist hydrostatic pressures or be provided with a drain pipe or weepholes. The drain could consist of a 4-inch-diameter perforated pipe placed with perforations down at the base of the wall. The pipe should be sloped at least 2 inches in 100 feet and surrounded by filter gravel. The filter gravel should meet the requirements of Class 2 Permeable Material as defined in the current State of California, Department of Transportation, Standard Specifications. If Class 2 Permeable Material is not available, ¾-inch crushed rock or gravel separated from the on-site soils by an appropriate filter fabric can be used. The crushed rock or gravel should have less than 5% passing a No. 200 sieve.

7.4.4 Soil Nail Wall

The proposed retaining wall may be supported by soil nails. The natural materials are suitable for soil nail wall construction provided the recommendations provided in this report are followed. Guidelines presented in the "*Manual for Design and Construction Monitoring of Soil Nail Walls,*" Publication FHWA-SA-96-069 from the Federal Highway Administration, should be followed. In addition to these guidelines, recommendations for soil nail testing, installation procedures and monitoring for the soil nail wall are presented in this section.

Based on the type of materials encountered in our prior test pits and current borings as well as the laboratory testing, a unit ultimate bond stress of 7.5 pound per square inch, an ultimate internal friction angle of 25 degrees, an ultimate cohesion of 575 pounds per square foot and a unit weight of 105 pounds per cubic foot are recommended for analysis. Using these soil strengths, the soil nailing stability calculations should indicate a factor of safety of at least 1.5 under static loads and a factor of safety of at least 1.1 for seismic loads. A seismic coefficient of 0.21 is recommended.

7.4.4.1 Drainage

Ground water should be controlled during and after the soil nail wall installation, if necessary. A surface interceptor ditch is recommended along the top of the excavation for controlling surface flows. The soil nail wall should be provided with face drains or shallow drains. The face drains could consist of geotextile drain strips (about 16 inches wide) placed vertically down the excavation face, spaced at the same distance as the nail horizontal spacing, and discharging either into a base drain or through weep holes at the bottom of the wall. Shallow drains are typically 12- to 16-inch long, 2- to 4-inch diameter PVC pipes discharging through the face.

7.4.4.2 Soil Nail Testing

The soil nails are not normally preloaded after installation. Furthermore, the lack of soldier pile or other reaction elements make proof testing of all of the soil nails impractical. However, some soil nails should be tested. The shotcrete facing will need to be reinforced in the vicinity of each test nail to provide a satisfactory reaction. The nails in the lower rows will develop greater frictional resistance than the nails in the upper rows, and testing of the lower rows will be just as important as the upper rows.

Pre-production nail pullout test should be performed on at least two nails at different locations along the proposed wall to 200% of the assumed adhesion times the total nail surface area to verify the assumed adhesion of the nail. In addition, about 10 percent of the production nails should be randomly selected by the geotechnical engineer of record and tested to 150% of the assumed adhesion times the total nail surface area. Since the portion of the soil nail forward of the critical failure surface will also be grouted, the test should be adjusted to account for the fully grouted length. The total deflection during the 150% test should not exceed 2 inches during the entire test. The load should be applied in at least five increments and the load should be maintained at 150% of the design load for at least 30 minutes; the deflection of the soil nail after the 150% loading is applied should not exceed 0.1 inch during the 30 minute test period. The measured deflections should not include the elastic elongation of the steel bars under axial loading. We also recommend that a small nominal load be applied to each test nail prior to testing to remove any slack in the nails and provide firm contact between the hardware components.

The total deflection during the entire 200% test should not exceed two inches. The rate of creep under the 200% test should not exceed 0.2 inches during a 24-hour period in which the 200% load is maintained. The installation and testing of the soil nails should be observed by the geotechnical engineer of record.

The soil nail excavations should be grouted as soon as possible; the holes should not be left open overnight. To assure full contact and mobilization of the soil strength, we recommend that a small nominal load be applied to each test nail prior to testing to remove any slack in the nails and provide firm contact between the hardware components. We also recommend that all nails should be locked off at a nominal load of about five kips.

The shotcrete facing on the soil nailed wall should be applied as soon as possible after excavation and should be applied not later than 24 hours after the soil nails are installed; preferably the shotcrete should be applied on the same day. This recommendation should be reviewed in the field and modifications made where necessary.

Special precautions should be taken to provide corrosion protection to the nail tendon and head (refer to the FHWA-SA-96-069 Manual).

Minimizing the deflection of the wall will be important to reduce the effects of the deflection on the adjacent properties and utilities. Accordingly, we recommend that survey monuments be established at approximately 20-foot intervals along the top of the soil nail wall to determine both lateral and vertical movement. The settlement monuments should be surveyed at least at weekly intervals during construction. The initial readings should be taken prior to the beginning of the excavation to establish baseline readings. The survey readings should be taken by a licensed land surveyor.

The drawings should include provisions for providing supplemental wall support in the event the lateral deflection or settlement exceeds 2 inches.

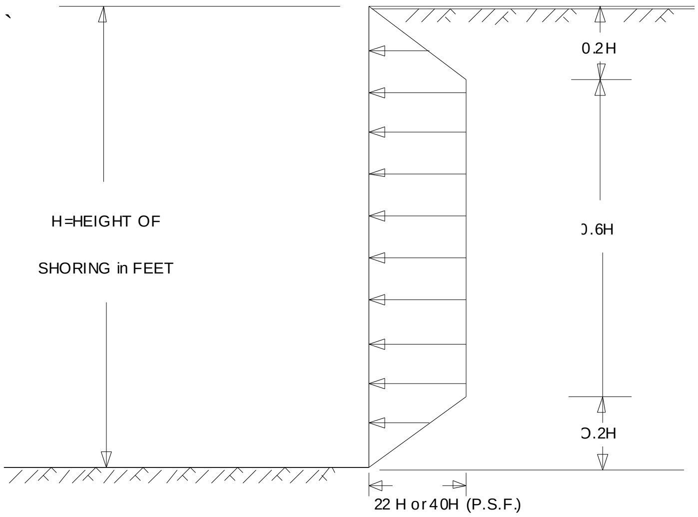
7.5 SHORING

To facilitate construction of the proposed retaining wall, excavation into the existing slope will be required. Shoring may be used to support the existing slope which may have an inclination of up to 1½:1 (horizontal to vertical). The shoring may consist of soldier piles and may be either cantilevered or tied-back with earth anchors.

7.5.1 Lateral Pressures

For design of cantilevered shoring, where the surface of the backfill is level, it can be assumed that drained soils will exert a lateral pressure equal to that developed by a fluid with a density of 30 pounds per cubic foot. In addition to the recommended earth pressure, the walls should be designed to resist any applicable surcharges due to storage or traffic loads. For retaining walls where the backfill has a 1½:1 (horizontal to vertical) inclination, it can be assumed that drained soils will exert a lateral pressure equal to that developed by a fluid with a density of 50 pounds per cubic foot.

For the design of braced or tied-back shoring, we recommend using a trapezoidal pressure distribution. For level grade behind the shoring (level perpendicular to the excavation), the following diagram may be used where the maximum pressure is equal to 22H pounds per square foot (psf), where H is the retained height in feet. Where the surface of the restrained earth slopes 1½:1 (horizontal to vertical), the maximum pressure would be equal to 40H.



7.5.2 Tie-Back Anchor Design

Tie-back friction anchors may be used to resist lateral loads. Based on the available information, we have evaluated braced shoring for a maximum retained height of 14 feet. For design purposes, it may be assumed that the active wedge adjacent to the shoring is defined by a plane drawn at 35 degrees from the vertical through the bottom of the excavation. The anchors should extend at least 15 feet beyond the potential active wedge and to a greater length if necessary to develop the desired capacities.

The capacities of the anchors should be determined by testing of the initial anchors as outlined below. For design purposes, it may be estimated that drilled friction anchors will develop an average friction value of 600 and 400 pounds per square foot for the siltstone bedrock and marine deposits, respectively. For post-grouted anchors, it may be estimated that the anchors could develop an average friction of up to 1,800 and 1,200 pounds per square foot for bedrock and marine deposits, respectively. Only the frictional resistance developed beyond the active wedge would be effective in resisting lateral loads. If the anchors are spaced at least 6 feet on centers, then no reduction in capacity is necessary.

7.5.3 Tie-Back Anchor Installation

The anchors may be installed at angles of 15 to 40 degrees below the horizontal. Ground water seepage may occur within the drilled shafts and may result in slickened sides of the anchor shafts. Therefore, we recommend that the drilled shafts be “rifled” to ensure positive contact.

The anchors should be filled with concrete placed by pumping from the tip out, and the concrete should extend from the tip of the anchor to the active wedge.

We suggest that the portion of the anchor shaft within the active wedge be backfilled with sand with a small amount of cement to allow the sand to be placed by pumping. The sand-cement mixture should fill the portion of the tie-back anchor tightly and should be flush with the face of the shoring when finished.

7.5.4 Tie-Back Anchor Testing

The installation of the anchors and the testing of the completed anchors should be observed by a representative of our firm. Our representative should select at least two of the initial anchors for 24-hour 200% tests and four additional anchors for “quick” 200% tests to verify in the field the friction value assumed in this report. We recommend that the 200% tests be performed at representative locations around the site and not concentrated in a single area.

The total deflection during 24-hour 200% tests should not exceed 12 inches during loading; the anchor deflection should not exceed ¾ inch during the 24-hour period, measured after the 200% test load is applied. If the anchor movement after the 200% load has been applied for 12 hours is less than ½ inch, and the movement over the previous 4 hours has been less than 0.1 inch, the test may be terminated.

For the quick 200% tests, the test load should be maintained for 30 minutes. The total deflection of the anchor during the 200% quick test should not exceed 12 inches; the deflection after the 200% test load has been applied should not exceed ¼ inch during the 30-minute period.

All of the production anchors should be pre-tested to at least 150% of the design load; the total deflection during the test should not exceed 12 inches. The rate of creep under the 150% test should not exceed 0.1 inch over a 15-minute period in order for the anchor to be approved for the design loading.

After a satisfactory test, each production anchor should be locked off at the design load. The locked-off load should be verified by rechecking the load on the anchor. If the locked-off load varies by more than 10% from the design load, the load should be reset until the anchor is locked off within 10% of the design load.

The installation of the anchors and the testing of the completed anchors should be observed by our firm.

7.5.5 Deflection

It is difficult to accurately predict the amount of deflection of a shored embankment. It should be realized, however, that some deflection would occur. We estimate this deflection could be about 1 inch at the top of the shored embankment. If greater deflection occurs during construction, additional bracing may be necessary.

7.5.6 Monitoring

Some means of monitoring the performance of the shoring system is recommended. The monitoring should consist of periodic surveying of the lateral and vertical locations of the tops of all the soldier piles. Initial survey should be taken prior to the first level of excavation so that an accurate baseline may be established.

We will be pleased to discuss monitoring considerations further with the design consultants and the contractor when the design of the shoring system has been finalized.

7.5.7 Soldier Piles

For the design of soldier piles spaced at least 2 diameters on-center, the allowable lateral bearing value (passive pressure) of the soils and Capistrano formation bedrock below the bottom of the excavation may be assumed to be 600 pounds per square foot, per foot of pile embedment below the excavated surface, up to a maximum value of 6,000 pounds per square foot. To develop the full lateral values, firm contact between the soldier piles and the undisturbed soil bedrock must be assured. A lean mix concrete may be used for the soldier pile, but should have sufficient strength below the bottom of the excavation to adequately transfer the imposed loads to the surrounding soils.

The frictional resistance between the soldier piles and the retained earth may be used in resisting the downward component of the anchor load. The coefficient of friction between the soldier piles and the retained earth may be taken as 0.4. (This value is based on the assumption that uniform full bearing will be developed between the steel soldier beam and the lean-mix concrete and between the lean-mix concrete and the retained earth.) In addition, the portion of the soldier piles below the excavated level may be used to resist downward loads. The downward capacity of the concrete soldier piles below the excavated level may be determined using an average friction value of 400 pounds per square foot.

7.5.8 Lagging

Continuous lagging will be required between the soldier piles in the fill and overburden soils and in areas of water seepage. If the clear spacing between soldier piles does not exceed five feet, lagging between soldier piles could be omitted in the siltstone and sandstone bedrock if geologic conditions are favorable. The excavation should be observed during construction to confirm that lagging may be omitted.

The soldier piles and anchors should be designed for the full anticipated lateral pressure. However, the pressure on the lagging will be less due to the arching effect of the retained soils. We recommend that the lagging be designed for the recommended earth pressure, but limited to a maximum value of 400 pounds per square foot.

7.5.9 Retaining Wall Supported on Piles

As an alternative, the proposed retaining wall may be supported on piles. The shoring piles may be used to support the proposed retaining wall. The recommendations and design values given for shoring may be used for the proposed retaining wall where appropriate, the seismic earth pressures should also be considered. Instead of using lean-mix concrete below the excavated level, the soldier piles should be filled with structural concrete. In addition, the structural elements should be designed with corrosion protection.

7.6 GRADING

The existing fill soils are not uniformly well compacted and are not considered suitable for support of the proposed structure or floor slabs on grade. The existing fill soils should be excavated and replaced as properly compacted fill. Any required fill should be uniformly well compacted and observed and tested during placement. The on-site soils can be used in any required fill.

The upper natural soils (recent marine deposits) are soft and compressible and are not considered suitable for support of the proposed structures. The upper recent marine deposit should be excavated and replaced as properly compacted fill. For the proposed retaining wall, the upper marine deposit should be excavated to allow for a minimum of 2 feet of properly compacted fill beneath the bottom of the footing. For the proposed structure, the upper marine deposits should be excavated to allow for a minimum of 5 feet of properly compacted fill beneath the bottom of the footings. For footing, the excavation should extend horizontally a distance at least to the depth of compacted fill beneath the footing where practical. For floor slab on grade and paving support, we recommend that the upper marine deposits be excavated to provide a minimum of 2 feet of properly compacted fill beneath the finished subgrade.

7.6.1 Site Preparation and Excavations

After the site is cleared and any existing fill soils are excavated as recommended, the exposed natural soils should be carefully observed for the removal of all unsuitable deposits. Next, the exposed soils should be rolled with heavy compaction equipment. At least the upper 6 inches of the exposed soils should be compacted to at least 90% of the maximum dry density obtainable by the ASTM Designation D1557 method of compaction. For the deeper excavations, the exposed soils may be wet and soft, thus, it may be difficult to place compacted fill on the exposed soils. It may be necessary to place crushed rock to provide a stable and unyielding surface to place compacted fill; alternatively, a geogrid may be needed with crushed rock to stabilize the soils.

Where excavations are deeper than about 4 feet, the sides of the excavations should be sloped back or shored for safety; however, based on the project plans, space will not be available for temporary slopes. We can provide recommendations for temporary slopes if needed.

Excavations should be observed by personnel of our firm so that any necessary modifications based on variations in the soil conditions can be made. All applicable safety requirements and regulations, including OSHA regulations, should be met.

7.6.2 Compaction

Any required fill should be derived from the excavated sandy natural soils and placed in loose lifts not more than 8-inches-thick and compacted. The on-site clay and silt soils are not considered suitable for use in the compacted fills. The fill should be compacted to at least 90% of the maximum density obtainable by the ASTM Designation D1557 method of compaction. The moisture content of the on-site soils at the time of compaction should vary no more than 2% below or above optimum moisture content.

7.6.3 Backfill

All required backfill derived from the excavated natural soils should be mechanically compacted in layers; flooding should not be permitted. Proper compaction of backfill will be necessary to reduce settlement of the backfill and to reduce settlement of overlying slabs and paving. Backfill should be compacted to at least 90% of the maximum dry density obtainable by the ASTM Designation D1557 method of compaction. The exterior grades should be sloped to drain away from the foundations to prevent ponding of water.

Some settlement of the backfill should be expected, and any utilities supported therein should be designed to accept differential settlement, particularly at the points of entry to the building. Also, provisions should be made for some settlement of concrete walks supported on backfill.

7.6.4 Material for Fill

The on-site sandy soils, less any debris or organic matter, can be used in required fills. Onsite silt and clay soils should not be utilized. Cobbles larger than 4 inches in diameter should not be used in the fill. Any required import material should consist of relatively non-expansive soils with an expansion index of less than 35. The imported materials should contain sufficient fines (binder material) so as to be relatively impermeable and result in a stable subgrade when compacted. All proposed import materials should be approved by our personnel prior to being placed at the site.

7.7 GEOTECHNICAL OBSERVATION

The reworking of the upper soils and the compaction of all required fill should be observed and tested during placement by a representative of our firm. This representative should perform at least the following duties:

- Observe the clearing and grubbing operations for proper removal of all unsuitable materials.
- Observe the exposed subgrade in areas to receive fill and in areas where excavation has resulted in the desired finished subgrade. The representative should also observe proofrolling and delineation of areas requiring overexcavation.
- Evaluate the suitability of on-site and import soils for fill placement; collect and submit soil samples for required or recommended laboratory testing where necessary.
- Observe the fill and backfill for uniformity during placement.
- Test backfill for field density and compaction to determine the percentage of compaction achieved during backfill placement.
- Observe and probe foundation materials to confirm that suitable bearing materials are present at the design foundation depths.

The governmental agencies having jurisdiction over the project should be notified prior to commencement of grading so that the necessary grading permits can be obtained and arrangements can be made for required inspection(s). The contractor should be familiar with the inspection requirements of the reviewing agencies.

8.0 GENERAL LIMITATION AND BASIS FOR RECOMMENDATIONS

Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable geotechnical consultants practicing in this or similar localities. No other warranty, expressed or implied, is made as to the professional advice included in this report. This report has been prepared for VBAS Properties and their design consultants to be used solely in the design of the proposed Mariner's Pointe. The report has not been prepared for use by other parties, and may not contain sufficient information for purpose of other parties or other uses.

The recommendations provided in this report are based upon our understanding of the described project information and on our interpretation of the data collected during previous subsurface explorations. We have made our recommendations based upon experience with similar subsurface conditions under similar loading conditions. The recommendations apply to the specific project discussed in this report; therefore, any change in the structure configuration, loads, location, or the site grades should be provided to us so that we can review our conclusions and recommendations and make any necessary modifications.

The recommendations provided in this report are also based upon the assumption that the necessary geotechnical observations and testing during construction will be performed by representatives of our firm. The field observation services are considered a continuation of the geotechnical consultation and essential to verify that the actual soil conditions are as expected. This also provides for the procedure whereby the client can be advised of unexpected or changed conditions that would require modifications of our original recommendations. If another firm is retained for the geotechnical observation services, our professional responsibility and liability would be limited to the extent that we would not be the geotechnical engineer of record.

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TABLES

Table 1
Major Named Faults Considered to be Active in Southern California

Fault (in increasing distance)	Maximum Magnitude			Slip Rate mm/yr	Distance From Site (miles)	Direction From Site
San Joaquin Hills	6.6	(a)	RO	0.5	0	SE
Newport-Inglewood Zone	7.1	(a)	SS	1.0	1.5	SW
Palos Verdes	7.3	(a)	SS	3.0	12	SW
Puente Hills Blind Thrust	7.1	(a)	BT	0.7	18.5	NNE
Whittier	6.8	(a)	SS	2.5	21.5	NE
Chino - Central Avenue	6.7	(a)	NO	1.0	24	NE
San Jose	6.4	(a)	RO	0.5	31	NE
Upper Elysian Park Thrust	6.4	(a)	BT	1.3	32	NNW
Elsinore (Glen Ivy Segment)	6.8	(a)	SS	5.0	32	NE
Raymond	6.5	(a)	RO	1.5	37	NNW
Sierra Madre	7.2	(a)	RO	2.0	37	N
Cucamonga	6.9	(a)	RO	5.0	38	NE
Clamshell-Sawpit	6.5	(a)	RO	0.5	39	N
Verdugo	6.9	(a)	RO	0.5	40	NNW
Hollywood	6.4	(a)	RO	1.0	41	NW
Santa Monica	6.6	(a)	RO	1.0	42	NW
San Gabriel	7.2	(a)	SS	1.0	44	N
Malibu Coast	6.7	(a)	RO	0.3	47	NW
San Jacinto (San Bernardino Segment)	6.7	(a)	SS	12.0	48	NE
Northridge Thrust	7.0	(a)	BT	1.5	49	NW
San Andreas (San Bernadino Segment)	7.5	(a)	SS	24.0	52	NE
San Andreas (Mojave Segment)	7.4	(a)	SS	30.0	52	NE
San Cayetano	7.0	(a)	RO	6.0	52	NE
San Fernando	6.7	(a)	RO	2.0	53	NW
Simi-Santa Rosa	7.0	(a)	RO	1.0	66	NW
Santa Susana	6.7	(a)	RO	5.0	70	NW
Oak Ridge (Onshore)	7.0	(a)	RO	4.0	70	NW

(a)	CGS, 2003
BT	Blind Thrust
SS	Strike Slip
NO	Normal Oblique
RO	Reverse Oblique

Table 2
Major Named Faults Considered to be Potentially Active in Southern California

Fault (in increasing distance)`	Maximum Credible Earthquake			Slip Rate mm/yr	Distance From Site (miles)	Direction From Site
Pelican Hill	6.3	(b)	SS	0.1	2.5	NE
Los Alamitos	6.2	(b)	SS	0.1	11.5	NW
El Modeno	6.5	(b)	NO	0.1	15	NE
Peralta Hills	6.5	(b)	RO	0.1	15	NE
Norwalk	6.7	(a)	RO	0.1	18	NNE

(a)	Slemmons, 1979
(b)	Mark, 1977
(c)	Blake, 1998
SS	Strike Slip
NO	Normal Oblique
RO	Reverse Oblique

FIGURES

REFERENCE:
MapPoint, North America, 2009.

N

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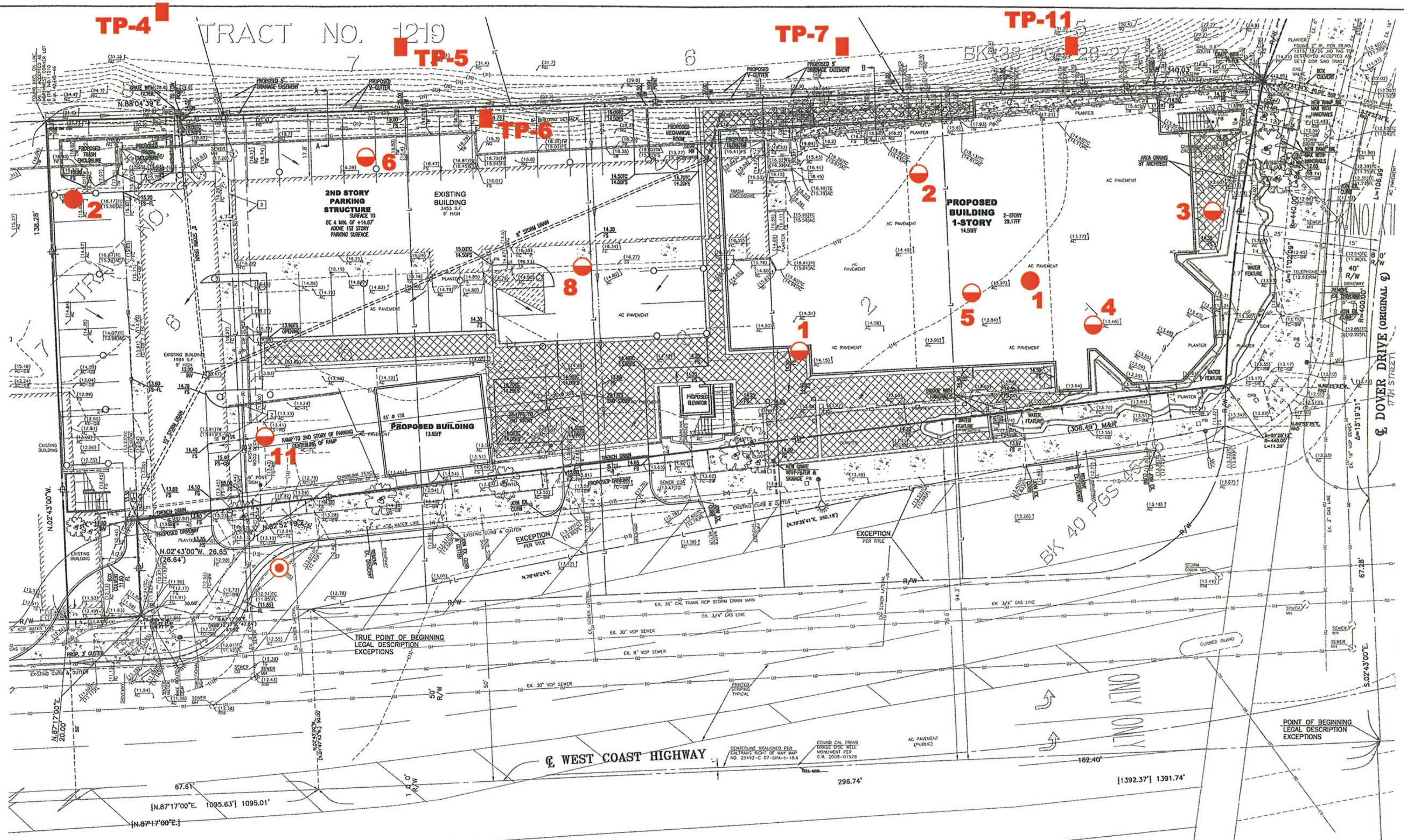
(323) 889-5300 FAX (323) 889-5398

VICINITY MAP

PROPOSED MARINER'S POINTE
NEWPORT BEACH, CALIFORNIA

FIGURE 1

PROJECT NO.	4953-10-0881	REVISION:
DATE:	07/13/2010	
SCALE:	AS NOTED	
DWG BY:	TT	CHECKED BY: LT



N

0 15 30 60
Scale in Feet

REFERENCE:
PRELIMINARY GRADING PLAN, MARINER'S MILE
(DATED 6-17-10) BY ANACAL ENGINEERING CO.

LEGEND:

2 ●	BORING LOCATION BY MACTEC (PRIOR PROJECT 4953-04-3742)
⊙	CONCRETE CORE LOCATION BY MACTEC (PRIOR PROJECT 4953-04-3742)
11 ◒	BORING LOCATION BY KRAZAN (2003)
TP-11 ■	TEST PIT LOCATION BY MACTEC (PRIOR PROJECT 4953-04-3741)

MACTEC
5628 E. SLAUSON AVENUE
LOS ANGELES, CALIFORNIA 90040
(323) 889-5300 FAX (323) 889-5398

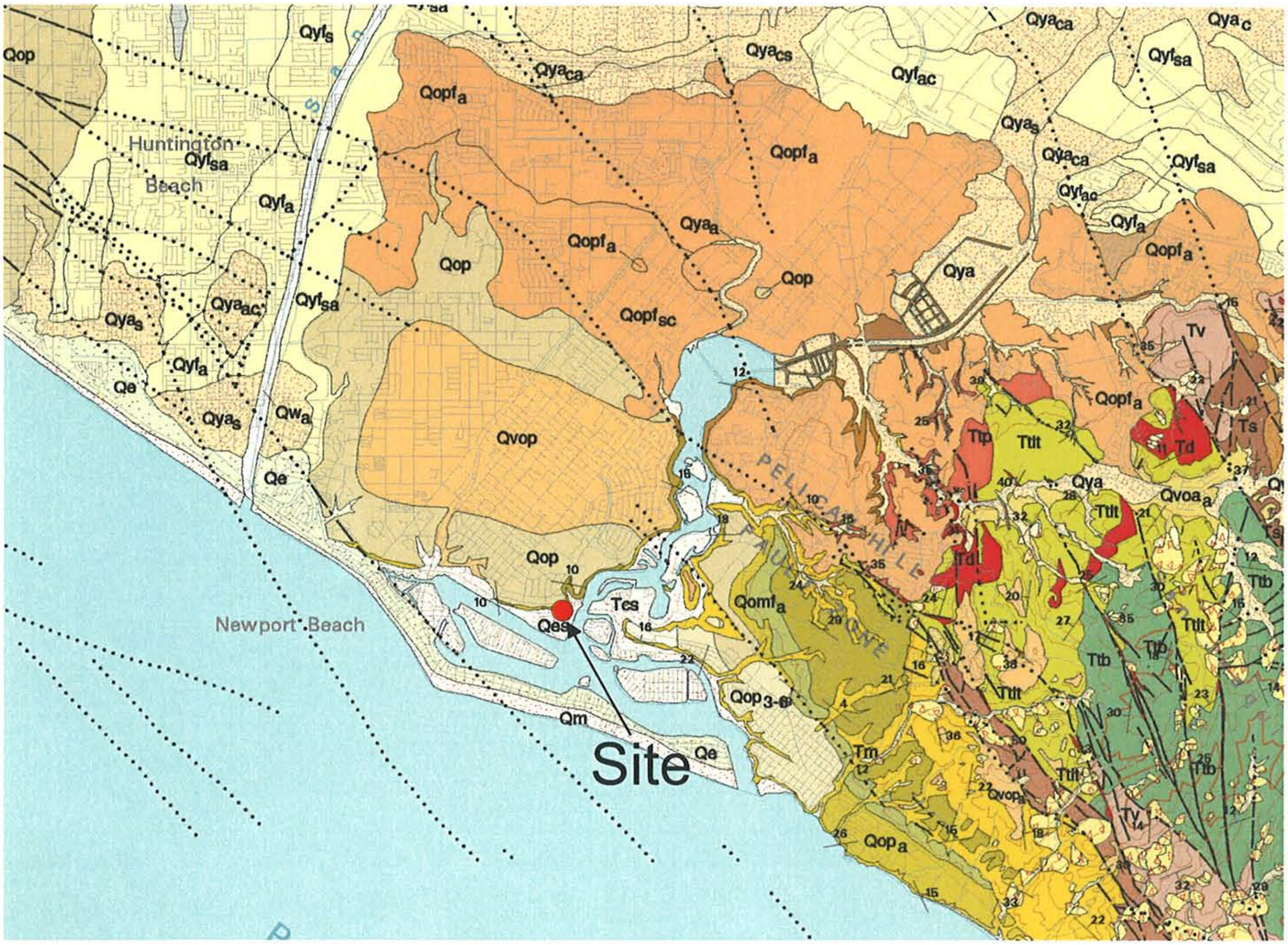
FIGURE 2

PLOT PLAN

PROPOSED MARINER'S POINTE

NW CORNER OF DOVER DRIVE AND WEST COAST HIGHWAY
NEWPORT BEACH, CALIFORNIA

PROJECT NO.	4953-10-0881	REVISION:
DATE:	07/13/2010	
SCALE:	1" = 30'	
DWG BY:	TT	CHECKED BY: LT



EXPLANATION

- Qw Wash Deposits (late Holocene)
- Qm Marine Deposits (late Holocene)
- Qes (Estuarine Deposits (late Holocene)
- Qyf Young Alluvial fan Deposits (Holocene and late Pleistocene)
- Qya Young Axial Channel Deposits (Holocene and late Pleistocene)
- Qop Old Paralic Deposits (late to middle Pleistocene)
- Qopf Old Marine Deposits (late to middle Pleistocene)
- Qvop Very Old Paralic Deposits (middle to early Pleistocene)
- Tcs Capistrano Formation (early Pliocene and Miocene)
- Ttp Topanga Formation Paularino Member (middle Miocene)
- Ttl Topanga Formation Los Trancos Member (middle Miocene)
- Ttb Topanga Formation Bommer Member (middle Miocene)
- Tv Vaqueros Formation (early Miocene, Oligocene, and late Eocene)
- Ts Sespe Formation (early Miocene, Oligocene, and late Eocene)
- ┬ Bedding Attitude
- Contact - dashed where approximately located, gradational or inferred
- Fault - dashed where approximately located; dotted where concealed

0 1 2

Miles

N

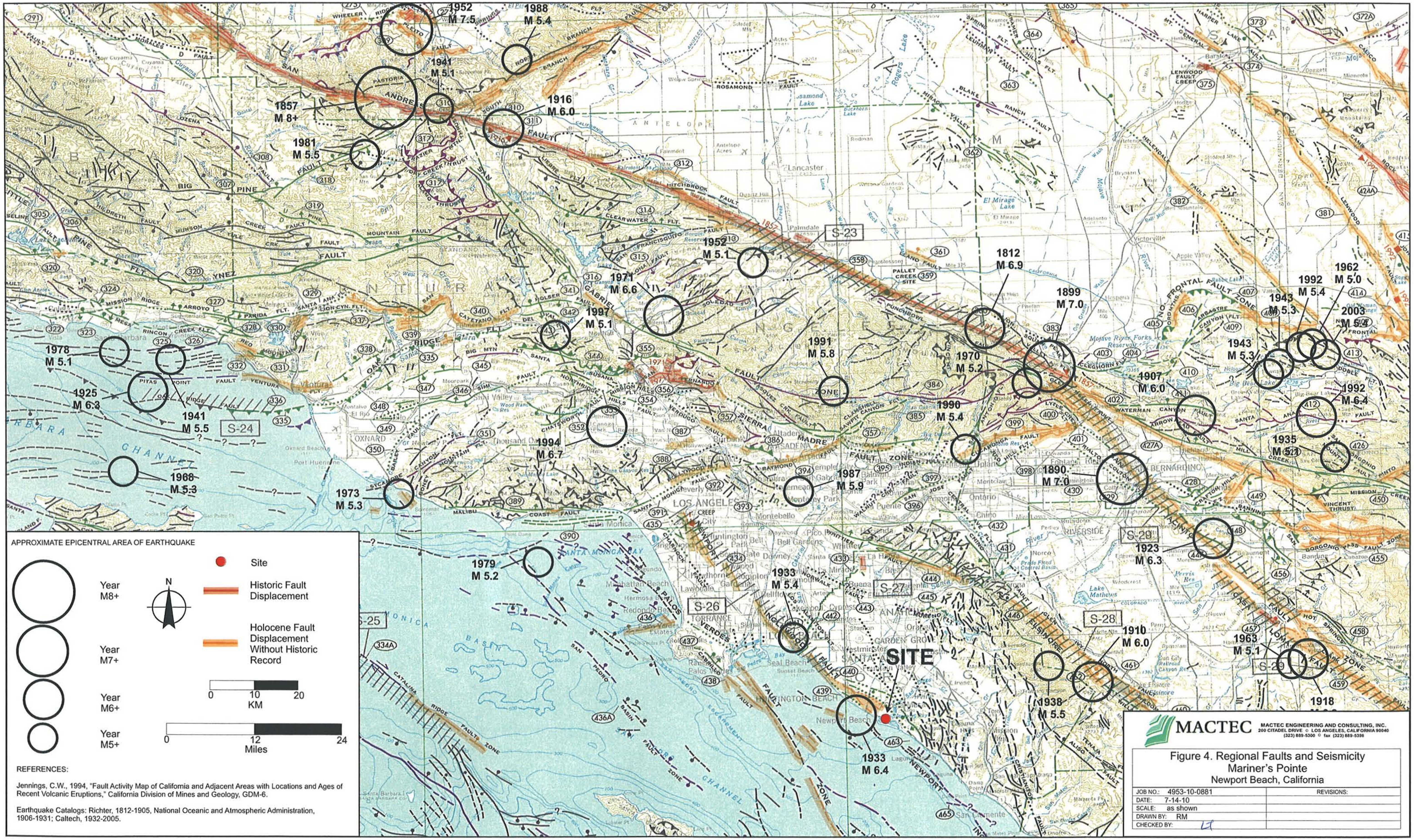
REFERENCE

USGS, 1999, Preliminary Digital Geologic Map of the Santa Ana 30'x60' Quadrangle, Southern California, Version 1, Open File Report 2005-1019, Version 1.0, compiled by D.M. Morton

MACTEC MACTEC Enigineering and Counsulting, Inc.
5628 E. Slauson Ave., Los Angeles, CA 90040-2922

Figure 3. LOCAL GEOLOGY
Mariner's Pointe
Newport Beach, California

JOB No.:	4953-10-0881	
DATE:	7/14/10	
SCALE:	See Bar Scale	
DRAWN BY:	RM	CHECKED BY: LT



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MACTEC

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200 CITADEL DRIVE ○ LOS ANGELES, CALIFORNIA 90040
(323) 889-5300 ○ fax (323) 889-5398

Figure 4. Regional Faults and Seismicity
Mariner's Pointe
Newport Beach, California

JOB NO.: 4953-10-0881	REVISIONS:
DATE: 7-14-10	
SCALE: as shown	
DRAWN BY: RM	
CHECKED BY: LT	

APPENDIX A

PREVIOUS EXPLORATIONS AND LABORATORY TESTS
BY MACTEC

APPENDIX A

PREVIOUS EXPLORATIONS AND LABORATORY TESTS BY MACTEC

PREVIOUS EXPLORATIONS

The soil and bedrock conditions beneath the site were previously explored by MACTEC and by Krazan and Associates (Krazan). The subsurface exploration borings are shown on Figure 2. Two of MACTEC prior borings drilled in 2006 are located at the site of the proposed retail and parking structures (our Job No. 4953-04-0372). Prior data were also available from our test pits performed at the site in 2004 (our Job No. 4953-04-3741). The two prior pertinent borings were drilled to depths of 41 and 50 feet below the existing grade using 4.9-inch-diameter rotary wash-type drilling equipment with drilling mud to prevent caving. The mud was removed following completion of the drilling to permit measurements of the water level. The logs of eight prior pertinent borings along with the laboratory test results by Krazan and Associates, drilled to depths of 8 to 16 feet using hollow-stem auger drilling equipment, are presented in Appendix B

The soils encountered were logged by our field technician, and undisturbed and bulk samples were obtained for laboratory inspection and testing. The logs of the borings are presented in Figures A-1.1 through A-1.2; the depths at which undisturbed samples were obtained are indicated to the left of the boring logs. The number of blows required to drive the Crandall sampler 12 inches using a 300-pound hammer falling 24 inches is indicated on the logs. In addition to obtaining undisturbed samples, standard penetration tests (SPT) were performed in the borings; the results of the tests are indicated on the logs. The soils are classified in the accordance with the Unified Soil Classification System described in Figure A-2.

PRIOR LABORATORY TESTS

Laboratory tests were previously performed on selected samples obtained from the borings to aid in the classification of the soils and bedrock and to determine their engineering properties.

The field moisture content and dry density of the soils encountered were determined by performing tests on the undisturbed samples. The results of the tests are presented on the boring logs.

To determine the plasticity and to aid in classifying the soils and bedrock, the Atterberg Limits of selected soil samples were obtained. The results of the test are shown on the boring logs.

Direct shear tests were previously performed on selected undisturbed samples to determine the strength of the soils and bedrock materials. The tests were performed after soaking to near-saturated moisture content and at various surcharge pressures. To determine the along-bedding strength of the bedrock, the samples were soaked and sheared repeatedly. The shear strengths determined from the direct shear tests and selected design values are presented in Figures A-3.1 through A-3.4, Direct Shear Test Data.

Confined consolidation tests were previously performed on three undisturbed samples of soil and bedrock to determine the compressibility of the materials. The results of the tests are presented in Figures A-4.1 and A-4.2, Consolidation Test Data.

The optimum moisture content and maximum dry density of the upper soils were determined by performing compaction tests on samples obtained from Borings 1 and 3. The tests were previously performed in accordance with the ASTM Designation D1557-91 method of compaction. The results of the tests are presented in Figure A-5, Compaction Test Data.

To determine the particle size distribution of the soils and to aid in classifying the soils, a mechanical analysis was previously performed on one sample. In addition to the full mechanical analysis, a test to determine the percentage of fines (material passing through a -200 sieve) in a selected sample was also performed. The results of these tests are presented in Figure A-6, Particle Size Distribution and on the boring logs.

The Expansion Index of the bedrock materials was previously determined by testing two samples in accordance with the Uniform Building Code Standard No. 29-2 method. The results of the tests are presented in Figure A-7, Expansion Index Test Data.

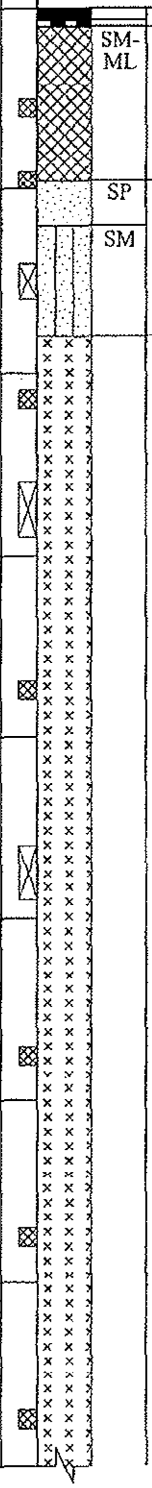
To provide information for paving design, stabilometer tests ("R" value) were performed on two samples of the upper soils. The tests were previously performed for us by LaBelle·Marvin Professional Pavement Engineering. The results of the tests are presented in Figures A-8.1 through A-8.5.

Soil corrosivity studies were previously performed on samples of the on-site soils and bedrock. The results of the study and recommendations for mitigating procedures are presented in Figures A-9.1 through A-9.6.

BORING 1

DATE DRILLED: January 24, 2006
EQUIPMENT USED: Rotary Wash
HOLE DIAMETER (in.): 4.9 inches
ELEVATION: 13.8**

ELEVATION (ft)	DEPTH (ft)	"N" VALUE STD.PEN.TEST	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)
			10.7	119	18
10	5		9.9	111	19
		4			
5	10		57.0	62	18
0		76/11"			
	15				
-5			44.6	71	49/4"
	20				
-10		54/10"			
	25				
-15			45.6	72	47/10"
	30				
-20			36.5	79	53/10"
	35				
-25			50.2	68	60/9"
	40				



4" Asphalt Paving - 6" Base Course

ARTIFICIAL FILL (af) - SILTY SAND and SANDY SILT - moist, grey and brown, few gravel

RECENT MARINE DEPOSITS (Qm)
POORLY GRADED SAND - moist, light brown
SILTY SAND - very loose, wet, grey

CAPISTRANO FORMATION (Tc)
SILTSTONE - light brown, highly fractured and jointed
▼ Dark bluish grey, thickly bedded to massive with lenses of fine sand

Hydrogen sulfide odor, interbedded sandier layers

Harder drilling from 25' to 26½'

(Finished Slab @ Elevation -13.5')

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

Field Tech: GMC
Prepared By: KLT
Checked By: ML

(CONTINUED ON FOLLOWING FIGURE)

Mariner's Mile Gateway
Newport Beach, California

MACTEC

LOG OF BORING

Project: 4953-04-3742 Figure: A-1.1a

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

BORING 1 (Continued)

DATE DRILLED: January 24, 2006
EQUIPMENT USED: Rotary Wash
HOLE DIAMETER (in.): 4.9 inches
ELEVATION: 13.8**

ELEVATION (ft)	DEPTH (ft)	"N" VALUE STD.PEN.TEST	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.
-30					49/10"	☒
	45					
-35					52/10"	☒
	50					
-40	55					
-45	60					
-50	65					
-55	70					
-60	75					
-65	80					

END OF BORING AT 50 FEET

NOTES:

Drilling mud used in drilling process. Groundwater measured at a depth of 11 feet for both 15 minutes and 10 hours after completion of drilling. Some caving and sloughing at 7 to 8 feet. Boring backfilled with cement bentonite grout and patched with asphalt.

* Number of blows required to drive Crandall sampler 12 inches using a 300-pound hammer falling 24 inches.

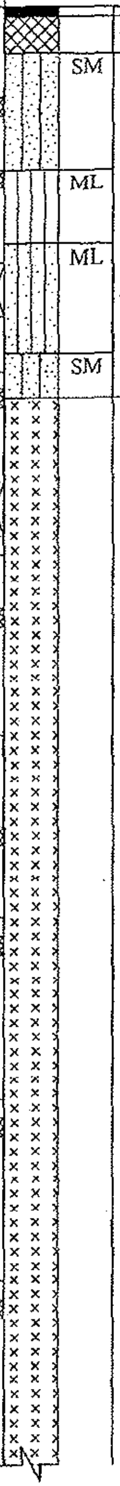
** Elevations refer to datum of Topographic Map, Mariner's Mile Gateway (dated 11-21-04) by Development Resource Consultants, Inc.

Field Tech: GMC
Prepared By: KLT
Checked By:

BORING 2

DATE DRILLED: January 25, 2006
EQUIPMENT USED: Rotary Wash
HOLE DIAMETER (in.): 4.9 inches
ELEVATION: 15.9**

ELEVATION (ft)	DEPTH (ft)	"N" VALUE STD.PEN.TEST	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.		
								3" Asphalt Paving
15								**ARTIFICIAL FILL (af)**
							SM	SILTY SAND - some shell fragments, moist, light brown, some gravel
								RECENT MARINE DEPOSITS (Qm)
			20.3	92	2	☒		SILTY SAND - moist, light brown, some alkali streaks, 45.8% Passing No. 200 Sieve
	5		54.8	60	2	☒	ML	SILT - moist, light brown, some alkali streaks LL=45.3, PI=15.7
10								
							ML	SANDY SILT - very soft, wet, light brown
		0				☒		▼
	10						SM	SILTY SAND - light brown and light grey, some siltstone fragments, trace clay, 27% Passing No. 200 Sieve
								CAPISTRANO FORMATION (Tc)
5			51.8	67	22	☒		SILTSTONE - moist, light bluish grey, thinly bedded, slightly fractured
		30				☒		Dark grey, interbedded sandier layers
	15							Strong hydrogen sulfide odor
0								
			48.3	68	37	☒		Cemented layers, very hard drilling to 26'
	20							
-5								
			51.0	66	41	☒		
	25							
-10			26.5	83	50/6"	☒		
								Some cemented layers Strong hydrogen sulfide odor
								(Finished Slab @ Elevation -13.5)
	30							
-15					63	☒		
	35							
-20			41.3	75	72	☒		
	40							



THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

Field Tech: GMC
Prepared By: KLT
Checked By: M

(CONTINUED ON FOLLOWING FIGURE)

Mariner's Mile Gateway
Newport Beach, California

MACTEC

LOG OF BORING

Project: 4953-04-3742
Figure: A-1.2a

BORING 2 (Continued)

DATE DRILLED: January 25, 2006
EQUIPMENT USED: Rotary Wash
HOLE DIAMETER (in.): 4.9 inches
ELEVATION: 15.9**

ELEVATION (ft)	DEPTH (ft)	"N" VALUE STD.PEN.TEST	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.
-25			46.4	68	72/10"	▩
	45					
-30						
	50					
-35						
	55					
-40						
	60					
-45						
	65					
-50						
	70					
-55						
	75					
-60						
	80					

END OF BORING AT 41 FEET

NOTES: Drilling mud used in drilling process. Groundwater encountered at 8 feet 10 minutes after completion of drilling. Caving and sloughing at 6½ to 9½ feet. Boring backfilled with cement bentonite grout and patched with asphalt.

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

Field Tech: GMC
Prepared By: KLT
Checked By: JM

Mariner's Mile Gateway
Newport Beach, California

MACTEC

LOG OF BORING
Project: 4953-04-3742 Figure: A-1.2b

MAJOR DIVISIONS			GROUP SYMBOLS	TYPICAL NAMES
COARSE GRAINED SOILS (More than 50% of material is LARGER than No. 200 sieve size)	GRAVELS (More than 50% of coarse fraction is LARGER than the No. 4 sieve size)	CLEAN GRAVELS (Little or no fines)	GW	Well graded gravels, gravel - sand mixtures, little or no fines.
			GP	Poorly graded gravels or gravel - sand mixtures, little or no fines.
		GRAVELS WITH FINES (Appreciable amount of fines)	GM	Silty gravels, gravel - sand - silt mixtures.
			GC	Clayey gravels, gravel - sand - clay mixtures.
	SANDS (More than 50% of coarse fraction is SMALLER than the No. 4 Sieve Size)	CLEAN SANDS (Little or no fines)	SW	Well graded sands, gravelly sands, little or no fines.
			SP	Poorly graded sands or gravelly sands, little or no fines.
		SANDS WITH FINES (Appreciable amount of fines)	SM	Silty sands, sand - silt mixtures
			SC	Clayey sands, sand - clay mixtures.
FINE GRAINED SOILS (More than 50% of material is SMALLER than No. 200 sieve size)	SILTS AND CLAYS (Liquid limit LESS than 50)		ML	Inorganic silts and very fine sands, rock flour, silty of clayey fine sands or clayey silts and with slight plasticity.
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
			OL	Organic silts and organic silty clays of low plasticity.
	SILTS AND CLAYS (Liquid limit GREATER than 50)		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
			CH	Inorganic clays of high plasticity, fat clays
			OH	Organic clays of medium to high plasticity, organic silts.
HIGHLY ORGANIC SOILS			PT	Peat and other highly organic soils.

■	Undisturbed Sample	▮	Auger Cuttings
☒	Standard Penetration Test	≋	Bulk Sample
▯	Rock Core	▩	Crandall Sampler
▩	Dilatometer	⁘	Pressure Meter
□	Packer	○	No Recovery
▽	Water Table at time of drilling	▼	Water Table after 24 hours

Correlation of Penetration Resistance with Relative Density and Consistency

SAND & GRAVEL		SILT & CLAY	
No. of Blows	Relative Density	No. of Blows	Consistency
0 - 4	Very Loose	0 - 1	Very Soft
5 - 10	Loose	2 - 4	Soft
11 - 30	Medium Dense	5 - 8	Medium Stiff
31 - 50	Dense	9 - 15	Stiff
Over 50	Very Dense	16 - 30	Very Stiff
		Over 30	Hard

<u>BOUNDARY CLASSIFICATIONS:</u> Soils possessing characteristics of two groups are designated by combinations of group symbols.

SILT OR CLAY	SAND			GRAVEL		Cobbles	Boulders
	Fine	Medium	Coarse	Fine	Coarse		

No.200 No.40 No.10 No.4 3/4" 3" 12"

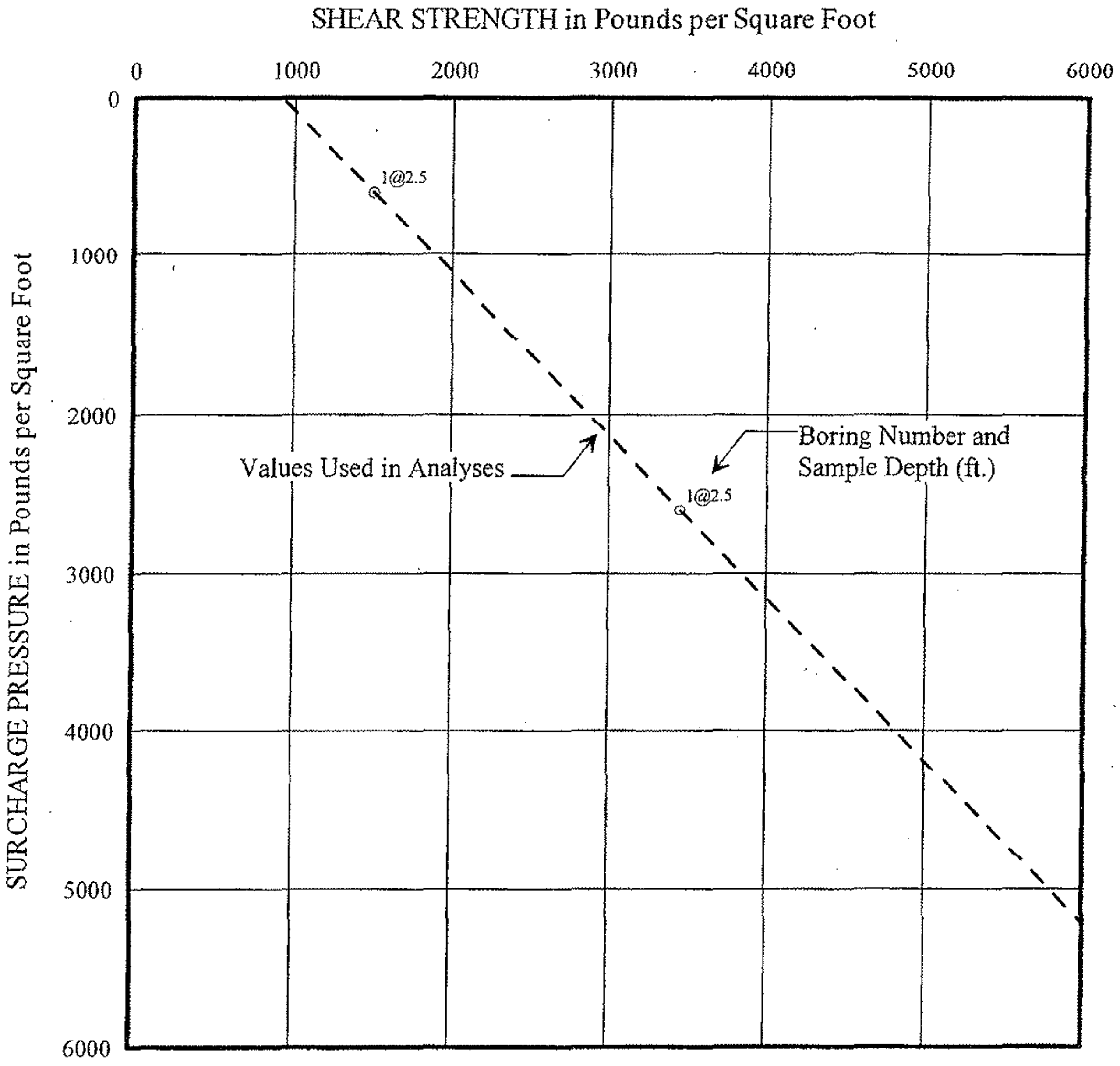
U.S. STANDARD SIEVE SIZE

<u>Reference:</u> The Unified Soil Classification System, Corps of Engineers, U.S. Army Technical Memorandum No. 3-357, Vol. 1, March, 1953 (Revised April, 1960)

KEY TO SYMBOLS AND DESCRIPTIONS

MACTEC

FIGURE A-2

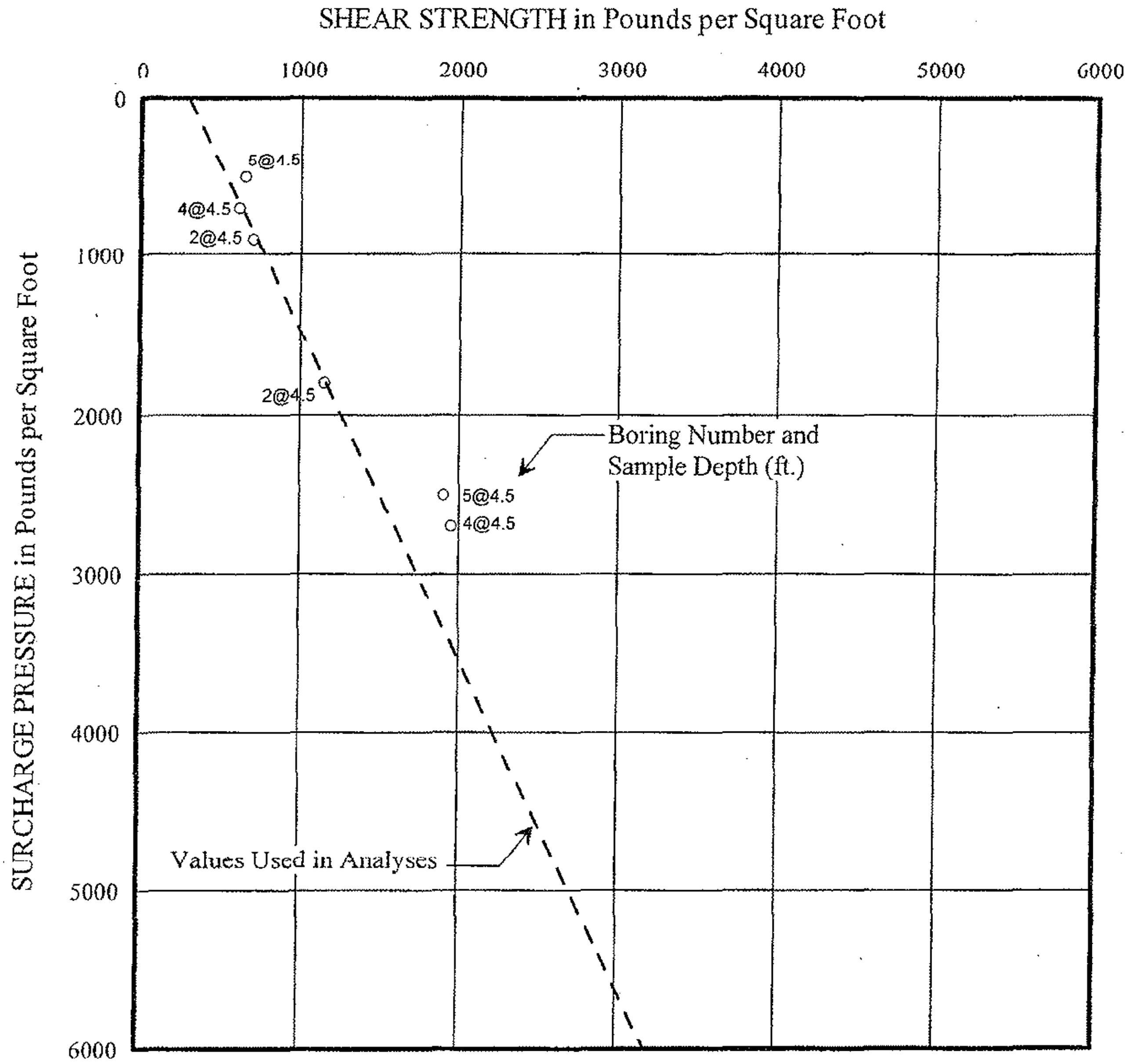


KEY: ○ Samples tested after soaking to a moisture content near saturation.

ARTIFICIAL FILL (UNDISTURBED SAMPLE)
Yield Strength

Prepared/Date: KLT 02/24/06
Checked/Date: VL

Mariner's Mile Gateway Newport Beach, California	MACTEC	DIRECT SHEAR TEST DATA Project No. 4953-04-3742 Figure A-3.1

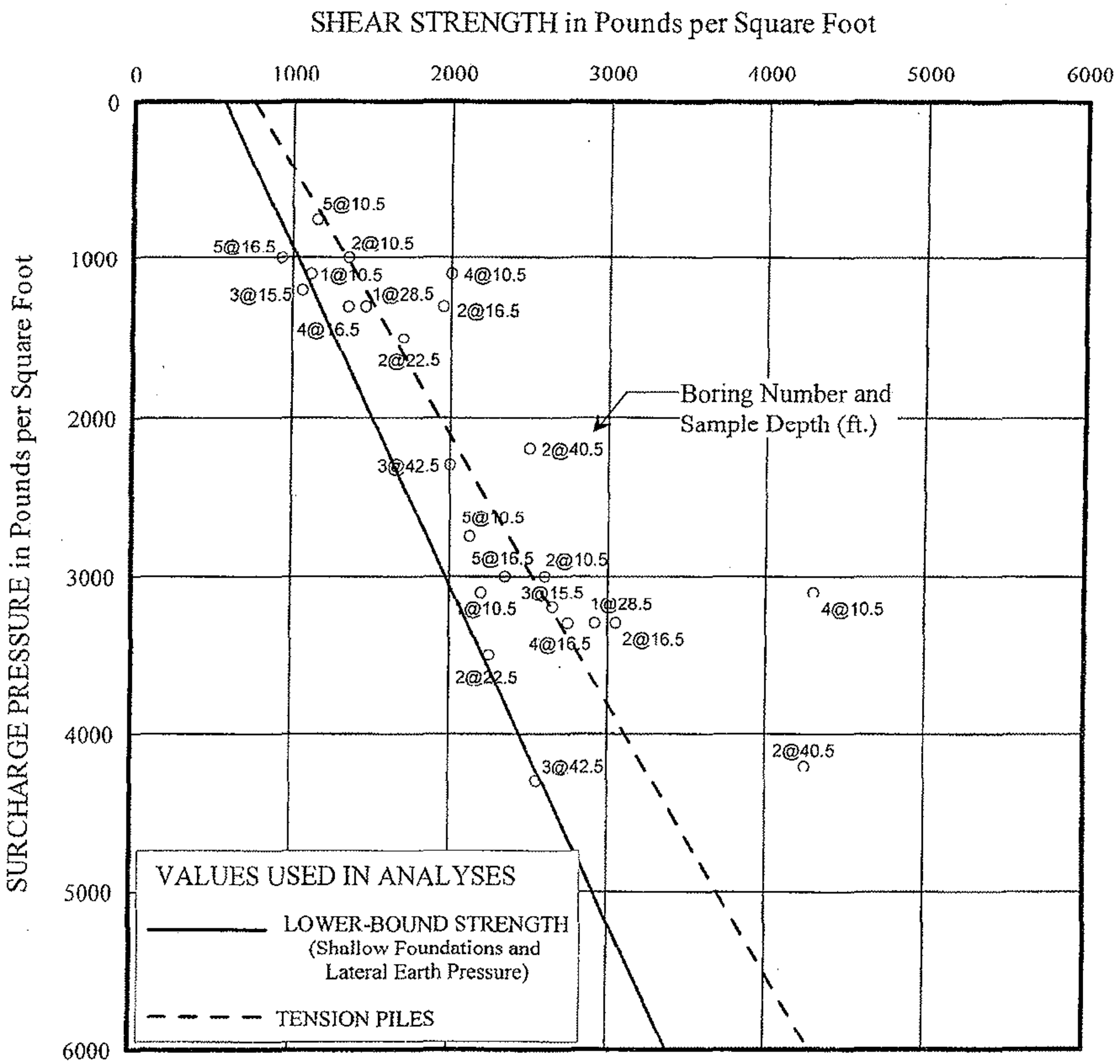


KEY: ○ Samples tested after soaking to a moisture content near saturation.

RECENT MARINE DEPOSITS
Yield Strength

Prepared/Date: KLT 02/24/06
Checked/Date: ML

Mariner's Mile Gateway Newport Beach, California	MACTEC	DIRECT SHEAR TEST DATA Project No. 4953-04-3742 Figure A-3.2



KEY: ○ Samples tested after soaking to a moisture content near saturation.

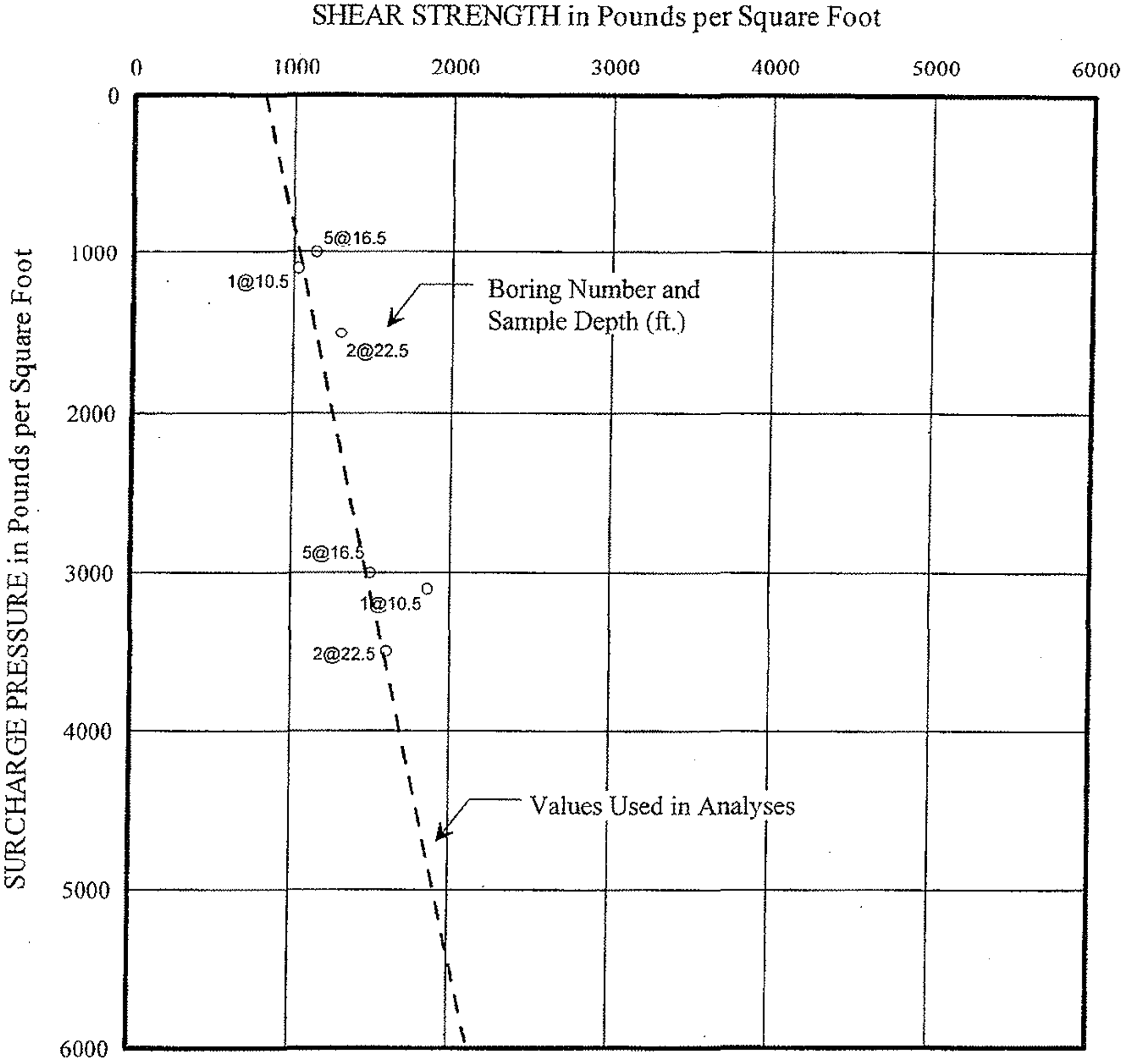
CAPISTRANO FORMATION
Yield Strength

Prepared/Date: KLT 02/24/06
Checked/Date:

Mariner's Mile Gateway
Newport Beach, California

MACTEC

DIRECT SHEAR TEST DATA
Project No. 4953-04-3742
Figure A-3.3

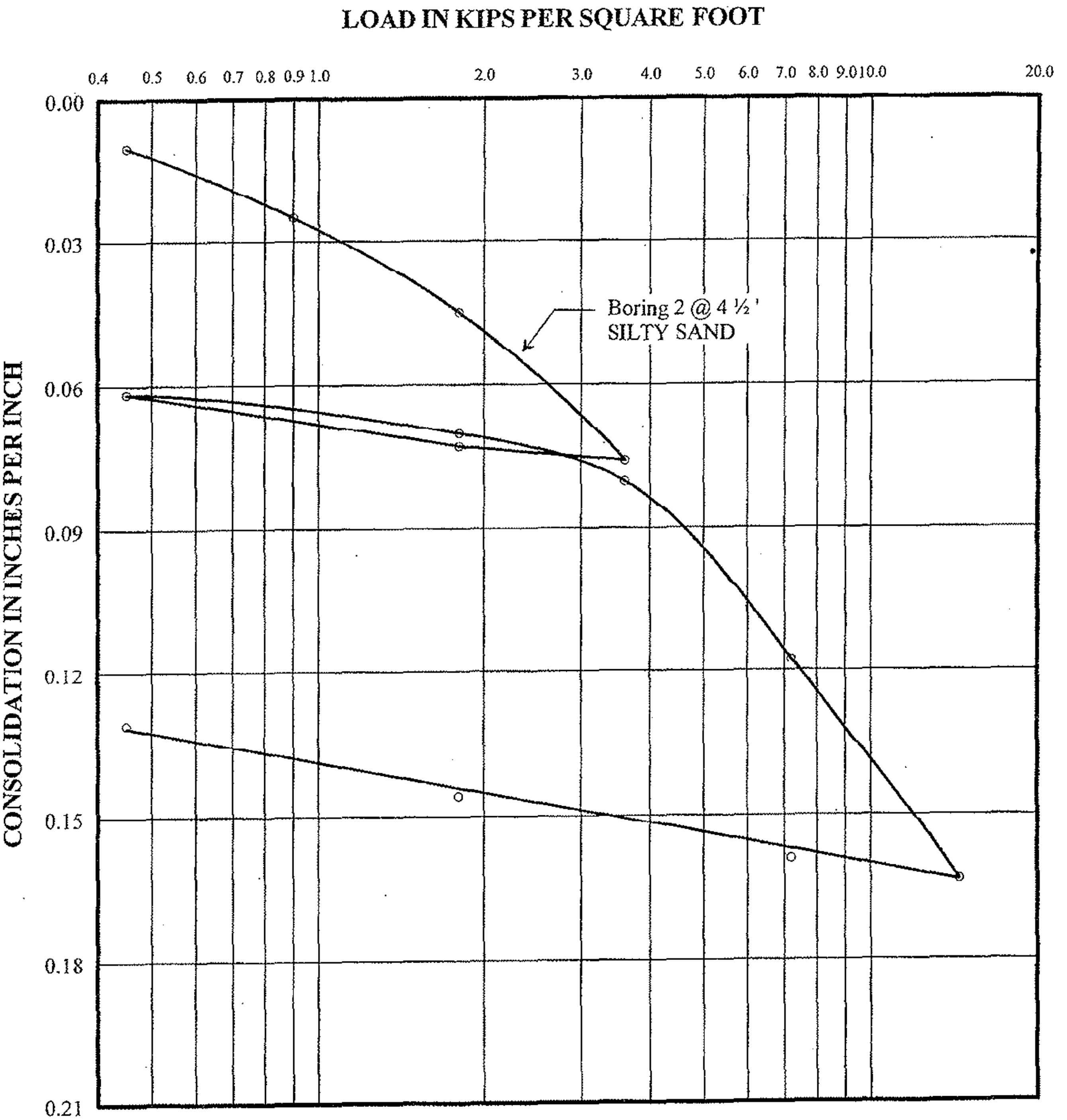


KEY: ○ Samples tested after soaking to a moisture content near saturation.

CAPISTRANO FORMATION
Along-Bedding Strength (Residual)

Prepared/Date: KLT 02/24/06
Checked/Date:

Mariner's Mile Gateway Newport Beach, California	MACTEC	DIRECT SHEAR TEST DATA Project No. 4953-04-3742 Figure A-3.4



NOTE: Sample tested at field moisture content.

Prepared/Date: KLT 02/24/06
Checked/Date: JA

Mariner's Mile Gateway Newport Beach, California	MACTEC	CONSOLIDATION TEST DATA Project No. 4953-04-3742 Figure A-4.1

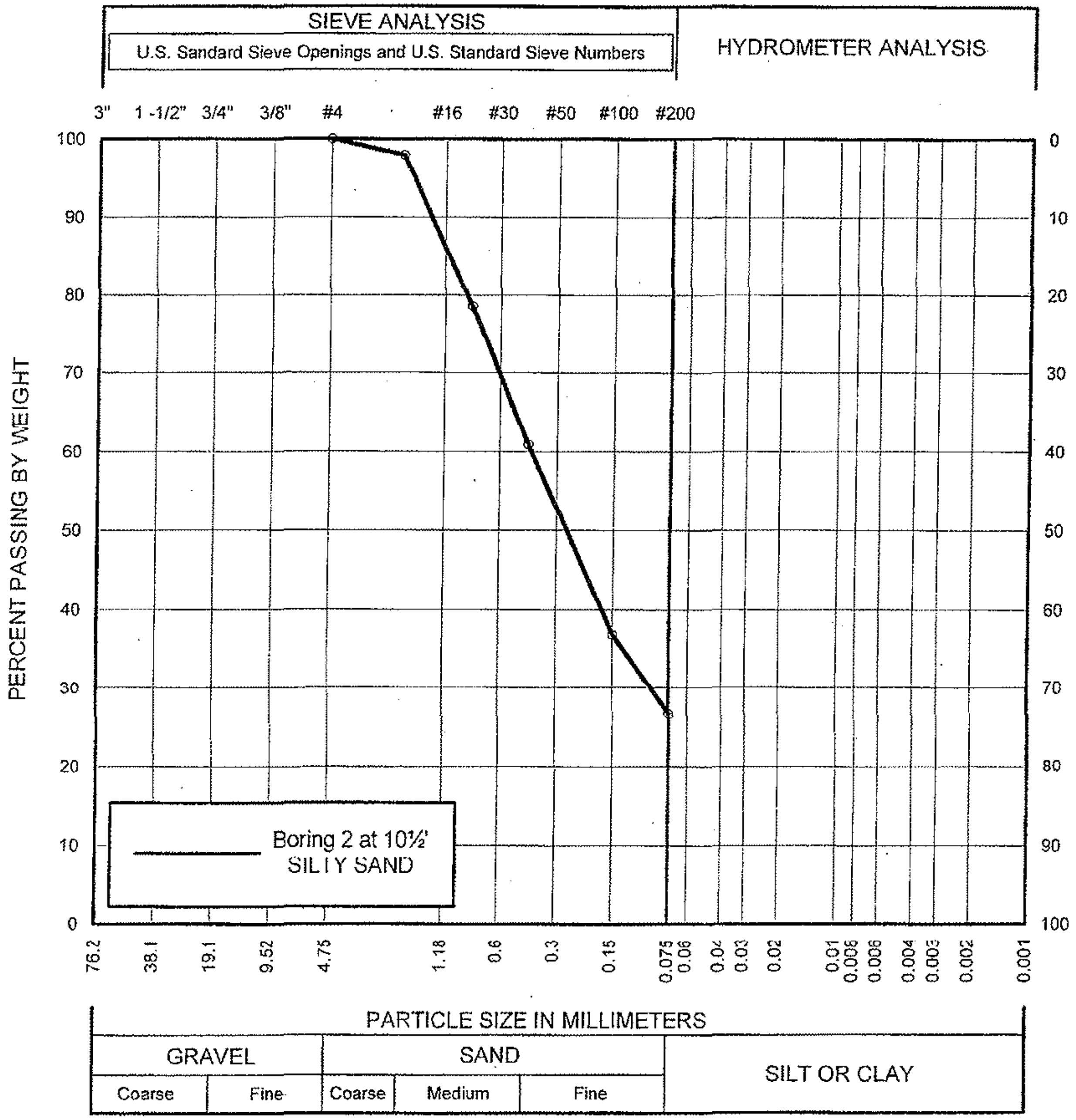
BORING NUMBER AND SAMPLE DEPTH:	1 at 1 to 4'	3 at 2 to 6'
SOIL TYPE:	FILL - SILTY SAND (SM) AND SANDY SILT (ML)	SAND (SP)
MAXIMUM DRY DENSITY: (lbs./cu.ft.)	125.9	106.6
OPTIMUM MOISTURE CONTENT: (%)	9.0	8.5

Prepared/Date: KLT 02/24/06
Checked/Date:

Mariner's Mile Gateway
Newport Beach, California

MACTEC

COMPACTION TEST DATA
Project No. 4953-04-3742
Figure A-5



Prepared/Date: LT 2/27/06
Checked/Date: JL

Mariner's Mile Gateway Newport Beach, California	MACTEC	PARTICLE SIZE DISTRIBUTION Project No. 4953-04-3742 Figure A-6

BORING NUMBER AND SAMPLE DEPTH:	5 at 16½'	2 at 30½'
SOIL TYPE:	SILTSTONE (Clayey Zone)	SILTSTONE
CONFINING PRESSURE: (lbs./sq. ft.)	144	144
INITIAL MOISTURE CONTENT: (% dry wt.)	36.1	29.8
FINAL MOISTURE CONTENT: (% dry wt.)	61.6	57.8
DRY DENSITY: (lbs/cu.ft.)	63.0	65.1
EXPANSION INDEX:	66	65

Prepared/Date: KLT 02/24/06
Checked/Date:

Mariner's Mile Gateway
Newport Beach, California

MACTEC

EXPANSION INDEX TEST DATA
Project No. 4953-04-3742
Figure A-7

• ANALYSIS
• DESIGN

LaBelle • Marvin

• SOILS, ASPHALT TECHNOLOGY

PROFESSIONAL PAVEMENT ENGINEERING
A CALIFORNIA CORPORATION

February 24, 2006

Mr. Victor Langhar
Mactec
200 Citadel Drive
Los Angeles, California 90040

Project No. 33062

Dear Mr. Langhar:

Testing of the two (2) bulk soil samples delivered to our laboratory has been completed with the following results:

Reference: **4953-04-3742**
APO 54794- Mariners

R-Value data sheets are attached for your use and file. The opportunity to be of service is sincerely appreciated Please do not hesitate to call should you have any questions.

Respectfully Submitted,

No. 30659
Exp. 3/31/06

Steven R. Marvin
RCE 30659

SRM:ks
Attachments

2700 S. GRAND AVENUE • SANTA ANA, CA 92705-5404 • (714) 546-3468 • FAX (714) 546-5841
INFO@LABELLEMARVIN.COM

R - VALUE DATA SHEET

J.N. 4953-04-3742
Mariners Mile Gtwy.

PROJECT NUMBER 33062 BORING NUMBER: B-1 @ 1'-4'

SAMPLE DESCRIPTION: Brown Silty Sand

Item	SPECIMEN		
	a	b	c
Mold Number	4	5	6
Water added, grams	63	76	59
Initial Test Water, %	9.1	10.2	8.7
Compact Gage Pressure,psi	350	325	350
Exudation Pressure, psi	428	190	722
Height Sample, Inches	2.55	2.55	2.57
Gross Weight Mold, grams	3243	3265	3278
Tare Weight Mold, grams	2120	2117	2122
Sample Wet Weight, grams	1123	1148	1156
Expansion, Inches x 10exp-4	3	2	5
Stability 2,000 lbs (160psi)	14 / 27	19 / 38	13 / 25
Turns Displacement	4.08	4.15	4.03
R-Value Uncorrected	75	66	77
R-Value Corrected	75	66	78
Dry Density, pcf	122.3	123.8	125.4
	DESIGN CALCULATION DATA		
Traffic Index Assumed:	4.0	4.0	4.0
G.E. by Stability	0.26	0.35	0.23
G. E. by Expansion	0.10	0.07	0.17

Equilibrium R-Value 71 by EXUDATION

Examined & Checked: 2 /10/ 06

REMARKS:
Gf = 1.25
0.0% Retained on the
3/4" Sieve.

Steven R. Marvin, RCE 30659

The data above is based upon processing and testing samples as received from the field. Test procedures in accordance with latest revisions to Department of Transportation, State of California, Materials & Research Test Method No. 301.

LaBelle • Marvin

Figure A-8.2

R-VALUE GRAPHICAL PRESENTATION

PROJECT NO. 33062

JN. 4953-04-3742

BORING NO. B-1 @ 1'-4'

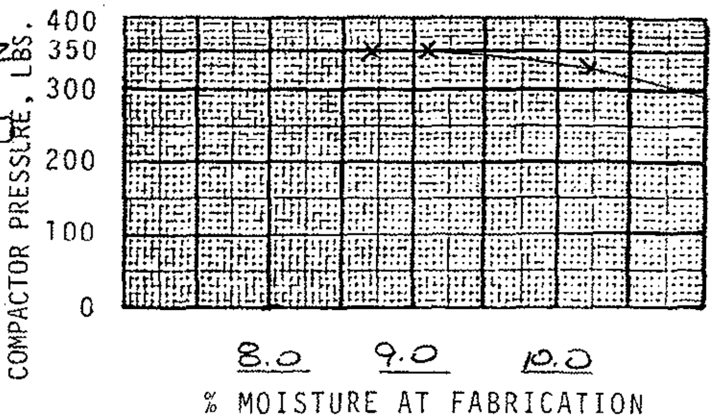
Mariners Mile Gateway

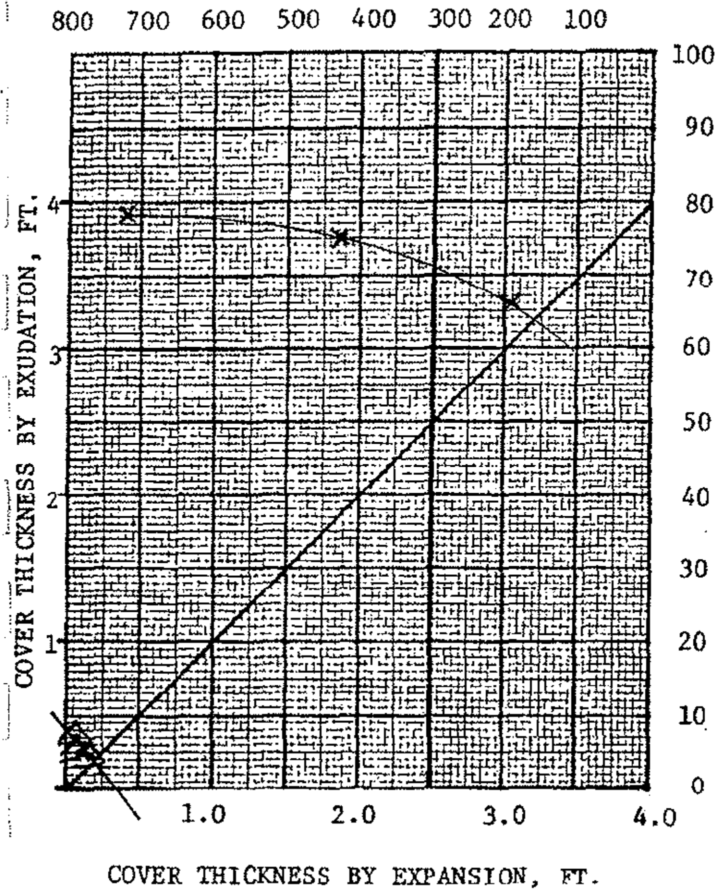
DATE 2-10-06

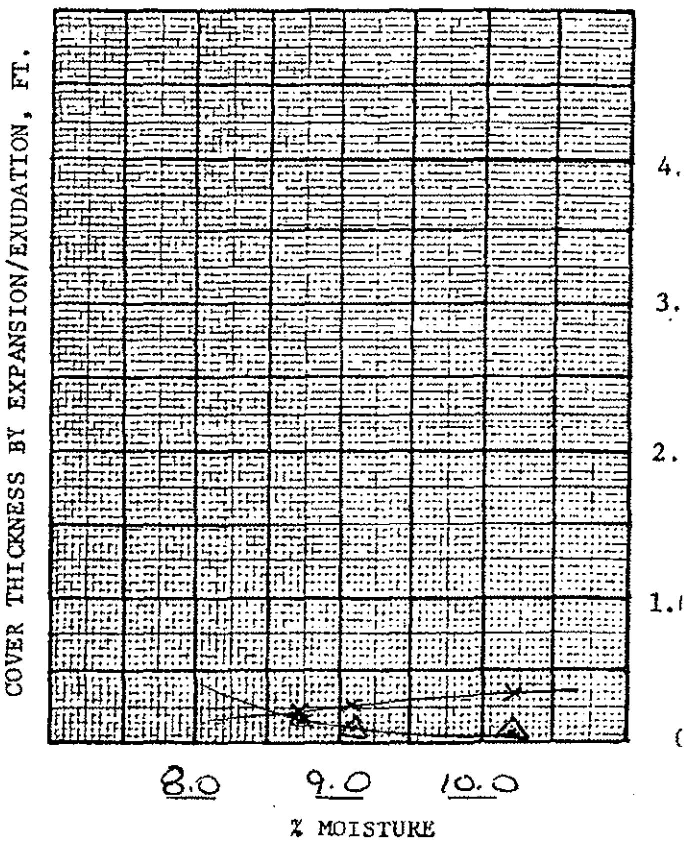
TRAFFIC INDEX Assume 4.0

R-VALUE BY EXUDATION 71

R-VALUE BY EXPANSION







—✱—✱—✱— R-VALUE vs. EXUD. PRES. —×—×—×— T by EXUDATION

—▲—▲—▲— EXUD. T vs. EXPAN. T —▲—▲—▲— T by EXPANSION

REMARKS

GF=1.25

LaBelle • Marvin
PROFESSIONAL PAVEMENT ENGINEERING

Figure A-8.3

R - VALUE DATA SHEET

J.N. 4953-04-3742
Mariners Mile Gtwy.

PROJECT NUMBER 33062 BORING NUMBER: B-2 @ 1'-4'

SAMPLE DESCRIPTION: Brown Clayey Sand

Item	SPECIMEN		
	a	b	c
Mold Number	4	5	6
Water added, grams	25	0	-20
Initial Test Water, %	16.1	13.7	11.8
Compact Gage Pressure,psi	55	160	335
Exudation Pressure, psi	148	361	662
Height Sample, Inches	2.59	2.48	2.47
Gross Weight Mold, grams	3186	3163	3179
Tare Weight Mold, grams	2120	2117	2122
Sample Wet Weight, grams	1066	1046	1057
Expansion, Inches x 10exp-4	13	31	110
Stability 2,000 lbs (160psi)	46 / 110	37 / 87	27 / 56
Turns Displacement	5.38	4.31	3.63
R-Value Uncorrected	17	33	56
R-Value Corrected	18	33	56
Dry Density, pcf	107.4	112.4	115.9
	DESIGN CALCULATION DATA		
Traffic Index Assumed:	4.0	4.0	4.0
G.E. by Stability	0.84	0.69	0.45
G. E. by Expansion	0.43	1.03	3.67

Equilibrium R-Value 27 by EXPANSION

Examined & Checked: 2 /10/ 06

REMARKS:
Gf = 1.25
0.0% Retained on the 3/4" Sieve.

Steven R. Marvin, RCE 30659

The data above is based upon processing and testing samples as received from the field. Test procedures in accordance with latest revisions to Department of Transportation, State of California, Materials & Research Test Method No. 301.

R-VALUE GRAPHICAL PRESENTATION

PROJECT NO. 33062 P.N. 4953-04-3742

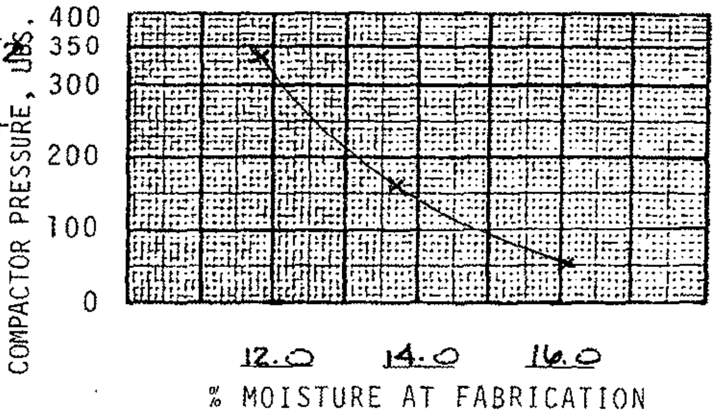
BORING NO. B-2 @1'-4' Mariners Mile Gateway

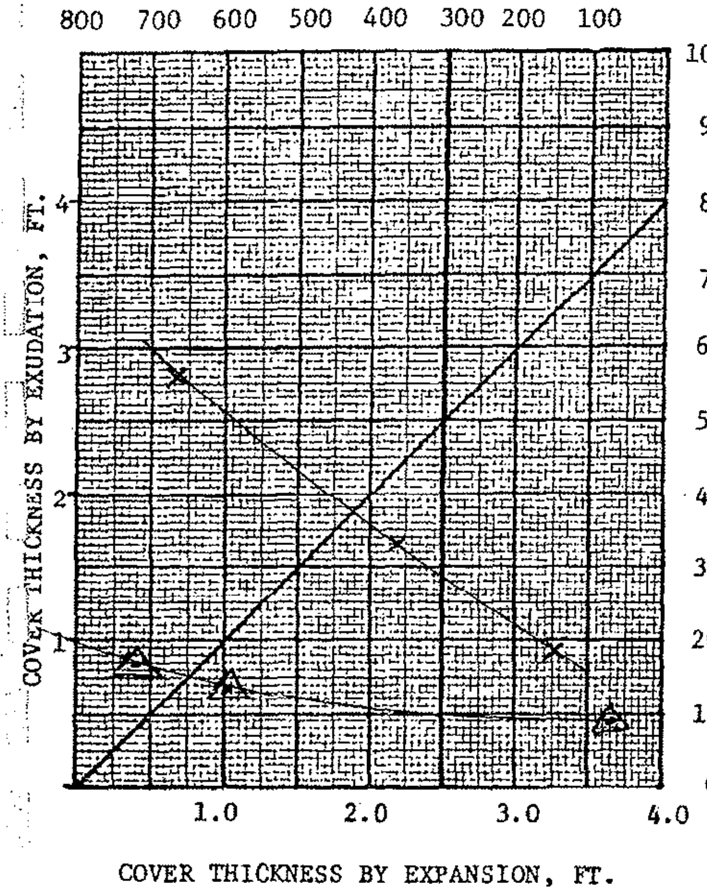
DATE 2-10-06

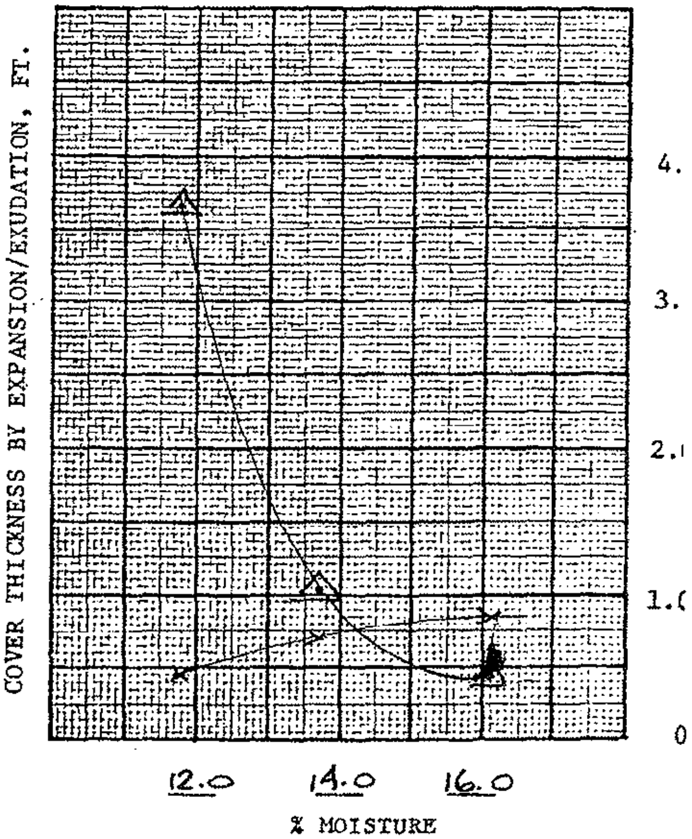
TRAFFIC INDEX Assume 4.0

R-VALUE BY EXUDATION 28

R-VALUE BY EXPANSION 27







—✱—✱—✱— R-VALUE vs. EXUD. PRES. —✕—✕—✕— T by EXUDATION

—△—△—△— EXUD. T vs. EXPAN. T —△—△—△— T by EXPANSION

REMARKS

GF=1.25

LaBelle • Marvin
PROFESSIONAL PAVEMENT ENGINEERING

Figure A-8.5

SCHIFF ASSOCIATES

www.schiffassociates.com
Consulting Corrosion Engineers – Since 1959

February 17, 2006 Via fax: 323.889.5398

MACTEC
200 Citadel Drive
Los Angeles, CA 90040

Attention: Ms. Kristi Twilley

Re: Soil Corrosivity Study
Mariners Mile Gateway
Newport Beach, California
MACTEC #4953-04-3742, SA #06-0221SCS

INTRODUCTION

Laboratory tests have been completed on three soil samples provided for the referenced project. The purpose of these tests was to determine if the soils might have deleterious effects on underground utility piping and concrete structures. We assume that the samples provided are representative of the most corrosive soils at the site.

The proposed retail structure has two subterranean levels. It is located at NWC Pacific Coast Highway and Dover Drive in Newport Beach, California and the water table level is approximately six feet deep.

The scope of this study is limited to a determination of soil corrosivity and general corrosion control recommendations for materials likely to be used for construction. Our recommendations do not constitute, and are not meant as a substitute for, design documents for the purpose of construction. If the architects and/or engineers desire more specific information, designs, specifications, or review of design, we will be happy to work with them as a separate phase of this project.

LABORATORY SOIL CORROSIVITY TESTS

The electrical resistivity of each sample was measured in a soil box per ASTM G57 in its as-received condition and again after saturation with distilled water. Resistivities are at about their lowest value when the soil is saturated. The pH of the saturated samples was measured. A 5:1 water:soil extract from each sample was chemically analyzed for the major soluble salts commonly found in soils and for ammonium and nitrate. Sulfide and oxidation-reduction (redox) potential were determined on all three samples. Test results are shown in Table 1.

SOIL CORROSIVITY

A major factor in determining soil corrosivity is electrical resistivity. The electrical resistivity of a soil is a measure of its resistance to the flow of electrical current. Corrosion of buried metal is an electrochemical process in which the amount of metal loss due to corrosion is directly proportional to the flow of electrical current (DC) from the metal into the soil. Corrosion currents, following Ohm's Law, are inversely proportional to soil resistivity. Lower electrical resistivities result from higher moisture and soluble salt contents and indicate corrosive soil.

A correlation between electrical resistivity and corrosivity toward ferrous metals is:

Soil Resistivity in ohm-centimeters			Corrosivity Category
over		10,000	mildly corrosive
2,000	to	10,000	moderately corrosive
1,000	to	2,000	corrosive
below		1,000	severely corrosive

Other soil characteristics that may influence corrosivity towards metals are pH, soluble salt content, soil types, aeration, anaerobic conditions, and site drainage.

Electrical resistivities were in moderately corrosive and severely corrosive categories with as-received moisture. When saturated, the resistivities were in the severely corrosive category. One as-received resistivity was at its saturated value. The remaining resistivities dropped considerably with added moisture because the samples were dry as-received. The wide variations in soil resistivity can create concentration type corrosion cells that increase corrosion rates above what would be expected from the chemical characteristics alone.

Soil pH values varied from 7.4 to 7.7. This range is mildly alkaline.

The soluble salt content was very high in all three borings. Chloride and sulfate salts were the predominant constituents. Chloride is particularly corrosive to ferrous metals, and in the higher concentrations measured in the soil samples, chloride can overcome the corrosion inhibiting effect of concrete on reinforcing steel. Sulfate was in a range where sulfate resistant cement is recommended.

Nitrate was detected in low concentrations. The ammonium concentration detected was high enough to be deleterious to copper.

Sulfide, which is aggressive to copper and ferrous metals, was found to be present in a qualitative test performed on all three samples. The negative redox potential measured on the sample indicates reducing conditions in which anaerobic, sulfide-producing bacteria are active.

The variation in soil types can create differential-aeration corrosion cells that would affect all metals.

Variation in soil resistivity of an order of magnitude or more can create differential-aeration corrosion cells that would affect all metals.

This soil is classified as severely corrosive to ferrous metals, aggressive to copper, severe for sulfate attack on concrete, and aggressive with respect to exposure of reinforcing steel to the migration of chloride.

CORROSION CONTROL RECOMMENDATIONS

The life of buried materials depends on thickness, strength, loads, construction details, soil moisture, etc., in addition to soil corrosivity, and is, therefore, difficult to predict. Of more practical value are corrosion control methods that will increase the life of materials that would be subject to significant corrosion.

Steel Pipe

Abrasive blast underground steel piping and apply a dielectric coating such as polyurethane, extruded polyethylene, a tape coating system, hot applied coal tar enamel, or fusion bonded epoxy intended for underground use.

Bond underground steel pipe with rubber gasketed, mechanical, grooved end, or other nonconductive type joints for electrical continuity. Electrical continuity is necessary for corrosion monitoring and cathodic protection.

Electrically insulate each buried steel pipeline from dissimilar metals and metals with dissimilar coatings (cement-mortar vs. dielectric), and above ground steel pipe to prevent dissimilar metal corrosion cells and to facilitate the application of cathodic protection.

Apply cathodic protection to steel piping as per NACE International Standard RP0169-2002. The amount of cathodic protection current needed can be minimized by coating the pipe.

Some steel piping systems, such as for gas and oil, have special corrosion and cathodic protection requirements that must be evaluated for each specific application.

Iron Pipe

Pressurized Pipe:

Encase pressurized cast and ductile iron piping per AWWA Standard C105, coat with epoxy or polyurethane intended for underground use, or with wax tape per AWWA C217. The thin factory-applied asphaltic coating applied to ductile iron pipe for transportation and aesthetic purposes does not constitute a corrosion control coating. Electrically insulate underground iron pipe from dissimilar metals and from above ground iron pipe with insulating joints per NACE International Standard RP0286-2002. Bond all nonconductive type joints for electrical continuity. Apply cathodic protection to cast and ductile iron piping as per NACE International Standard RP0169-2002.

Non-Pressurized Pipe (Select one of the following alternatives for protection):

1. Polyethylene encase cast- and ductile-iron piping per AWWA Standard C105. Electrically insulate underground pipe from dissimilar metals and from above ground iron pipe with insulating joints per NACE International Standard RP0286-2002. Protect all non-cast iron and non-ductile iron fittings and valves with wax tape per AWWA Standard C217-99 after assembly.
2. Apply cathodic protection to cast and ductile iron piping as per NACE International Standard RP0169-2002. The amount of cathodic protection current needed can be minimized by coating the piping.

Copper Tubing

Protect buried copper tubing by one of the following measures:

1. Prevention of soil contact. Soil contact may be prevented by routing the tubing above ground.
2. Installation of a factory coated copper pipe with a minimum of 100-mil thickness such as "Aqua Shield" or similar products. Polyethylene coating protects against elements that corrode copper and prevents contamination between copper and sleeving. However, it must be continuous with no cuts or defects if installed underground.
3. Wrapping of copper with 12-mil polyethylene pipe wrapping tape with butyl rubber mastic over a suitable primer. Protect wrapped copper tubing by applying cathodic protection per NACE International Standard RP0169-2002. The amount of cathodic protection current needed can be minimized by coating the tubing.

Plastic and Vitrified Clay Pipe

No special precautions are required for plastic and vitrified clay piping placed underground from a corrosion viewpoint. Protect all metallic fittings and valves with wax tape per AWWA Standard C217-99 or epoxy.

All Pipe

On all pipes, appurtenances, and fittings not protected by cathodic protection, coat bare metal such as valves, bolts, flange joints, joint harnesses, and flexible couplings with wax tape per AWWA Standard C217-99 after assembly.

Where metallic pipelines penetrate concrete structures such as building floors, vault walls, and thrust blocks use plastic sleeves, rubber seals, or other dielectric material to prevent pipe contact with the concrete and reinforcing steel.

Concrete

Protect concrete structures and pipe from sulfate attack in soil with a severe sulfate concentration, 0.2 to 2.0 percent. Use Type V cement, a maximum water/cement ratio of 0.45, and minimum strength of 4500 psi per applicable code, such as 1997 Uniform Building Code (UBC) Table 19-A-4 or American Concrete Institute (ACI-318) Table 4.3.1.

Standard concrete cover over reinforcing steel may be used for concrete structures and pipe in contact with these soils.

Concrete structures and pipe should be protected from acid attack where soil pH is less than 5.5. Although the analyzed samples indicate pH values greater than 5.5, the presence of active, anaerobic, sulfide-producing bacteria can, over time, decrease the pH of the soil when exposed to oxygen. In addition, a concrete structure subject to cyclical wetting and drying that occurs with a low-depth ground water table also requires protection. Concrete can be protected by preventing contact with the moisture in acidic soil. Contact can be prevented with impermeable, waterproof, acid resistant barrier coatings such as Liquid Boot®.

Protect steel and iron embedded in concrete structures and pipe from chloride attack. This applies to such items as reinforcing steel and anchor bolts but not post-tensioning strands and anchors. The protection could be one or a combination of the following:

1. Protective Concrete - A concrete mix designed to protect embedded steel and iron that should be based on the following parameters: 1) a chloride content of 2,900 ppm in the soil; 2) the desired service life; and 3) concrete cover. A protective concrete mix may include a corrosion inhibitor admixture and/or silica fume admixture.

2. Waterproof Concrete - Waterproofing for concrete could be a gravel capillary break under the concrete, a waterproof membrane, and/or a liquid applied waterproof barrier coating.

3. Coat Embedded Metal - A coating for embedded steel and iron could be an epoxy coating applied to the metal. Purple fusion bonded epoxy (FBE) (ASTM A 934) intended for prefabricated reinforcing steel reinforcing steel is suitable. The green flexible FBE (ASTM A 775) is not recommended.

4. Cathodic Protection - Cathodic protection is most practical for pipelines and must be designed for each application. The amount of cathodic protection current needed can be minimized by coating the steel or iron.

CLOSURE

Our services have been performed with the usual thoroughness and competence of the engineering profession. No other warranty or representation, either expressed or implied, is included or intended.

Please call if you have any questions.

Respectfully Submitted,
SCHIFF ASSOCIATES

Brien Clark, EIT

Reviewed by,

John W. French, P. E.

REGISTERED PROFESSIONAL ENGINEER
JOHN W. FRENCH
No. CR001028
12/21/07
CORROSION
STATE OF CALIFORNIA

Enc: Table 1

SCHIFF ASSOCIATES

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Table 1 - Laboratory Tests on Soil Samples

MACTEC
Mariners Mile Gateway
Your #4953-04-3742, MJS&A #06-0221SCS
9-Feb-06

Sample ID			5 @ 13' Siltstone (has H2S odor)	3 @ 7' Sandy ML Clay Silt	3 @ 26' Siltstone
Resistivity		**Units**			
as-received		ohm-cm	6,700	400	5,500
saturated		ohm-cm	410	400	220
pH			7.7	7.4	7.7
Electrical Conductivity		mS/cm	2.92	1.15	3.22
Chemical Analyses					
Cations					
calcium	Ca^{2+}	mg/kg	1,078	244	236
magnesium	Mg^{2+}	mg/kg	204	85	75
sodium	Na^{1+}	mg/kg	2,019	695	3,404
Anions					
carbonate	CO_3^{2-}	mg/kg	ND	ND	ND
bicarbonate	HCO_3^{1-}	mg/kg	1,364	223	1,089
chloride	Cl^{1-}	mg/kg	790	750	2,864
sulfate	SO_4^{2-}	mg/kg	5,465	1,183	3,238
Other Tests					
ammonium	NH_4^{1+}	mg/kg	17.6	10.0	17.7
nitrate	NO_3^{1-}	mg/kg	1.3	0.4	0.4
sulfide	S^{2-}	qual	Positive	Positive	Positive
Redox		mV	-87	-104	-80

Electrical conductivity in millisiemens/cm and chemical analysis were made on a 1:5 soil-to-water extract.
mg/kg = milligrams per kilogram (parts per million) of dry soil.
Redox = oxidation-reduction potential in millivolts
ND = not detected
na = not analyzed

PRIOR TEST PITS BY MACTEC (2005)

Project No. 4953-04-3741 Drafter: JMcK CHKD. 1/6/05

LOG OF TEST PIT NO. 4

Project: 4953-04-3741
Geologist: K. Rice/J. McKeown

Description	Attitudes
Elevation: 43 feet	
Outcrop exposure	
0' – 1'0": Capistrano Formation (Tc) – SILTSTONE, laminated to thinly bedded shale, sandstone laminae (to ¼" thick), fissile,	B: N80W, 11NE
moderately weathered, fossiliferous, gray to yellowish brown.	

LOG OF TEST PIT NO. 5

Project: 4953-04-3741
Geologist: K. Rice/J. McKeown

Description	Attitudes
Elevation: 35 feet	
Vegetation on surface	
0' – 2'6": Colluvium (Qcol) – SAND, fine- to medium-grained, some silt, micaceous, few weathered siltstone fragments, light brown.	

Project No. 4953-04-3741 Drafter: JMcK CHKD. 1/6/05

LOG OF TEST PIT NO. 6

Project: 4953-04-3741
Geologist:K. Rice/J. McKeown

Description	Attitudes
Elevation: 20 feet	
Vegetation on surface	
0' – 2'0": Colluvium (Qcol) – SILTY SAND/SANDY SILT, light brown, slightly moist.	
2'0" – 4'0': Recent Marine Deposits (Qm) – SAND, fine- to medium-grained, micaceous, massive, light brown.	

LOG OF TEST PIT NO. 7

Project: 4953-04-3741
Geologist: K. Rice/J. McKeown

Description	Attitudes
Elevation: 35 feet	
Vegetation on surface	
0' – 2'6": Colluvium (Qcol) – SILTY SAND, fine- to medium-grained, light brown to brown.	
2'6" – 3'0': Capistrano Formation (Tc) – SILTSTONE, laminated to poorly bedded, moderately bedded, gray to yellowish brown.	B: N80E, 06NW

MACTEC

Project No. 4953-04-3741 Drafter: JMcK CHKD. 1/6/05

LOG OF TEST PIT NO. 10	Project: 4953-04-3741 Geologist:K. Rice/J. McKeown
Description	Attitudes
Elevation: 30 feet	
Vegetation on surface	
0' – 1'6": Colluvium (Qcol) – SAND, fine- to medium-grained, micaceous, light brown.	
1'6" – 3'6": Capistrano Formation (Tc) – SILTSTONE, laminated to thinly bedded shale, locally with fine-grained sandstone interbeds, light gray to yellowish brown.	B: N70E, 07NW

LOG OF TEST PIT NO. 11	Project: 4953-04-3741 Geologist: K. Rice/J. McKeown
Description	Attitudes
Elevation: 26 feet	
Vegetation of surface	
0' – 2'6": Colluvium (Qcol) – SILTY SAND, fine- to medium-grained, brown, abundant roots (to 2" in size).	
2'6" – 3'0": Capistrano Formation (Tc) – SILTSTONE, clayey, moist, brown.	

APPENDIX B

PREVIOUS EXPLORATIONS AND LABORATORY TESTS BY KRAZAN

Log of Boring B - 1

Project: Proposed Commercial Development, Newport Beach
Client: Allied Retail
Location 200 - 600 Pacific Coast Hwy./Dover Dr.
Depth of Water> 12 feet **Initial:**

Project No. 11203090
Figure No. A - 1
Logged By: PC
At Completion:

SUBSURFACE PROFILE				SAMPLE					
Depth (ft)	Symbol	USCS	GEOTECHNICAL DESCRIPTION	Dry Density (pcf)	Moisture (%)	Type	Recovery	Blows/Foot	Water Level
	░		Top 4" Asphalt Pavement						
	░	SM/ SP	SILTY SAND/SAND, light yellowish brown, moist, loose, fine to medium grain, (beach sand)						
5	░								
	▥	ML	CLAYEY SILT, dark gray, very wet, soft						
10	▥		same as above	69.8	54.8	MCS	■	5	
	▥								▼
	▥		@11'-14' SAND, light grayish brown, wet, loose, w/ much gravels & rocks						
15	▥		CLAYEY SILT, dark grey, very wet, soft (SILTSTONE at bottom)	69.6	50.5	MCS	■	50/11"	
			Refusal at 16ft.						
			Total Depth = 16ft						
			Groundwater encountered at 12 feet						
20			Hole backfilled with soil cuttings, tamped and patched on 12/16/03						
25									

Krazan & Associates, Inc.

Drill Rig: Mobile 57
Drill Method: Hollow Stem Auger
Driller: Al-Roy Drilling

Drill Date: 12/16/03
Hole Size: 8"
Sheet: 1 of 1

Log of Boring B - 2

Project: Proposed Commercial Development, Newport Beach
Project No. 1 1 2 0 3 0 9 0
Client: Allied Retail
Figure No. A - 2
Location 200 - 600 Pacific Coast Hwy./Dover Dr.
Logged By: PC
Depth of Water> 10 ft **Initial:**
At Completion:

SUBSURFACE PROFILE				SAMPLE					
Depth (ft)	Symbol	USCS	**GEOTECHNICAL DESCRIPTION**	Dry Density (pcf)	Moisture (%)	Type	Recovery	Blows/Foot	Water Level
	▒		Top 4" Asphalt Pavement						
	▒	SM/ SP	SILTY SAND/SAND, dark reddish brown, moist, loose, fine to medium grain, (beach sand, poorly graded)						
5	▒		same as above, w/ little clay	108.8	15.2	MCS	■	12	
	▒		@7-8' gravelly rocks						
	▥	ML	CLAYEY SILT, dark gray, very wet, soft						
10	▥			61.6	57.6	MCS	■	9	▼
			Refusal at 13ft below ground level						
15									
			Total Depth = 13ft Groundwater encountered at 10 feet Hole backfilled with soil cuttings, tamped and patched on 12/16/03						
20									
25									

Krazan & Associates, Inc.

Drill Rig: Mobile 57
Drill Date: 12/16/03
Drill Method: Hollow Stem Auger
Hole Size: 8"
Driller: Al-Roy Drilling
Sheet: 1 of 1

Log of Boring B - 3

Project:	Proposed Commercial Development, Newport Beach	**Project No.**	11203090
Client:	Allied Retail	**Figure No.**	A - 3
Location	200 - 600 Pacific Coast Hwy./Dover Dr.	**Logged By:**	PC
Depth of Water>	10.5 ft **Initial:**	**At Completion:**	

SUBSURFACE PROFILE				SAMPLE					
Depth (ft)	Symbol	USCS	**GEOTECHNICAL DESCRIPTION**	Dry Density (pcf)	Moisture (%)	Type	Recovery	Blows/Foot	Water Level
	▨		Top 4" Asphalt Pavement						
	▨	SM/ SP	SILTY SAND/SAND, dark reddish brown, moist, loose, fine to medium grain, (beach sand, poorly graded)						
5	▨		same as above, w/ little clay, mild odor dark gray/black, strong odor at 6'-8'	111.3	16.2	MCS	■	14	
10	▥	ML	CLAYEY SILT, dark gray spotted white, wet, stiff (SILTSTONE at bottom)	83.6	40.0	MCS	■	35	▼
			Refusal at 12ft below ground level						
15									
			Total Depth = 12ft Groundwater encountered at 10.5 feet Hole backfilled with soil cuttings, tamped and patched on 12/16/03						
20									
25									

Krazan & Associates, Inc.

Drill Rig:	Mobile 57	Drill Date:	12/16/03
Drill Method:	Hollow Stem Auger	Hole Size:	8"
Driller:	Al-Roy Drilling	Sheet:	1 of 1

Log of Boring B - 4

Project: Proposed Commercial Development, Newport Beach **Project No.** 11203090
Client: Allied Retail **Figure No.** A - 4
Location 200 - 600 Pacific Coast Hwy./Dover Dr. **Logged By:** PC
Depth of Water> 11 ft **Initial:** **At Completion:**

SUBSURFACE PROFILE				SAMPLE					
Depth (ft)	Symbol	USCS	GEOTECHNICAL DESCRIPTION	Dry Density (pcf)	Moisture (%)	Type	Recovery	Blows/Foot	Water Level
			Top 4" Asphalt Pavement						
		SP	SAND, light yellowish brown, moist, loose,						
			fine to medium grain, (beach sand, poorly graded)						
5			same as above, slightly clayey, med. dense	96.5	2.7	MCS	■	26	
			light odor at 8' - 10'						
10		ML	CLAYEY SILT, dark grey spotted white, wet, stiff(SILTSTONE at bottom)	77.9	40.7	MCS	■	53/7"	▼
			Refusal at 11ft below ground level						
15									
			Total Depth = 11ft						
			Groundwater encountered at bottom of borehole						
20			Hole backfilled with soil cuttings, tamped and patched on 12/16/03						
25									

Krazan & Associates, Inc.

Drill Rig: Mobile 57 **Drill Date:** 12/16/03
Drill Method: Hollow Stem Auger **Hole Size:** 8"
Driller: Al-Roy Drilling **Sheet:** 1 of 1

Log of Boring B - 5

Project: Proposed Commercial Development, Newport Beach
Client: Allied Retail
Location 200 - 600 Pacific Coast Hwy./Dover Dr.
Depth of Water> 11 ft **Initial:**

Project No. 11203090
Figure No. A - 5
Logged By: PC
At Completion:

SUBSURFACE PROFILE				SAMPLE					
Depth (ft)	Symbol	USCS	GEOTECHNICAL DESCRIPTION	Dry Density (pcf)	Moisture (%)	Type	Recovery	Blows/Foot	Water Level
	▒		Top 4" Asphalt Pavement						
	▒	SP	SAND, light reddish brown, moist, loose, fine to medium grain,.(beach sand, poorly graded)						
5	▒		same as above, slightly clayey, med. Dense, light yellowish brown	122.5	2.9	MCS	■	18	
	▥	ML	CLAYEY SILT, dark gray spotted white, wet, firm						
10	▥		same as above, SILTSTONE at bottom	88.2	43.6	MCS	■	31	▼
			Refusal at 11ft below ground level						
15									
			Total Depth = 11ft Hole backfilled with soil cuttings, tamped and patched on 12/16/03						
20									
25									

Krazan & Associates, Inc.

Drill Rig: Mobile 57
Drill Method: Hollow Stem Auger
Driller: Al-Roy Drilling

Drill Date: 12/16/03
Hole Size: 8"
Sheet: 1 of 1

Log of Boring B - 6

Project: Proposed Commercial Development, Newport Beach
Project No. 11203090
Client: Allied Retail
Figure No. A - 6
Location 200 - 600 Pacific Coast Hwy./Dover Dr.
Logged By: PC
Depth of Water> 11 ft
Initial:
At Completion:

SUBSURFACE PROFILE				SAMPLE					
Depth (ft)	Symbol	USCS	GEOTECHNICAL DESCRIPTION	Dry Density (pcf)	Moisture (%)	Type	Recovery	Blows/Foot	Water Level
			Top 4" Asphalt Pavement						
		SM	SILTY SAND, light reddish brown, moist, loose, fine to medium grain, (beach sand)						
5			same as above, slightly clayey, med. dense, light yellowish brown						
			CLAYEY SILT, dark gray spotted white, wet, stiff						
10		ML	same as above	110.1	17.1	MCS	■	28	▼
15			same as above, (SILTSTONE at bottom)	76.3	43.0	MCS	■	50/8"	
			Refusal at 15ft.						
			Total Depth = 15ft						
			Groundwater encountered at 11ft						
20			Hole backfilled with soil cuttings, tamped and patched on 12/16/03						
25									

Krazan & Associates, Inc.

Drill Rig: Mobile 57
Drill Date: 12/16/03
Drill Method: Hollow Stem Auger
Hole Size: 8"
Driller: Al-Roy Drilling
Sheet: 1 of 1

Log of Boring B - 8

Project: Proposed Commercial Development, Newport Beach
Project No. 1 1 2 0 3 0 9 0
Client: Allied Retail
Figure No. A - 8
Location 200 - 600 Pacific Coast Hwy./Dover Dr.
Logged By: PC
Depth of Water> 11 ft **Initial:**
At Completion:

SUBSURFACE PROFILE				SAMPLE					
Depth (ft)	Symbol	USCS	**GEOTECHNICAL DESCRIPTION**	Dry Density (pcf)	Moisture (%)	Type	Recovery	Blows/Foot	Water Level
			Top 4" Asphalt Pavement						
		SM	SILTY SAND, light yellowish brown, moist, loose, fine to coarse grain, (beach sand)						
5			same as above	107.5	9.5	MCS	■	11	
			CLAYEY SILT, dark brown, wet, firm						
10		ML	same as above	74.3	46.4	MCS	■	10	▼
			same as above	68.8	52.3	MCS	■	50/10"	
15			Refusal at 14ft						
			Total Depth = 14ft						
			Groundwater encountered at 11ft						
20			Hole backfilled with soil cuttings, tamped and patched on 12/17/03						
25									

Krazan & Associates, Inc.

Drill Rig: Mobile 57
Drill Date: 12/17/03
Drill Method: Hollow Stem Auger
Hole Size: 8"
Driller: Al-Roy Drilling
Sheet: 1 of 1

Log of Boring B - 11

Project: Proposed Commercial Development, Newport Beach
Project No. 11203090
Client: Allied Retail
Figure No. A - 11
Location 200 - 600 Pacific Coast Hwy./Dover Dr.
Logged By: PC
Depth of Water> **Initial:** **At Completion:**

SUBSURFACE PROFILE				SAMPLE					
Depth (ft)	Symbol	USCS	GEOTECHNICAL DESCRIPTION	Dry Density (pcf)	Moisture (%)	Type	Recovery	Blows/Foot	Water Level
			Top 4" Asphalt Pavement						
		SM/ SP	SILTY SAND/SAND, light yellowish brown, moist, loose						
5		ML	SILTY CLAY, dark gray, stiff, moist						
			Much shell fragments below 6'						
10			same as above, firm	62.6	59.2	MCS	■	26	
		SP	SAND, dark gray spotted white, dense, wet (SILTSTONE at bottom)	105.8	21.9	MCS	■	45/7"	
			Refusal at 13ft.						
15									
			Total Depth = 13ft						
			Hole backfilled with soil cuttings, tamped and patched on 12/17/03						
20									
25									

Krazan & Associates, Inc.

Drill Rig: Mobile 57
Drill Date: 12/17/03
Drill Method: Hollow Stem Auger
Hole Size: 8"
Driller: Al-Roy Drilling
Sheet: 1 of 1

Expansion Index Test

ASTM D - 4829/ UBC Std. 18-2

Project Number	: 112-03090
Project Name	: Prop. Comm. Devp.
Date	: 12/19/03
Sample location/ Depth	: B-5 @ 10'
Sample Number	: 1
Soil Classification	: (ML), Clayey Silt

Trial #	**1**	**2**	**3**
Weight of Soil & Mold, gms	523.9		
Weight of Mold, gms	185.3		
Weight of Soil, gms	338.6		
Wet Density, Lbs/cu.ft.	102.1		
Weight of Moisture Sample (Wet), gms	300.0		
Weight of Moisture Sample (Dry), gms	246.6		
Moisture Content, %	21.7		
Dry Density, Lbs/cu.ft.	83.9		
Specific Gravity of Soil	2.7		
Degree of Saturation, %	58.1		

Time	Inital	30 min	1 hr	6hrs	12 hrs	24 hrs
Dial Reading	--	--	--	--	--	0.082

Expansion Index $_{\text{measured}}$ = 82

Expansion Index $_{50}$ = 89.3

Expansion Index = 89

Expansion Potential Table	
Exp. Index	Potential Exp.
0 - 20	Very Low
21 - 50	Low
51 - 90	Medium
91 - 130	High
>130	Very High

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Expansion Index Test

ASTM D - 4829/ UBC Std. 18-2

Project Number : 112-03090
Project Name : Prop. Comm. Devp.
Date : 12/19/03
Sample location/ Depth : B-11 @ 10'
Sample Number : 2
Soil Classification : (ML), Clayey Silt

Trial #	1	2	3
Weight of Soil & Mold, gms	482.8		
Weight of Mold, gms	170.9		
Weight of Soil, gms	311.9		
Wet Density, Lbs/cu.ft.	94.1		
Weight of Moisture Sample (Wet), gms	300.0		
Weight of Moisture Sample (Dry), gms	234.7		
Moisture Content, %	27.8		
Dry Density, Lbs/cu.ft.	73.6		
Specific Gravity of Soil	2.7		
Degree of Saturation, %	58.3		

Time	Inital	30 min	1 hr	6hrs	12 hrs	24 hrs
Dial Reading	--	--	--	--	--	0.085

Expansion Index $_{\text{measured}}$ = 85
Expansion Index $_{50}$ = 92.7

Expansion Index = 93

Expansion Potential Table	
Exp. Index	Potential Exp.
0 - 20	Very Low
21 - 50	Low
51 - 90	Medium
91 - 130	High
>130	Very High

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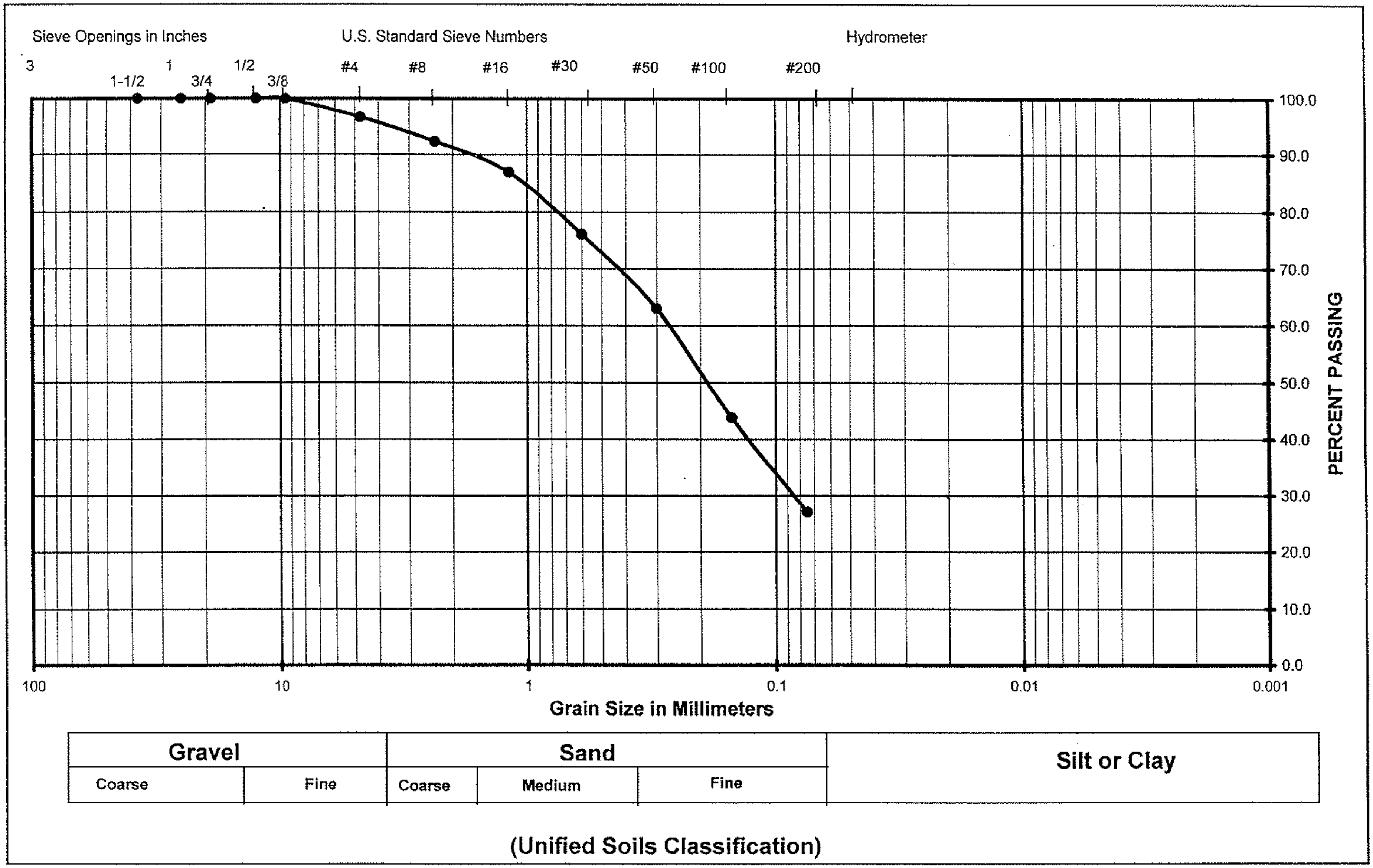
Grain Size Analysis



Project Name	Prop. Comm. Devp.
Project Number	112-03090
Soil Classification	(SM), Silty Sand w/ Little Clay
Sample Number	B-3 @ 5'

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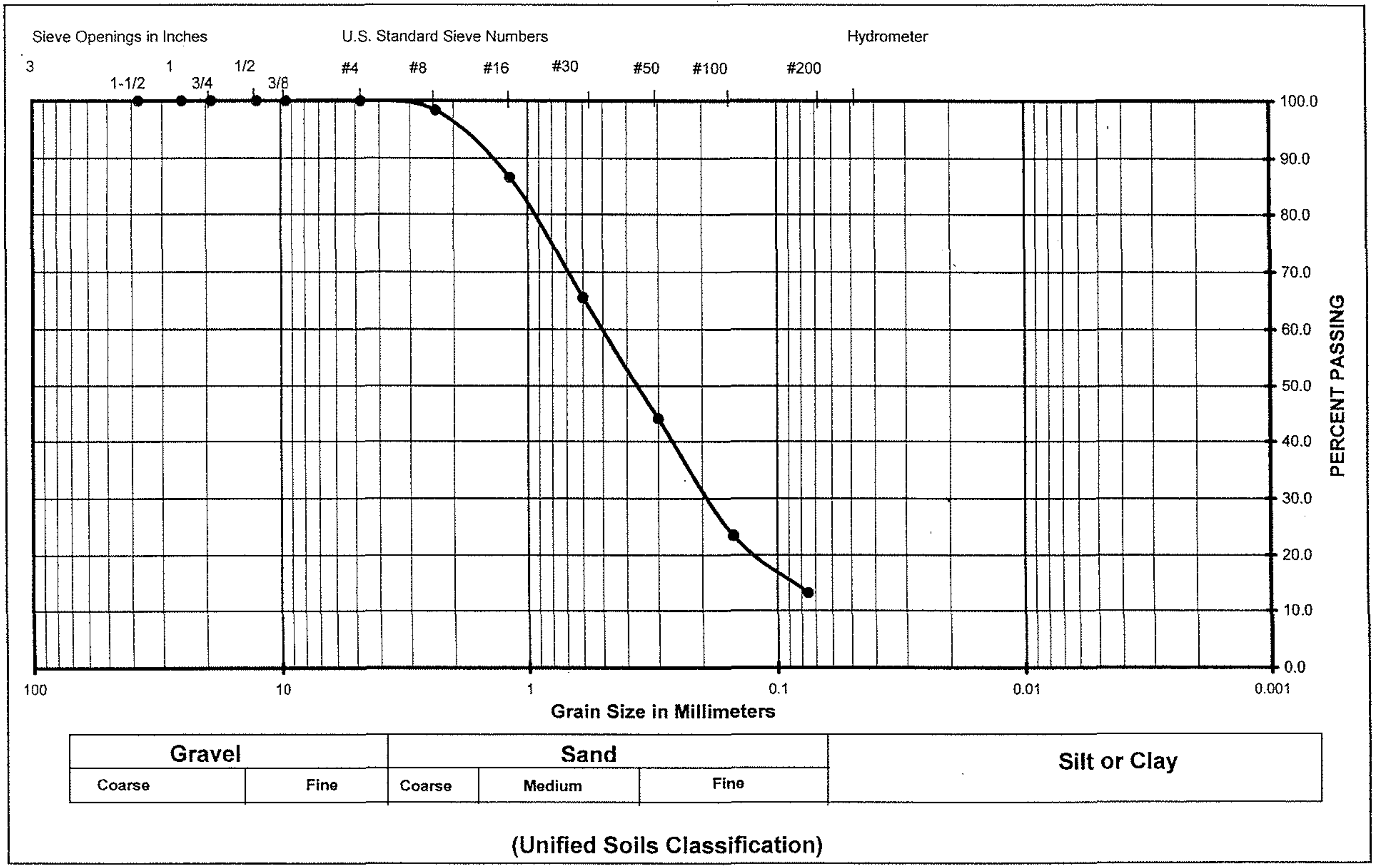
Grain Size Analysis



Project Name	Prop. Comm. Devp.
Project Number	112-03090
Soil Classification	(SM), Silty Sand
Sample Number	B-6 @ 10'

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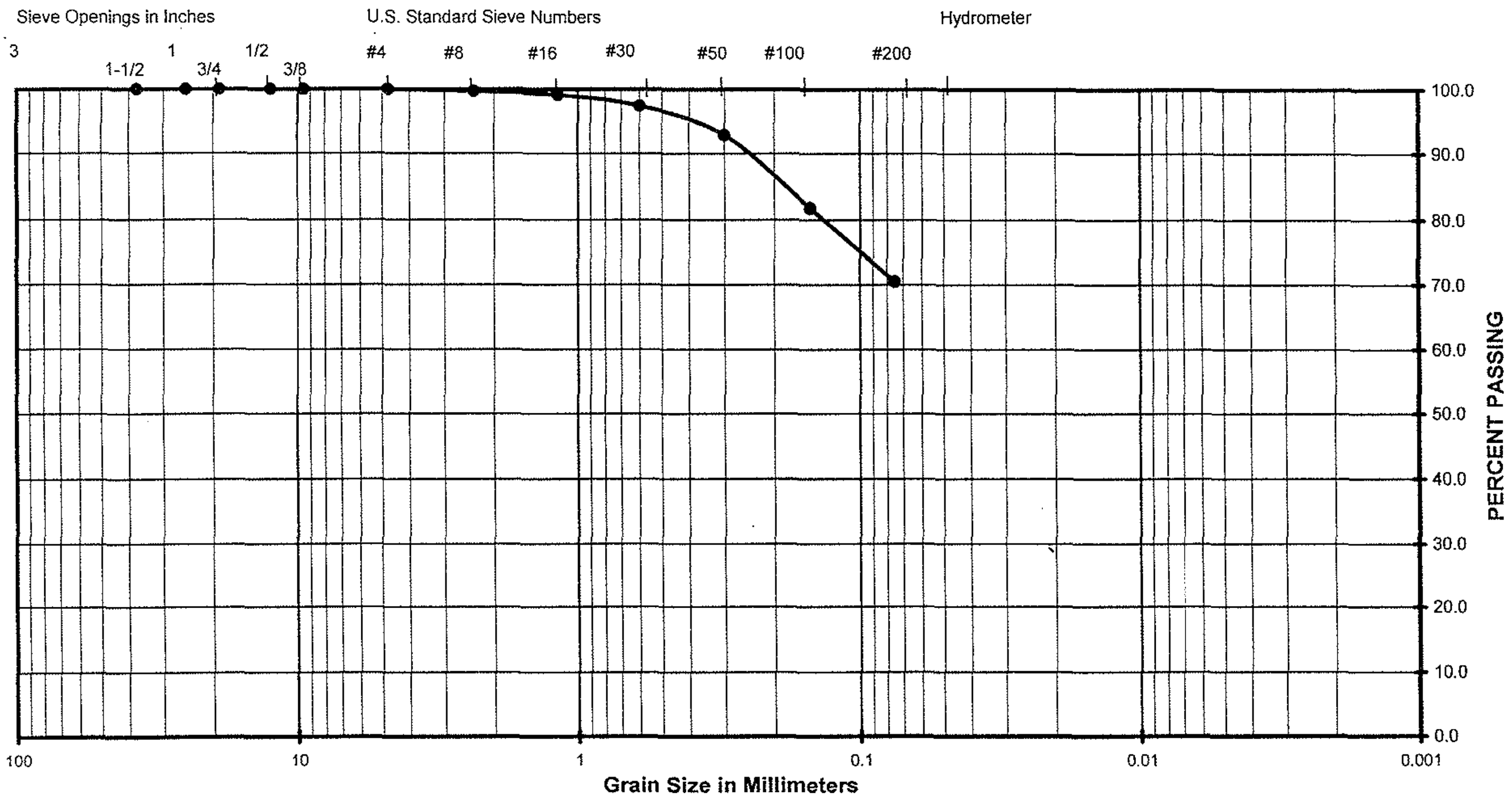
Grain Size Analysis



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

(Unified Soils Classification)

Project Name	Prop. Comm. Devp.
Project Number	112-03090
Soil Classification	(ML), Clayey Silt
Sample Number	B-8 @ 10'

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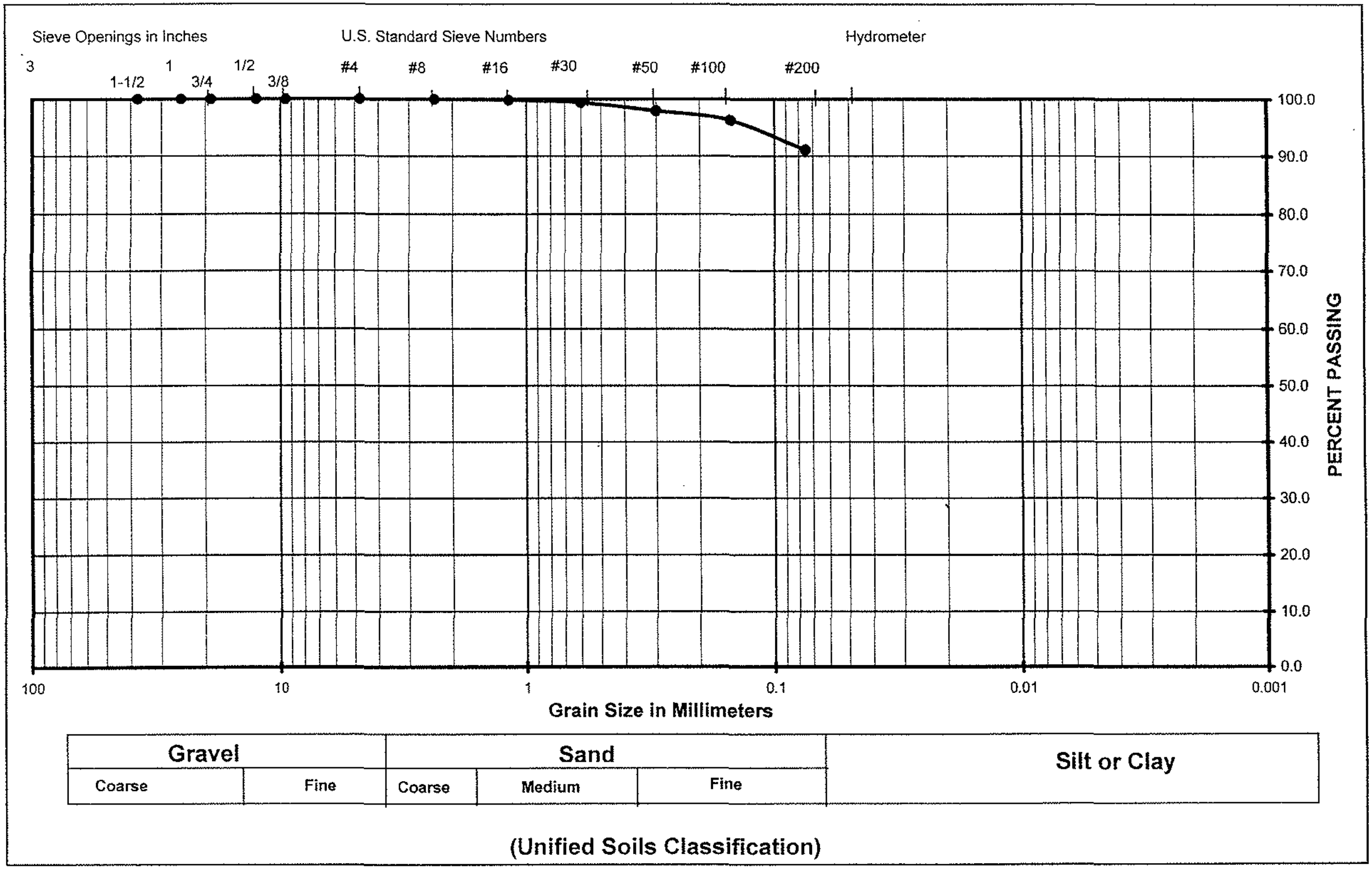
Grain Size Analysis



Project Name	Prop. Comm. Devp.
Project Number	112-03090
Soil Classification	(ML), Clayey Silt
Sample Number	B-11 @ 10'

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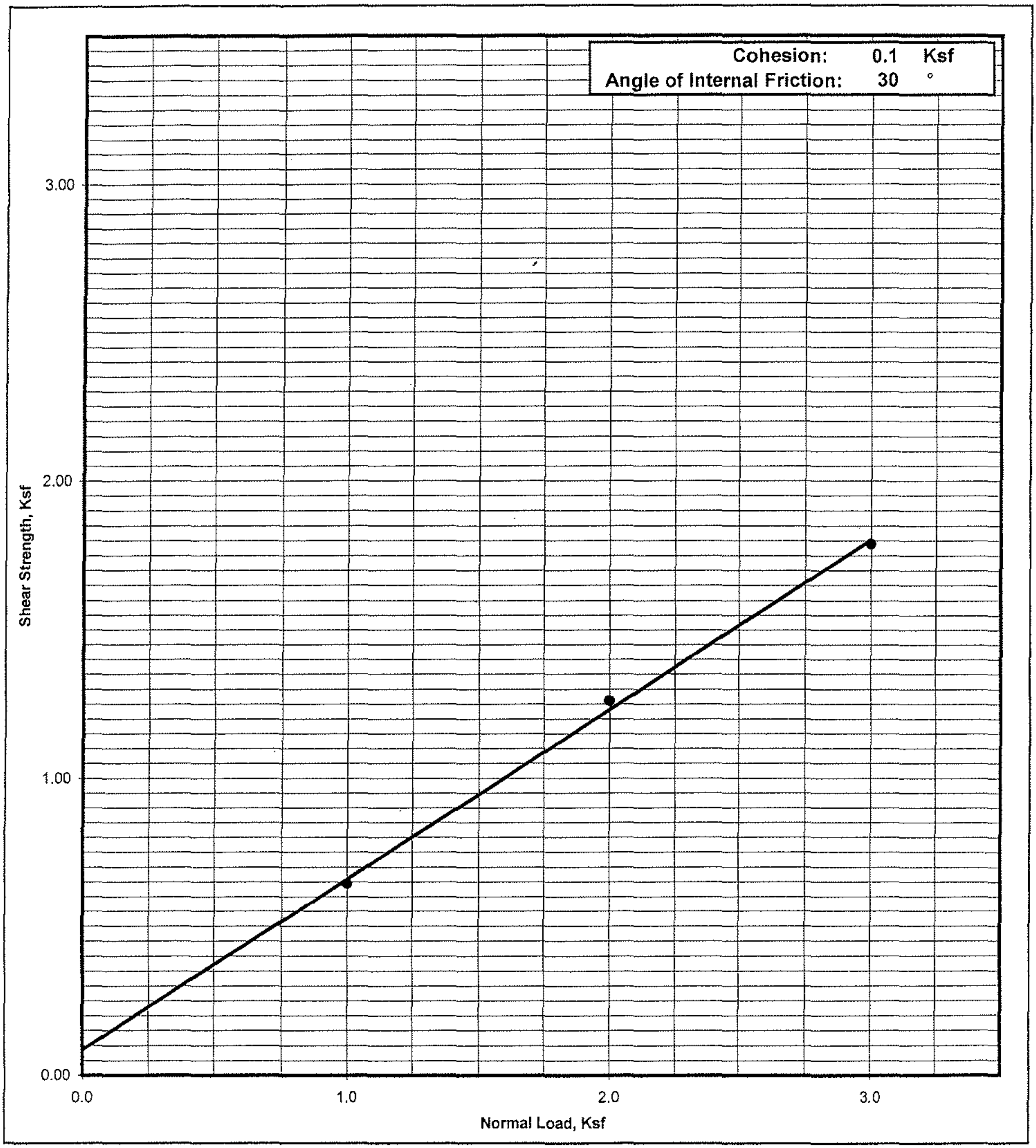
Shear Strength Diagram (Direct Shear)

ASTM D - 3080 / AASHTO T - 236

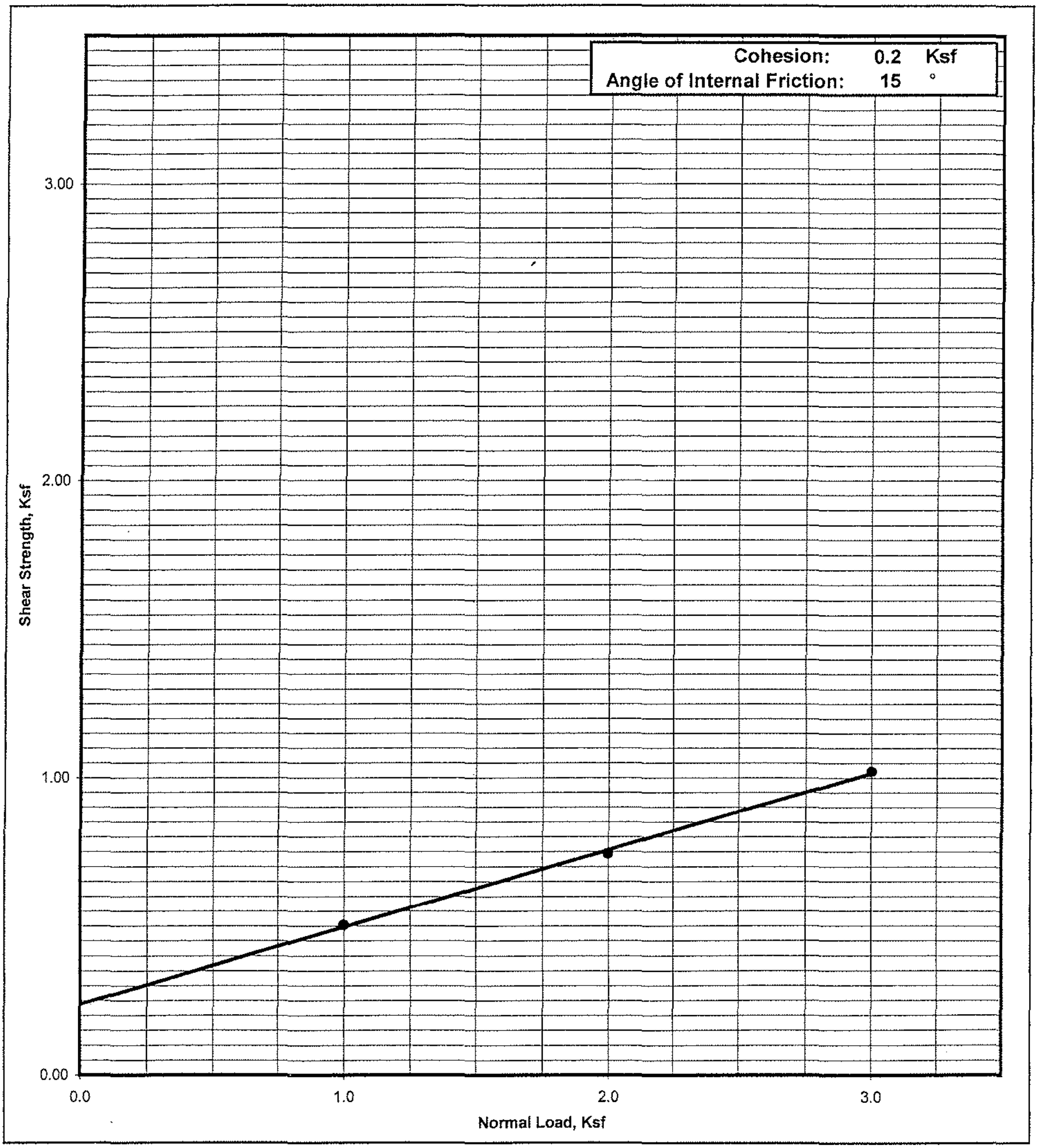
Project Number	Boring No. & Depth	Soil Type	Date
112-03090	B-2 @ 5'	(SM), Silty Sand w/Trace Clay	1/6/04



Krazan Testing Laboratory

Shear Strength Diagram (Direct Shear)
ASTM D - 3080 / AASHTO T - 236

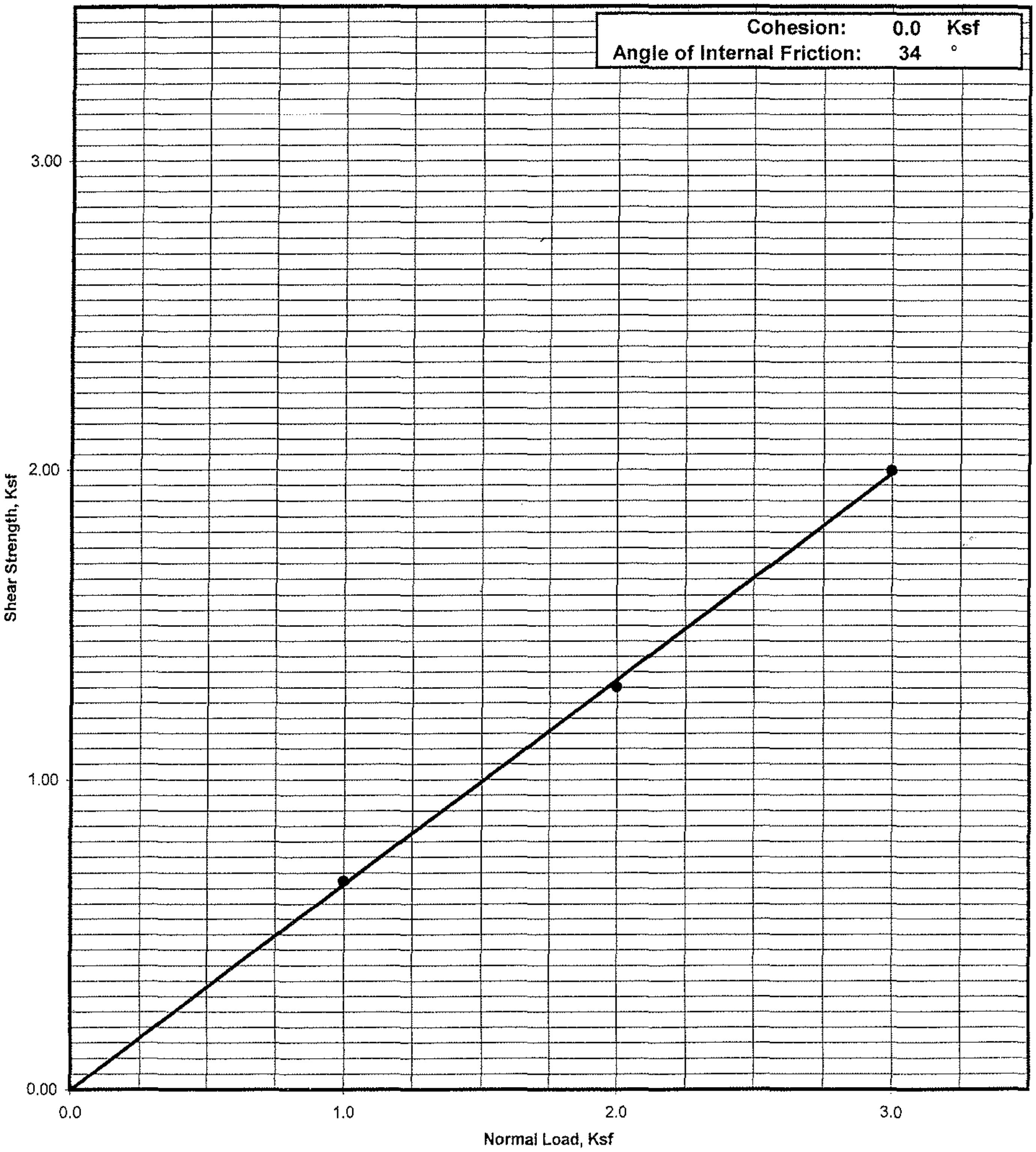
Project Number	Boring No. & Depth	Soil Type	Date
12-03090	B-2 @ 10'	(ML), Clayey Silt	12/22/03



Krazan Testing Laboratory

Shear Strength Diagram (Direct Shear)
ASTM D - 3080 / AASHTO T - 236

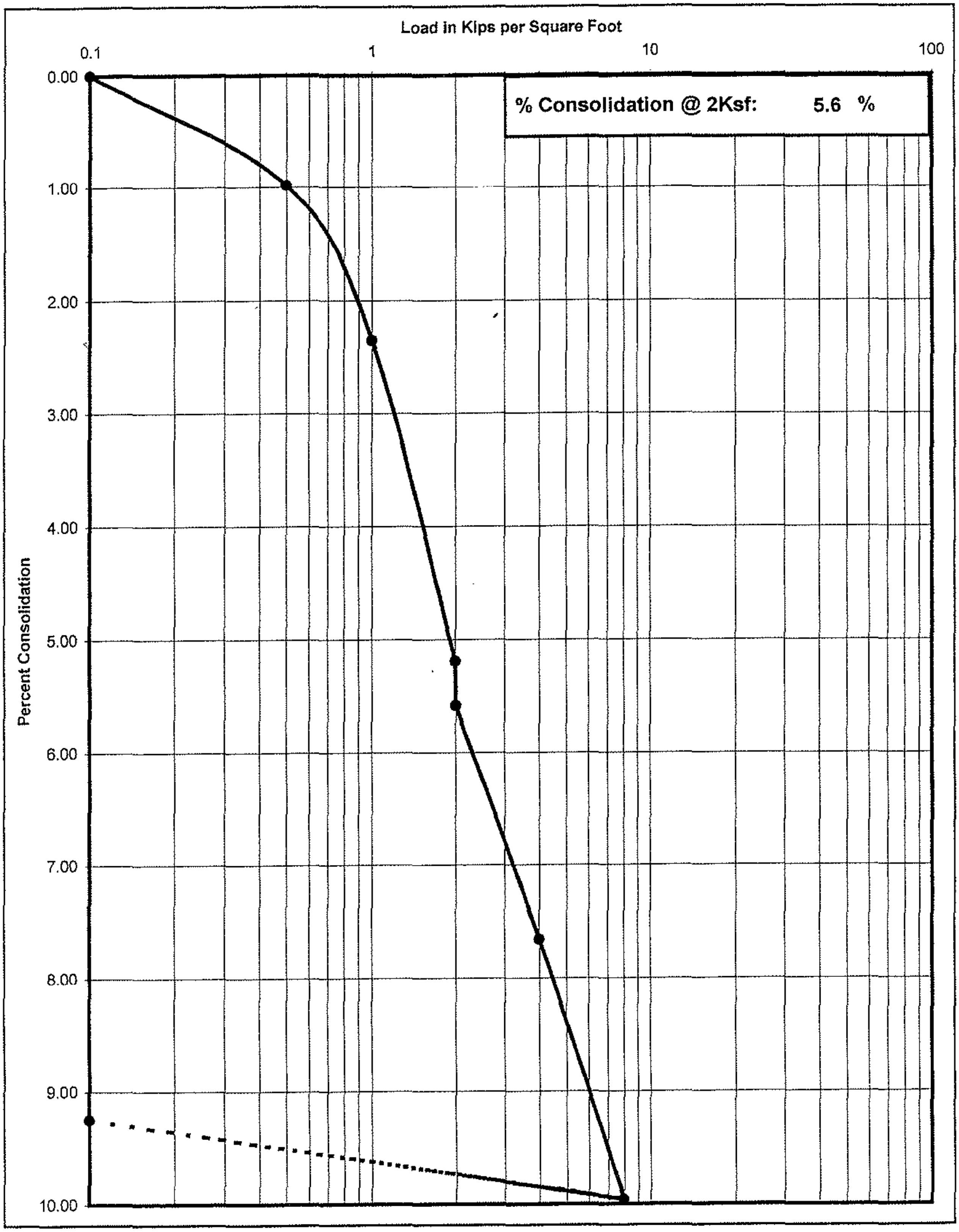
Project Number	Boring No. & Depth	Soil Type	Date
112-03090	B-4 @ 5'	(SP), Sand	1/6/04



Krazan Testing Laboratory

Consolidation Test

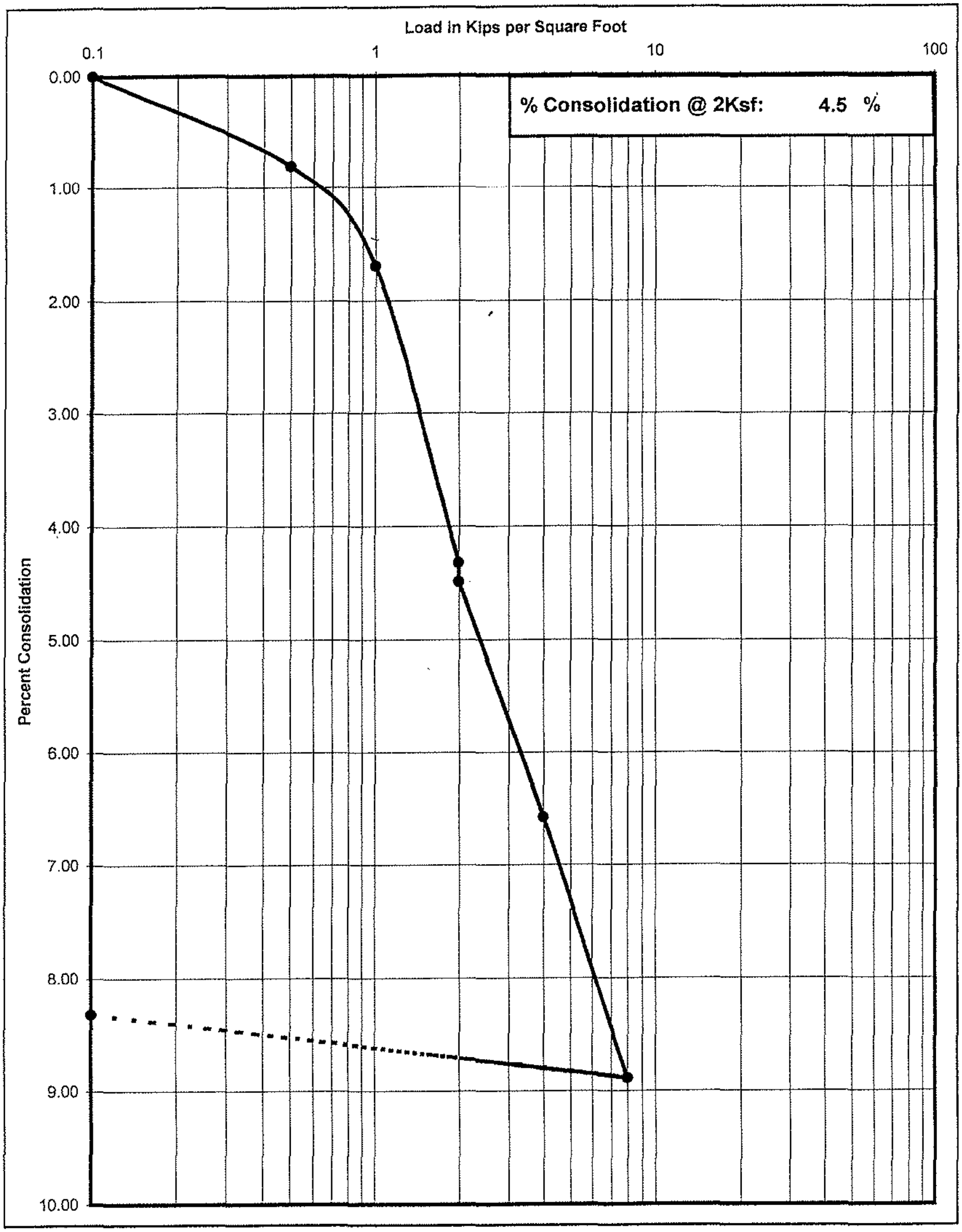
Project No	Boring No. & Depth	Date	Soil Classification
112-03090	B-1 @ 10'	12/18/03	(ML), Clayey Silt



Krazan Testing Laboratory

Consolidation Test

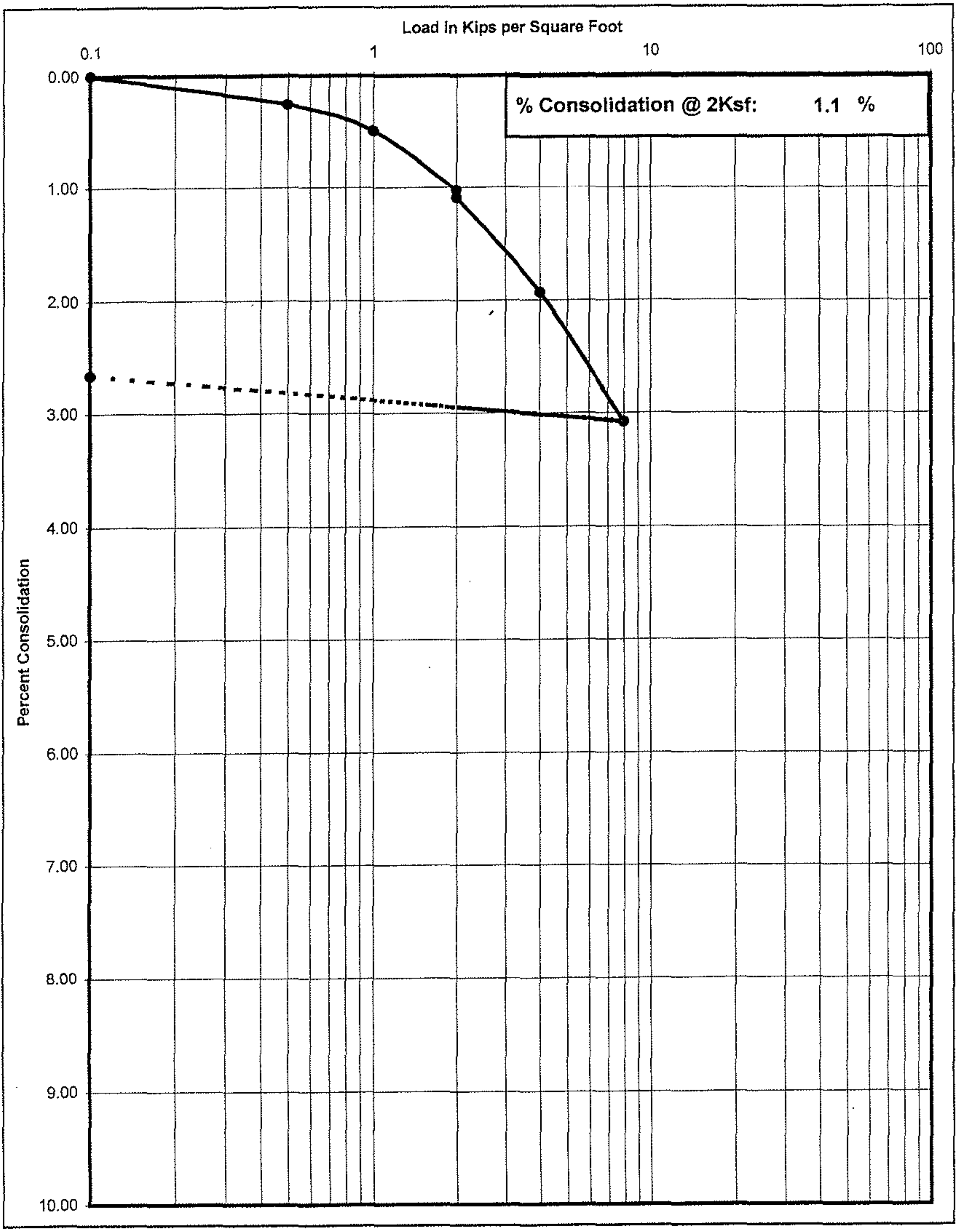
Project No	Boring No. & Depth	Date	Soil Classification
112-03090	B-5 @ 10'	12/19/03	(ML), Clayey Silt



Krazan Testing Laboratory

Consolidation Test

Project No	Boring No. & Depth	Date	Soil Classification
112-03090	B-11 @ 13'	12/22/03	(SP), Sand



Krazan Testing Laboratory

Sub-Appendix E2

Retaining Wall Geotechnical Study

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MACTEC
engineering and constructing a better tomorrow

July 1, 2010

Mr. Tod Ridgeway
VBAS Properties
1775 B Newport Boulevard
Costa Mesa, California 92627

Subject: **Preliminary Geotechnical Consultation**
Proposed Mariner's Pointe Retaining Wall
Northwest Corner of Dover Drive and West Coast Highway
Newport Beach, California
MACTEC Project 4953-10-0881

Dear Mr. Ridgeway:

This letter provides preliminary geotechnical consultation for the proposed retaining wall as part of the Mariner's Pointe development. We have been provided information on the proposed retaining wall by your design consultants. MACTEC performed geotechnical investigations previously at the site for the proposed Bel Mare Retail Development that was not constructed (MACTEC Project 4953-04-3741 through 3743). We also reviewed the prior geotechnical report by Krazen, dated January 5, 2004 prepared for the project site. This preliminary letter presents foundation recommendations for the proposed retaining wall.

The proposed retaining wall will range from a few feet to up to 14 feet in height. The wall is planned along the northern property line, which will extend onto the adjoining property to the west.

Several borings from the previous investigations by MACTEC and Krazen are considered applicable for this current project.

SOIL CONDITIONS

As encountered within our borings and test pits and in Krazan's borings, the earth materials consist of recent marine deposits, colluvium, and siltstone bedrock of the Capistrano formation. The recent marine deposits occupy the lower, more level portions of the site and consist of silty sand, silt, clayey silt, sandy silt and silty clay extending to depths ranging from 8 to 15 feet below the existing ground surface. The Capistrano formation, which consists of siltstone, clayey siltstone, and diatomaceous siltstone, underlies the recent marine deposits and is locally exposed on the slopes. The colluvium consists of silty sand and sand with some siltstone fragments and locally mantles the slope.

Fill soils, up to 1 foot thick, were encountered in one of the prior borings near the proposed retaining wall. Deeper fill soils may be found elsewhere at the site.

Ground water, where encountered, was measured between 8 and 11 feet below the ground surface in the prior borings near the proposed retaining wall.

PRELIMINARY RECOMMENDATIONS FOR PROPOSED RETAINING WALL

The proposed retaining wall is planned along the north property line, near the base of the existing slope. The proposed wall will retain up to 14 feet of earth materials. The slope of the retained earth materials may be as steep as 1½ to 1 (horizontal to vertical). The proposed retaining wall may be supported on a spread footing foundation. As an alternative, the proposed retaining wall may be supported on drilled piles using soldier piles as the foundation element. If soldier piles are used, the retaining wall may be cantilever or tied-back with earth anchors. Another alternative would be to install a soil nail wall. Recommendations are provided below.

Wall Supported on Spread Footings

The proposed retaining wall may be supported on shallow spread foundations. Because of the existing slope and the site topography, it is likely that the earth materials beneath the retaining wall will vary along the length of the wall. For the eastern portion of the wall where the retained height will be small, it is anticipated that the recent marine deposits (soil) will be encountered within the footing excavation, and there may be a transition between the recent marine deposits and the Capistrano formation materials that are found in the slope. For the western portion of the wall, the earth materials encountered at the foundation level may be entirely within the Capistrano formation.

In the eastern portion, where the recent marine deposits are more likely to be encountered, the proposed retaining wall may be supported on spread footings underlain by a minimum of 2-foot layer of properly compacted fill soils that extends at least 2 feet below the lowest adjacent grade; the footings may be designed to impose a maximum net dead-plus-live load pressure of 2,500 pounds per square foot.

In the western portion, where the Capistrano formation deposits are more likely to be encountered, the proposed retaining wall may be supported on spread footings established at a depth of 2 feet below the lowest adjacent grade in the undisturbed Capistrano formation materials; the footings may be designed to impose a maximum net dead-plus-live load pressure of 5,000 pounds per square foot. The excavations should be deepened as necessary to extend into satisfactory soils.

To determine the appropriate foundation conditions for the proposed retaining wall, shallow pits may be excavated to determine the presence or absence of the recent marine deposits at various locations along the proposed wall.

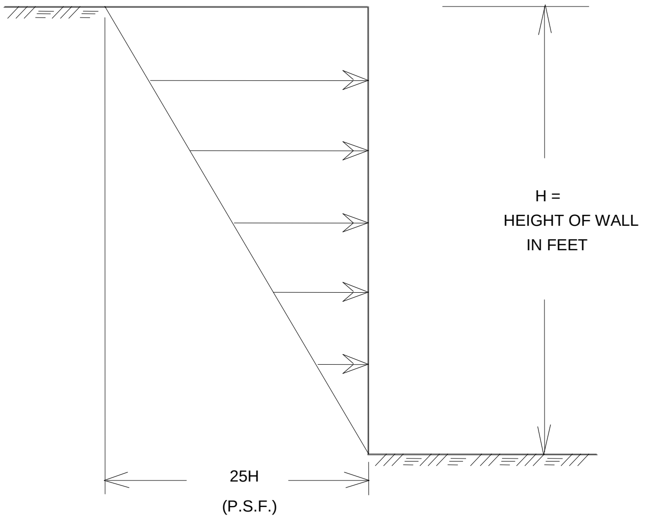
A one-third increase can be used for wind or seismic loads. The recommended bearing value is a net value, and the weight of concrete in the footings can be taken as 50 pounds per cubic foot; the weight of soil backfill can be neglected when determining the downward loads.

We estimate the settlement of the retaining wall, supported on spread footings in the manner recommended, will be less than ½ inch.

Lateral loads can be resisted by soil friction and by the passive resistance of the soils. A coefficient of friction of 0.4 can be used between the footings and the supporting soils. The passive resistance of natural soils or properly compacted fill soils can be assumed to be equal to the pressure developed by a fluid with a density of 300 pounds per cubic foot. A one-third increase in the passive value can be used for wind or seismic loads. The frictional resistance and the passive resistance of the soils can be combined without reduction in determining the total lateral resistance.

For design of cantilevered retaining walls, where the surface of the backfill is level, it can be assumed that drained soils will exert a lateral pressure equal to that developed by a fluid with a density of 30 pounds per cubic foot. In addition to the recommended earth pressure, the walls should be designed to resist any applicable surcharges due to storage or traffic loads. For retaining walls where the backfill has a 1½:1 (horizontal to vertical) inclination, it can be assumed that drained soils will exert a lateral pressure equal to that developed by a fluid with a density of 50 pounds per cubic foot.

In addition to the above-mentioned lateral earth pressures, retaining walls more than 12 feet high should be designed to support a seismic active pressure. The recommended seismic active pressure distribution on the wall is illustrated in the following diagram with the maximum pressure equal to 25H pounds per square foot, where H is the wall height in feet.



Retaining walls should be designed to resist hydrostatic pressures or be provided with a drain pipe or weepholes. The drain could consist of a 4-inch-diameter perforated pipe placed with perforations down at the base of the wall. The pipe should be sloped at least 2 inches in 100 feet and surrounded by filter gravel. The filter gravel should meet the requirements of Class 2 Permeable Material as defined in the current State of California, Department of Transportation, Standard Specifications. If Class 2 Permeable Material is not available, ¾-inch crushed rock or gravel separated from the on-site soils by an appropriate filter fabric can be used. The crushed rock or gravel should have less than 5% passing a No. 200 sieve.

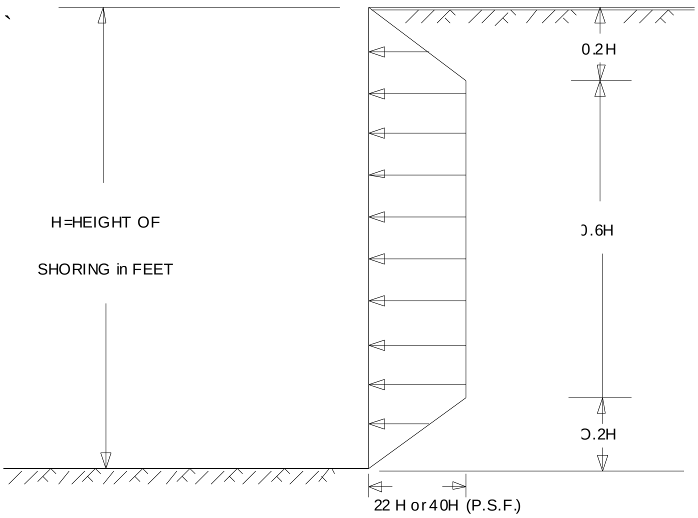
Shoring

To facilitate construction of the proposed retaining wall, excavation into the existing slope will be required. Shoring may be used to support the existing slope which may have an inclination of up to 1½:1 (horizontal to vertical). The shoring may consist of soldier piles and may be either cantilevered or tied-back with earth anchors.

Lateral Pressures

For design of cantilevered shoring, where the surface of the backfill is level, it can be assumed that drained soils will exert a lateral pressure equal to that developed by a fluid with a density of 30 pounds per cubic foot. In addition to the recommended earth pressure, the walls should be designed to resist any applicable surcharges due to storage or traffic loads. For retaining walls where the backfill has a 1½:1 (horizontal to vertical) inclination, it can be assumed that drained soils will exert a lateral pressure equal to that developed by a fluid with a density of 50 pounds per cubic foot.

For the design of braced or tied-back shoring, we recommend using a trapezoidal pressure distribution. For level grade behind the shoring (level perpendicular to the excavation), the following diagram may be used where the maximum pressure is equal to 22H pounds per square foot (psf), where H is the retained height in feet. Where the surface of the restrained earth slopes 1½:1 (horizontal to vertical), the maximum pressure would be equal to 40H.



Tie-Back Anchor Design

Tie-back friction anchors may be used to resist lateral loads. Based on the available information, we have evaluated braced shoring for a maximum retained height of 14 feet. For design purposes, it may be assumed that the active wedge adjacent to the shoring is defined by a plane drawn at 35 degrees from the vertical through the bottom of the excavation. The anchors should extend at least 15 feet beyond the potential active wedge and to a greater length if necessary to develop the desired capacities.

The capacities of the anchors should be determined by testing of the initial anchors as outlined below. For design purposes, it may be estimated that drilled friction anchors will develop an average friction value of 600 and 400 pounds per square foot for the siltstone bedrock and marine deposits, respectively. For post-grouted anchors, it may be estimated that the anchors could develop an average friction of up to 1,800 and 1,200 pounds per square foot for bedrock and marine deposits, respectively. Only the frictional resistance developed beyond the active wedge would be effective in resisting lateral loads. If the anchors are spaced at least 6 feet on centers, then no reduction in capacity is necessary.

Tie-Back Anchor Installation

The anchors may be installed at angles of 15 to 40 degrees below the horizontal. Ground water seepage may occur within the drilled shafts and may result in slickened sides of the anchor shafts. Therefore, we recommend that the drilled shafts be "rifled" to ensure positive contact.

The anchors should be filled with concrete placed by pumping from the tip out, and the concrete should extend from the tip of the anchor to the active wedge.

We suggest that the portion of the anchor shaft within the active wedge be backfilled with sand with a small amount of cement to allow the sand to be placed by pumping. The sand-cement mixture should fill the portion of the tie-back anchor tightly and should be flush with the face of the shoring when finished.

Tie-Back Anchor Testing

The installation of the anchors and the testing of the completed anchors should be observed by a representative of our firm. Our representative should select at least two of the initial anchors for 24-hour 200% tests and four additional anchors for "quick" 200% tests to verify in the field the friction value assumed in this report. We recommend that the 200% tests be performed at representative locations around the site and not concentrated in a single area.

The total deflection during 24-hour 200% tests should not exceed 12 inches during loading; the anchor deflection should not exceed ¾ inch during the 24-hour period, measured after the 200% test load is applied. If the anchor movement after the 200% load has been applied for 12 hours is less than ½ inch, and the movement over the previous 4 hours has been less than 0.1 inch, the test may be terminated.

For the quick 200% tests, the test load should be maintained for 30 minutes. The total deflection of the anchor during the 200% quick test should not exceed 12 inches; the deflection after the 200% test load has been applied should not exceed ¼ inch during the 30-minute period.

All of the production anchors should be pre-tested to at least 150% of the design load; the total deflection during the test should not exceed 12 inches. The rate of creep under the 150% test should not exceed 0.1 inch over a 15-minute period in order for the anchor to be approved for the design loading.

After a satisfactory test, each production anchor should be locked off at the design load. The locked-off load should be verified by rechecking the load on the anchor. If the locked-off load varies by more than 10% from the design load, the load should be reset until the anchor is locked off within 10% of the design load.

The installation of the anchors and the testing of the completed anchors should be observed by our firm.

Deflection

It is difficult to accurately predict the amount of deflection of a shored embankment. It should be realized, however, that some deflection would occur. We estimate this deflection could be about 1 inch at the top of the shored embankment. If greater deflection occurs during construction, additional bracing may be necessary.

Monitoring

Some means of monitoring the performance of the shoring system is recommended. The monitoring should consist of periodic surveying of the lateral and vertical locations of the tops of all the soldier piles. Initial survey should be taken prior to the first level of excavation so that an accurate baseline may be established.

We will be pleased to discuss monitoring considerations further with the design consultants and the contractor when the design of the shoring system has been finalized.

Soldier Piles

For the design of soldier piles spaced at least 2 diameters on-center, the allowable lateral bearing value (passive pressure) of the soils and bedrock below the bottom of the excavation may be assumed to be 600 pounds per square foot, per foot of pile embedment below the excavated surface, up to a maximum value of 6,000 pounds per square foot. To develop the full lateral values, firm contact between the soldier piles and the undisturbed soil bedrock must be assured. A lean mix concrete may be used for the soldier pile, but should have sufficient strength below the bottom of the excavation to adequately transfer the imposed loads to the surrounding soils.

The frictional resistance between the soldier piles and the retained earth may be used in resisting the downward component of the anchor load. The coefficient of friction between the soldier piles and the retained earth may be taken as 0.4. (This value is based on the assumption that uniform full bearing will be developed between the steel soldier beam and the lean-mix concrete and between the lean-mix concrete and the retained earth.) In addition, the portion of the soldier piles below the excavated level may be used to resist downward loads. The downward capacity of the concrete soldier piles below the excavated level may be determined using an average friction value of 400 pounds per square foot.

Lagging

Continuous lagging will be required between the soldier piles in the fill and overburden soils and in areas of water seepage. If the clear spacing between soldier piles does not exceed five feet, lagging between soldier piles could be omitted in the siltstone and sandstone bedrock if geologic conditions are favorable. The excavation should be observed during construction to confirm that lagging may be omitted.

The soldier piles and anchors should be designed for the full anticipated lateral pressure. However, the pressure on the lagging will be less due to the arching effect of the retained soils. We recommend that the lagging be designed for the recommended earth pressure, but limited to a maximum value of 400 pounds per square foot.

Retaining Wall Supported on Piles

As an alternative, the proposed retaining wall may be supported on piles. The shoring piles may be used to support the proposed retaining wall. The recommendations and design values given for shoring may be used for the proposed retaining wall. Instead of using lean-mix concrete below the excavated level, the soldier piles should be filled with structural concrete. In addition, the structural elements should be designed with corrosion protection.

Soil Nail Wall

The retaining wall may be supported by soil nails. The natural materials are suitable for soil nail wall construction provided the recommendations provided in this report are followed. Guidelines presented in the "*Manual for Design and Construction Monitoring of Soil Nail Walls,*" Publication FHWA-SA-96-069 from the Federal Highway Administration, should be followed. In addition to these guidelines, recommendations for soil nail testing, installation procedures and monitoring for the soil nail wall are presented in this section.

Based on the type of materials encountered in our prior test pits and current borings as well as the laboratory testing, a unit ultimate bond stress of 7.5 pound per square inch, an ultimate internal friction angle of 25 degrees, an ultimate cohesion of 575 pounds per square foot and a unit weight of 105 pounds per cubic foot are recommended. Using these soil strengths, the soil nailing stability calculations should indicate a factor of safety of at least 1.5 under static loads and a factor of safety of at least 1.1 for seismic loads. A seismic coefficient of 0.21 is recommended.

Drainage

Ground water should be controlled during and after the soil nail wall installation, if necessary. A surface interceptor ditch is recommended along the top of the excavation for controlling surface flows. The soil nail wall should be provided with face drains or shallow drains. The face drains could consist of geotextile drain strips (about 16 inches wide) placed vertically down the excavation face, spaced at the same distance as the nail horizontal spacing, and discharging either into a base drain or through weep holes at the bottom of the wall. Shallow drains are typically 12- to 16-inch long, 2- to 4-inch diameter PVC pipes discharging through the face.

Soil Nail Testing

The soil nails are not normally preloaded after installation. Furthermore, the lack of soldier pile or other reaction elements make proof testing of all of the soil nails impractical. However, some soil nails should be tested. The shotcrete facing will need to be reinforced in the vicinity of each test nail to provide a satisfactory reaction. The nails in the lower rows will develop greater frictional resistance than the nails in the upper rows, and testing of the lower rows will be just as important as the upper rows.

Pre-production nail pullout test should be performed on at least two nails at different locations along the proposed wall to 200% of the assumed adhesion times the total nail surface area to verify the assumed adhesion of the nail. In addition, about 10 percent of the production nails should be randomly selected by the geotechnical engineer of record and tested to 150% of the assumed adhesion times the total nail surface area. Since the portion of the soil nail forward of the critical failure surface will also be grouted, the test should be adjusted to account for the fully grouted length. The total deflection during the 150% test should not exceed 2 inches during the entire test. The load should be applied in at least five increments and the load should be maintained at 150% of the design load for at least 30 minutes; the deflection of the soil nail after the 150% loading is applied should not exceed 0.1 inch during the 30 minute test period. The measured deflections should not include the elastic elongation of the steel bars under axial loading. We also recommend that a small nominal load be applied to each test nail prior to testing to remove any slack in the nails and provide firm contact between the hardware components.

The total deflection during the entire 200% test should not exceed two inches. The rate of creep under the 200% test should not exceed 0.2 inches during a 24-hour period in which the 200% load is maintained. The installation and testing of the soil nails should be observed by the geotechnical engineer of record.

The soil nail excavations should be grouted as soon as possible; the holes should not be left open overnight. To assure full contact and mobilization of the soil strength, we recommend that a small nominal load be applied to each test nail prior to testing to remove any slack in the nails and provide firm contact between the hardware components. We also recommend that all nails should be locked off at a nominal load of about five kips.

The shotcrete facing on the soil nailed wall should be applied as soon as possible after excavation and should be applied not later than 24 hours after the soil nails are installed; preferably the shotcrete should be applied on the same day. This recommendation should be reviewed in the field and modifications made where necessary.

Special precautions should be taken to provide corrosion protection to the nail tendon and head (refer to the FHWA-SA-96-069 Manual).

Minimizing the deflection of the wall will be important to reduce the effects of the deflection on the adjacent properties and utilities. Accordingly, we recommend that survey monuments be established at approximately 20-foot intervals along the top of the soil nail wall to determine both lateral and vertical movement. The settlement monuments should be surveyed at least at weekly intervals during construction. The initial readings should be taken prior to the beginning of the excavation to establish baseline readings. The survey readings should be taken by a licensed land surveyor.

The drawings should include provisions for providing supplemental wall support in the event the lateral deflection or settlement exceeds 2 inches.

GENERAL LIMITATIONS

Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable geotechnical consultants practicing in this or similar localities. No other warranty, expressed or implied, is made as to the professional advice included in this letter.

The scope of this consultation did not include geologic or seismic studies for the site. Accordingly, our conclusions and recommendations are for static loading conditions only; however, this does not imply that there is a geologic or seismic hazard affecting the site. Also, the assessment of general site environmental conditions for the presence of contaminants in the soils and ground water of the site was beyond the scope of this consultation.

It has been a pleasure to be of professional service to you. Please call if you have any questions or if we can be of further assistance.

Sincerely,

MACTEC Engineering and Consulting, Inc.

Lan-Anh Tran
Project Engineer

Rosalind Munro
Principal Geologist

Professional Geologist
Rosalind Munro
No. 1269
Certified Engineering Geologist
State of California

Marshall

Marshall Lew, Ph.D.
Senior Principal
Vice President

Registered Professional Engineer
Marshall Lew
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Geotechnical
State of California

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(4 copies submitted)

Appendix F.
Preliminary Water Quality Management Plan

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Water Quality Management Plan

for

Mariner's Pointe
100-300 West Coast Highway

Development Plan No. DP 2010-001
Parcel Map No. 2010-133

Prepared for:

VBAS Corporation
1775 Newport Blvd., Suite B
Costa Mesa, CA 92627
(949) 645-9000

Prepared by:

Anacal Engineering Company, Inc.
1900 East La Palma Avenue, Suite 202
Anaheim, CA 92805
(714) 774-1763

February 28, 2011

Anacal Job #10-028

OWNER'S CERTIFICATION

Water Quality Management Plan
for
Mariner's Pointe
100-300 West Coast Highway
Development Plan No. DP 2010-001

The Water Quality Management Plan for the Retail and Office Building has been prepared for Tod Ridgeway by Anacal Engineering Company. This WQMP is intended to comply with the requirements of the City of Newport Beach under Development Plan No. DP 2010-001 (PA 2010-114) comment 14 requiring preparation of a preliminary WQMP.

The undersigned, while it owns the subject property, is responsible for the implementation of the provisions of this plan and will ensure that this plan is amended as appropriate to reflect up-to-date conditions on the site consistent with the current Orange County Drainage Area Management Plan (DAMP), and the intent of the NPDES Permit and Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and the Incorporated Cities of Orange County within the Santa Ana Region Areawide Urban Stormwater Runoff Management Program. A copy of this WQMP will be maintained at the project site or project office.

This Water Quality Management Plan will be reviewed with the facility operator, facility supervisors, employees, tenants, maintenance and service contractors, or any other party having responsibility for implementing portions of this Water Quality Management Plan. Once the undersigned transfers its interest in the property, its successors-in-interest shall bear the aforementioned responsibility to implement and amend the WQMP. An appropriate number of approved and signed copies of this document shall be available on the subject site in perpetuity.

Owner's Signature **Date**

Glen Vendult
Owner's Printed Name

Owner
Owner's Title/Position

N/A
Company

1775 Newport Beach Blvd., Suite B
Costa Mesa, CA 92626
Address

(949) 645-9000
Telephone Number

Table of Contents

List of Tables

Appendices

I. Discretionary Permit Number(s), Water Quality Condition Number(s) and Conditions

1) Discretionary Permit Number - The City of Newport Beach Development Plan No. DP 2010-001, Use Permit No. UP 2010-024, Parcel Map No. NP 2010-008.

2) WQMP Plan Check # -

3) Conditions - The property is conditioned under comments and corrections for PA 2010-114 which has the following water quality conditions:

14. Environmental Analysis Support – Please provide a drainage concept plan/hydrology report, proposed water quality improvements (i.e. BMPs), and water and sewer system improvements. Your Civil Engineer shall be prepared to work with the City's Environmental Consultant to provide the necessary information needed to complete a thorough environmental review for the project.

II. Project Description

The property is located in a CG, general commercial zone and is under a general plan land use policy LU 6.19.13. The total site area is 0.75 a.c. and includes approximately 12,000 SF of ground floor building area located in the east portion of the site. Additionally, a parking garage is located on-site with additional land area coverage of approx. 18,170 SF. The remaining 2,500 SF of land is proposed to be landscape area and located along the project perimeter. Additional building landscape will be provided per the approved landscape plan.

Building activity is proposed for retail, indoor restaurant, and general office uses. Delivery to the site will be to the parking structure within an area designated for such purposes. Waste shall be placed in the designated trash area located along the north side of the property. No landscape maintenance or building maintenance materials are to be stored on-site except for individual users normal indoor cleaning solvents.

No outdoor storage of materials is allowed and no outdoor food preparation facilities are proposed. No outdoor activities associated with equipment or vehicle maintenance and repair including commercial vehicle washing or cleaning is allowed. Rain tight receptacles in walled enclosures are proposed to prevent off-site transport of trash. Materials used and stored at the site may include cleaning solvents & dry packaged deliverable goods and food for restaurant use. No hosing down of the parking lot is allowed. The industrial classification is best listed as 5812. Ownership of the property is under Glen Vendult. See Section V for address and phone number.

Anticipated pollutants generated on-site include heavy metals, trash and debris and oil and grease from vehicles including organic compounds. Potential pollutants include bacteria/virus, nutrients and pesticides from landscape maintenance.

Step 4: Characterize the potential water quality impacts

New development and significant redevelopment can be expected to generate potential pollutants in stormwater discharges. **Table 7.I-3** provides a summary of potential pollutants generated by land use type. This table can be used to identify the anticipated pollutants to be generated by a proposed project. Compare the list of pollutants for which the receiving water(s) are impaired (303(d) listed) and for which a TMDL exists or is proposed. Also, consider other applicable Regional Board Directives for a receiving water, as well as specific narrative and numeric Water Quality Objectives for the receiving water outlined in the Basin Plan. Where a proposed project is expected to generate specific pollutants that are regulated by a TMDL, Directive or other water quality objectives, then a potential impact to receiving water quality may be expected but may be shown to not to exist after focused analysis during the CEQA process.

Table 7.I-3 Anticipated and Potential Pollutants Generated by Land Use Type

	General Pollutant Categories								
Priority Project Categories	Sediments	Nutrients	Heavy Metals	Organic Compounds	Trash & Debris	Oxygen Demanding Substances	Oil & Grease	Bacteria & Viruses	Pesticides
Detached Residential Development	A	A			A	A	A	A	A
Attached Residential Development	A	A			A	P(1)	P(2)	P	A
Commercial/ Industrial Development >100.000 ft2	P(1)	P(1)		P(2)	A	P(5)	A	P(3)	P(5)
Automotive Repair Shops			A	A(4)(5)	A		A		
* Restaurants					A	A	A	A	
Hillside Development >5,000 ft² in SDRWQCB	A	A			A	A	A		A
Hillside Development >10,000 ft² in SDRWQCB	A	A			A	A	A		A
* Parking Lots	P(1)	P(1)	A		A	P(1)	A		P(1)
Streets, Highways & Freeways	A	P(1)	A	A(4)	A	P(5)	A		

A = anticipated
P = Potential
(1) A potential pollutant if landscaping exists on-site.
(2) A potential pollutant if the project includes uncovered parking areas.
(3) A potential pollutant if land use involves food or animal waste products.
(4) Including petroleum hydrocarbons.
(5) Including solvents.

III. Site Description

The site is located at 100-300 West Coast Highway at the northwest corner of Coast Highway and Dover Street. The site is within the GC General Commercial Zone and is comprised of 0.75 a.c. The soil type is sandy silt and anticipated to have a infiltration rate of 0.5 in/hr. This existing impervious percentage is 85% and the proposed impervious percentage is 90%.

Currently the site drains partially to an existing catch basin on Dover which is part of a State maintained storm drain system in Coast Highway and partially to Coast Highway traveling west to an existing catch basin on Coast Highway which is also part of a State maintained storm drain system. These storm drains connect to the lower Newport Bay. The 2006 CWA 303(d) lists the lower Bay as being impaired for metals, nutrients, pathogens, pesticides and siltation. TMDL's are in implementation phase for pathogens, nutrients and siltation. There are no hydrologic conditions of concern as the area is fully developed. The lower Bay is an area of special beneficial use.

Proposed will be drainage patterns similar to the existing pattern. Off-site drainage will be collected and drained to the existing streets and storm drain system. On-site drainage will be sheet flowed to filtered inlets with perforated pipes for infiltration and overflow to streets via curb drains.

IV. Best Management Practices

All applicable Best Management Practices were considered for the subject design. Drainage from the site is directed to filtered inlets with infiltration trenches proposed to treat the SQDF peak run-off. See the BMP calculations in Appendix C for required volume of water from roof and parking areas. Planters are curbed or depressed to promote infiltration of water contacting these areas. Owner shall be responsible for educating tenants and occupants upon occupancy and yearly thereafter. Owner shall hire a contractor to maintain filters and landscaping consistent with the approved landscape plan and to maintain a clean site by removing litter, cleaning debris out of catch basins and to sweep the parking lot on a regular basis. Private storm drains stencil shall be maintained and repainted when fades 50%.

IV.1 Site Design BMPs

Table 1. Site Design BMPs

Site Design BMP Concept	Included?		If no, state justification.
	Yes	No	
Minimize Directly Connected Impervious Areas (DCIAs) (C-Factor Reduction)	X		
Create Reduced or "Zero Discharge" Areas (Runoff Volume Reduction)1	X		
Minimize Impervious Area/Maximize Permeability (C-Factor Reduction)2	X		
Conserve Natural Areas (C-Factor Reduction)		X	None Existing

1 Detention and retention areas incorporated into landscape design provide areas for retaining and detaining stormwater flows, resulting in lower runoff rates and reductions in volume due to limited infiltration and evaporation. Such Site Design BMPs may reduce the size of Treatment Control BMPs.

2 The "C Factor" is a representation of the ability of a surface to produce runoff. Surfaces that produce higher volumes of runoff are represented by higher C Factors. By incorporating more pervious, lower C Factor surfaces into a development, lower volumes of runoff will be produced. Lower volumes and rates of runoff translate directly to lowering treatment requirements.

The site roof and parking lot area is designed to drain to inlets fitted with filter inserts designed to remove targeted pollutants prior to outlet to perforated pipes in infiltration trenches designed to infiltrate to the extent possible prior to release to the public storm drain. Planters are curbed or depressed to promote infiltration. Parking areas and drives are designed to minimum standards. Parking lot runoff is directed to inlets fitted with Flo-Guard Filters. See Site Plan for location of filtered inlets and planters.

IV.2 Source Control BMPs

IV.2.1 Routine Non-Structural BMPs

Table 2. Routine Non-Structural BMPs

BMP No.	Name	Check One		If not applicable, state brief reason.
		Included	Not Applicable	
N1	Education for Property Owners, Tenants and Occupants	X		
N2	Activity Restriction	X		
N3	Common Area Landscape Management	X		
N4	BMP Maintenance	X		
N5	Title 22 CCR Compliance		X	Single Owner
N6	Local Water Quality Permit Compliance		X	None Required
N7	Spill Contingency Plan		X	None Required
N8	Underground Storage Tank Compliance		X	None Proposed
N9	Hazardous Materials Disclosure Compliance		X	None Proposed
N10	Uniform Fire Code Implementation	X		
N11	Common Area Litter Control	X		
N12	Employee Training	X		
N13	Housekeeping of Loading Docks		X	None Proposed
N14	Common Area Catch Basin Inspection	X		
N15	Street Sweeping Private Streets and Parking Lots	X		
N16	Commercial Vehicle Washing	This BMP is no longer appropriate.		
N17	Retail Gasoline Outlets		X	None Proposed

Tenants and occupants are to be educated in regards to this WQMP upon occupancy and yearly thereafter. Contracts for landscape maintenance and maintenance of storm drain is required. Grate inlets are to be kept clear of debris and parking lots are to be swept once prior to the rainy season Sept. 15 and once a month thereafter to the end of said season April 15. See Inspection and Maintenance Responsibility and Frequency Matrix in Section V for a listing of implementation frequency and responsible party information.

Routine Non-Structural BMPs

(N1) Education of Property Owners, Tenants and Occupants - This document is to be provided to each tenant with instructions to review contents and to supply each employee upon hiring and once yearly thereafter handouts and attachments applicable to their job. A copy of this document is to be read by each facility operator and kept in the manager's office for review by affected personnel. See Attachment VII - Educational Material.

(N2) Activity Restrictions - Activities related to the operation of this facility will be restricted by the building operator. No littering or dumping of trash is allowed. Commercial vehicle washing and maintenance is prohibited. Washing kitchen wastes or kitchen equipment to storm water drainage facilities is prohibited. Discharge of fertilizer, pesticides, or animal wastes to streets or storm drains is prohibited. The blowing or sweeping of debris into streets or storm drains is not allowed. The hosing down of any paved surfaces where the result would be the flow of non-storm water into the street or storm drain is prohibited. Trash receptacles are to be kept covered or sheltered by a roof overhang or canopy. Vehicle washing, maintenance or repair onsite by employees, customers, or the public is prohibited.

(N3) Common Area Landscape Management - Ongoing landscape maintenance shall be consistent with the landscape water efficiency as shown on the approved landscape and irrigation plans. Fertilizer and pesticide usage consistent with county guidelines. Proper maintenance of the landscape area is the responsibility of the owner and shall be done at a minimum of twice monthly and include inspection and repair of any damaged irrigation pipings and sprinkler heads, as well as adjustments to prevent over watering and overspray onto impermeable surfaces.

(N4) BMP Maintenance - Responsibility for implementation of each non-structural BMP and scheduled maintenance of catch basins is to be scheduled by the facility manager who will be appointed by the owner. Parking lot sweeping shall be provided prior to the rainy season and a minimum of once a month during such time October 15 through April 15. Sweeping may be reduced to once every 2 months during the remainder of the year. See N15. Common area litter control shall be performed in accordance with Section (N11). Employee training shall be done in accordance with Section (N12). Common area catch basin inspection is to be performed in accordance with Section (N14) Education of Tenant and occupants to be done in accordance with Section N1.

(N11) Common Area Litter Control - Owner shall be required to implement trash management and litter control procedures aimed at reducing pollution of drainage water. Owner shall contract with their landscape maintenance firms to provide this service during regularly scheduled maintenance, which should consist of litter patrol, emptying of trash receptacles and noting trash disposal violations by businesses and reporting the violations to the Owner for investigation on a weekly basis. Outdoor trash receptacles are to be placed outside of each food service area. (See plot plan), and they shall be emptied as required to prevent trash from over filling such receptacles. Main trash dumpster is and shown on the plot plan Section VI. Daily inspection is required to prevent overfilling of receptacles. The owner is responsible to empty the trash when the receptacle is full or near full.

(N12) Employee Training - Employees shall be educated upon orientation and annually thereafter in BMPs as outlined herein (see educational material Attachments I-VI). A copy is to be kept at the facility at all times.

(N14) Common Area Catch Basin Inspection - Catch basins are to be inspected once during the dry season and once every month during the wet season April through October. Also, inspect prior to rainy season and after 1st significant rainstorm.

(N15) Street Sweeping Private Streets and Parking Lots - Parking lots are to be swept prior to the storm season and once a month during the season April 15 through October 15. During the dry season the parking lot shall be swept every 2 months. An outside contractor shall be utilized for this service and all debris removed from site and disposed of in accordance with state law.

IV.2.2 Routine Structural BMPs

Table 3. Routine Structural BMPs

Name	**Check One**		**If not applicable, state brief reason**
	Included	**Not Applicable**	
Provide storm drain system stenciling and signage	X		
Design and construct outdoor material storage areas to reduce pollution introduction		X	None Proposed
Design and construct trash and waste storage areas to reduce pollution introduction	X		
Use efficient irrigation systems & landscape design	X		
Protect slopes and channels and provide energy dissipation	X		
Incorporate requirements applicable to individual project features		X	None Planned
a. Dock areas		X	
b. Maintenance bays		X	
c. Vehicle wash areas		X	
d. Outdoor processing areas		X	
e. Equipment wash areas		X	
f. Fueling areas		X	
g. Hillside landscaping		X	
h. Wash water control for food preparation areas		X	
i. Community car wash racks		X	

Catch basin's filters are to be cleaned and maintained in accordance with Manufacturer's recommendations.

Catch basins are to be signed "No Dumping Drains to Ocean" and re-painted when fades 50%. Trash enclosures to keep rain tight lids down and spills wiped with dry cloth and placed in said container. Trash area is walled to keep rainwater away and trash from leaving area.

See Inspection and Maintenance Responsibility and Frequency Matrix in Section V for a complete listing of implementation frequency and responsible party information.

Site Design BMPs

The site was determined to be a priority project and therefore requiring treatment control BMPs. All planters are curbed or depressed and an infiltration trench installed to promote infiltration as a means of mitigation. Treatment control is provided to minimize or illuminate targeted pollutants. The landscaping on-site is designed in accordance with city approved landscape plans. The landscape and irrigation system shall be maintained as specified within Sections N3 and N4.

Routine Structural BMPs

Catch Basin Stenciling - Phase "No Dumping - Drains to Ocean" is to be painted on catch basins to alert the public to the destination of pollutants discharged into stormwater. The paint shall be maintained as required a minimum of once yearly by the owner's representative. All catch basins within the city owned right of way will be maintained by the City of Anaheim. All inlets outside of street right of way within the project limits will be privately owned and maintained by the property owner through outside contractors. See Section VI - BMP Details for catch basin stenciling.

Trash Container (Dumpster) Area - The trash enclosure has been designed to have drainage from adjoining roofs and pavements diverted around the area. 6' walls are provided to divert water away from this area. Containers shall be rain tight lids. Routine inspection of the trash area to be provided by owner's representative at least once every 2 weeks. A sign in English and Spanish requiring that trash container lids shall be closed after depositing trash is required at this location. Debris shall be swept up and deposited into the trash receptacles. When wet substances of discolored pavement exists clean without allowing discharge to the outside area.

Use of Efficient Irrigation Systems and Landscape Design, Water Conservations, Smart Controllers, and Source Control - Plants are grouped with similar water requirements and the irrigation system is designed in accordance with the City of Tustin requirements as per the approved landscape drawings.

IV.3 Treatment Control BMPs

Table 4. Treatment Control BMPs

Name	**Included?**	
	Yes	**No**
Vegetated (Grass) Strips		X
Vegetated (Grass) Swales		X
Dry Detention Basin		X
Wet Detention Basin		X
Constructed Wetland		X
Detention Basin/Sand Filter		X
Porous Pavement Detention		X
Porous Landscape Detention	X	
Infiltration Basin		X
Infiltration Trench	X	
Media Filter		X
Proprietary Control Measures		X

Landscape areas are curbed or depressed and infiltration trenches are proposed to capture the required volume for mitigation to promote infiltration. Landscape areas are to be maintained in accordance with Section V Maintenance Matrix and shall consist of adjusting sprinkler systems to minimize overspray, replacement of dead or dying plants, sweeping eroded material back into planter and stabilizing any eroded areas with sod or pea gravel. Fertilizing and composting shall be maintained at a minimum and per County and City guidelines to avoid pesticides and organic matter from leaving site.

Infiltration trench is proposed to capture and remove metals, oils, grease, sediments, bacteria, nutrients, bacteria and debris as such is associated with office and restaurant site use. All parking lots and building roof surface is designed to drain to these infiltration trenches prior to release to the public street. See Hydraulic Calculations in the Appendix for capacity information and design. Although bacteria, viruses and organic pollutants are not expected from the land use, parking lot sweeping and trash control along with infiltration will mitigate these pollutants. See Section V for parking lot sweeping requirements and general trash control and maintenance.

The proposed maintenance of the parking lot and trash area will be done on a weekly basis. All trash is to be swept and placed in the trash bins. Lids are to be kept closed at all times. Any wet spills are to be cleaned using minimal water and wiped clean with dry cloth and placed in the trash bin for disposal. No watering down of the parking lot area or trash area is allowed.

V. Implementation, Maintenance and Inspection Responsibility for BMPs (O&M Plan)

Inspection and maintenance of BMPs will be the responsibility of Glen Vendult. A contract for trash management, litter control, landscape and catch basin maintenance will be made with outside contractors as necessary in accordance with the minimum frequency and instructions herein to assure effectiveness of each BMP.

Long term maintenance will be the responsibility of the owner, and the maintenance shall be funded by the owner on a yearly basis out of a cash account secured for said services.

The manager and employees will be instructed in the current BMPs procedures. A maintenance schedule will be kept of all scheduled cleanup procedures. Records shall be kept of all BMPs as implemented.

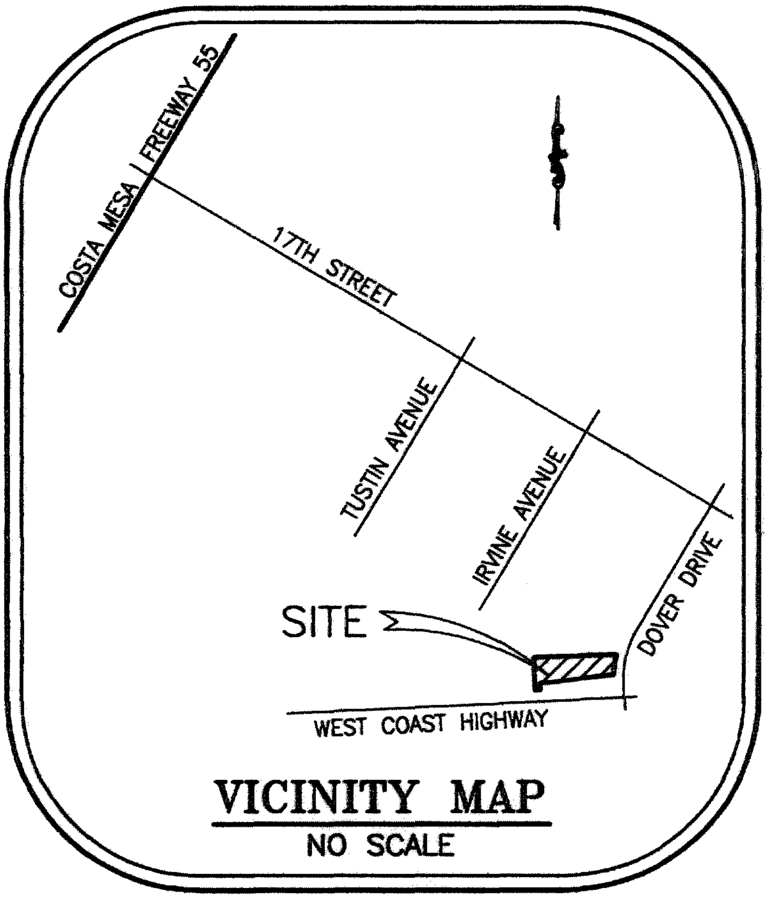
Property Owner: Glen Vendult
1775 Newport Blvd., Suite B
Costa Mesa, CA 92626
(949) 645-9000

INSPECTION AND MAINTENANCE RESPONSIBILITY AND FREQUENCY MATRIX

ROUTINE NON-STRUCTURAL BMP	RESPONSIBLE FOR INSPECTION/ MAINTENANCE	MINIMUM FREQUENCY	DESCRIPTION
N1 - Education for Property Owners, Tenants and Occupants	OWNER	Once yearly and for new employees	Provide literature and instruction pertaining to environmental awareness to all employees
N2 - Activity Restrictions	OWNER	Continuous	Report any violations relating to activity restrictions listed herein
N3 - Common Area Landscape Management	OWNER	Once every 2 weeks	Hire contractor familiar with Orange County guidelines for use of fertilizers and pesticides. Maintain all landscape equipment in proper working order.
N4 - BMP Maintenance	OWNER	Continuous	Provide maintenance as instructed in all sections of this plan.
N11 - Common Area Litter Control	OWNER	Daily	Inspect parking and trash areas, clean and dispose of all litter. Report any violations to the owner.
N12 - Employee Training	OWNER	Once yearly prior to storm season	Educate all employees on environmental awareness. Instruct on proper use of chemicals and cleanup procedures.
N14 - Common Area Catch Basin Inspection	OWNER	Bi-monthly from April 15 - October 15; Monthly from October 15 - April 15	Inspect catch basin, clean debris. Repaint "No dumping-drains to ocean" with fades 40%.
N15 - Street Sweeping Private Streets and Parking Lots	OWNER	Bi-monthly from April 15 - October 15; Monthly from October 15 - April 15	Sweep parking and drive areas. No hosing down of areas are allowed. Dispose of debris offsite.

INSPECTION AND MAINTENANCE RESPONSIBILITY AND FREQUENCY MATRIX			
ROUTINE STRUCTURAL BMP	RESPONSIBLE FOR INSPECTION/ MAINTENANCE	MINIMUM FREQUENCY	DESCRIPTION
Irrigation	OWNER	Once every 2 weeks	Inspect for siltation or debris washing out of planters. Sweep silt to planters and check amount of irrigation used and for properly functioning irrigation. Check irrigation system for leaks and over spray, provide maintenance as required.
Landscape	OWNER	Once every 2 weeks	Check for landscape to be in healthy condition. Replace dead or barren areas with plants consistent with the approved landscape plans.
Trash Container Area	OWNER	Once every 2 weeks	Sweep debris. Clean spills.
Treatment Control BMP	OWNER		
Infiltration Trench	OWNER	Bi-Monthly from April 15 – October 15	Inspect vegetation and replace dead plant material. Replace permeable material if standing water is found 48 hours after storm event.

VI. Location Map, Site Plan, and BMP Details

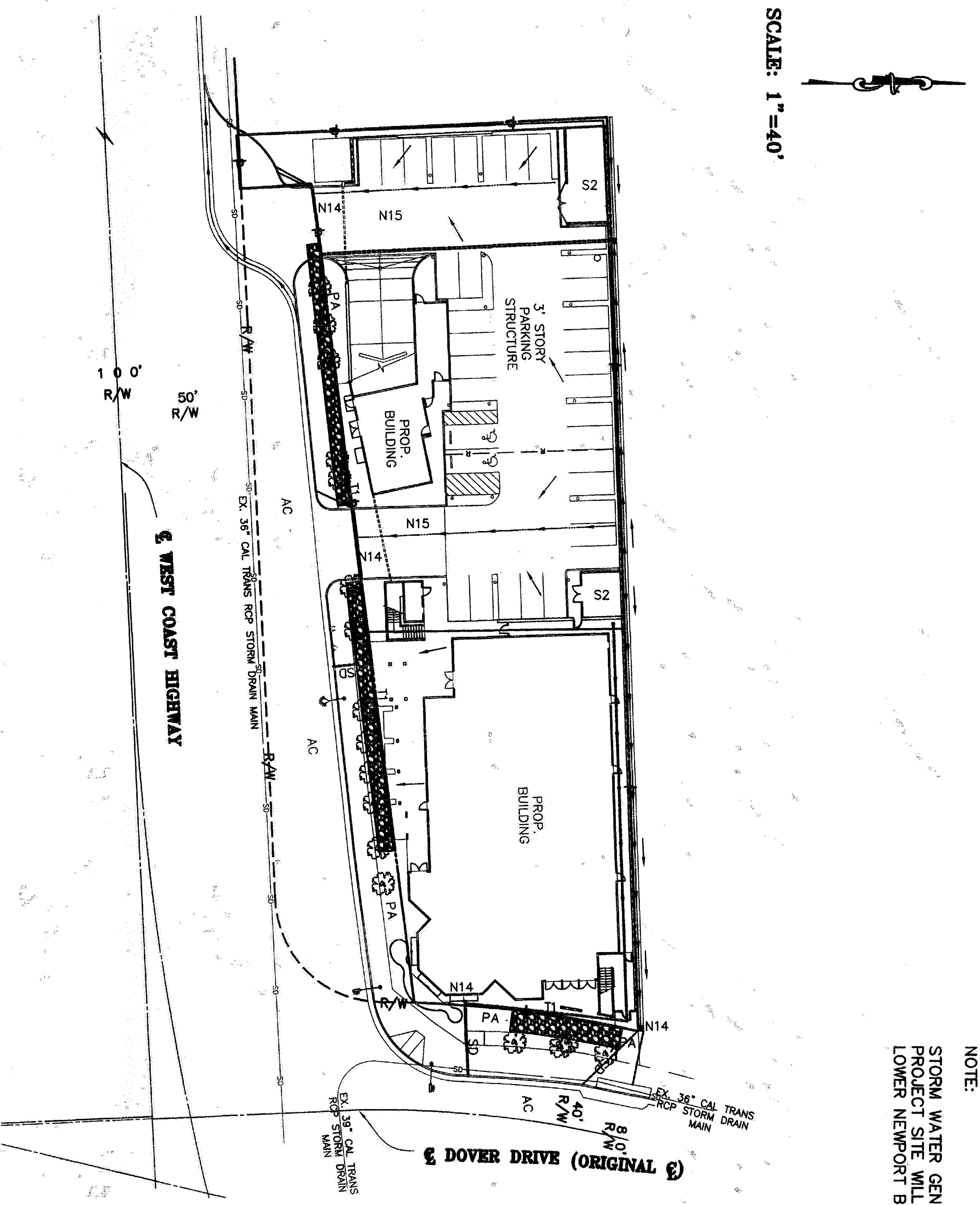


SITE LOCATION MAP

NO SCALE

SECTION VI

PLOT PLAN



NOTE:
STORM WATER GENERATED FROM THIS PROJECT SITE WILL ULTIMATELY DRAIN TO LOWER NEWPORT BAY WATERSHED.

STORM WATER GENERATED FROM THIS PROJECT SITE WILL ULTIMATELY DRAIN TO NEWPORT BAY AND IS PART OF THE SAN DIEGO CREEK WATERSHED.

LEGEND

T1 ▨	INDICATES INFILTRATION TRENCH
▤	GRATE INLET
PA	PLANTER AREA
AC	ASPHALTIC CONCRETE
SD	PRIVATE STORM DRAIN
T1	TC-10 INFILTRATION TRENCH
S2	TRASH AND WASTE STORAGE

N1	EDUCATION FOR PROPERTY OWNERS, TENANTS AND OCCUPANTS
N2	ACTIVITY RESTRICTIONS
N3	COMMON AREA LITTER CONTROL
N4	BMP MAINTENANCE
N11	COMMON AREA LITTER CONTROL
N12	EMPLOYEE TRAINING
N14	COMMON AREA CATCH BASIN INSPECTION
N15	STREET SWEEPING PRIVATE STREETS AND PARKING LOTS

LAND AREA
0.75 ACRES

WQMP SITE PLAN
100–320 WEST COAST HIGHWAY

CITY OF NEWPORT BEACH

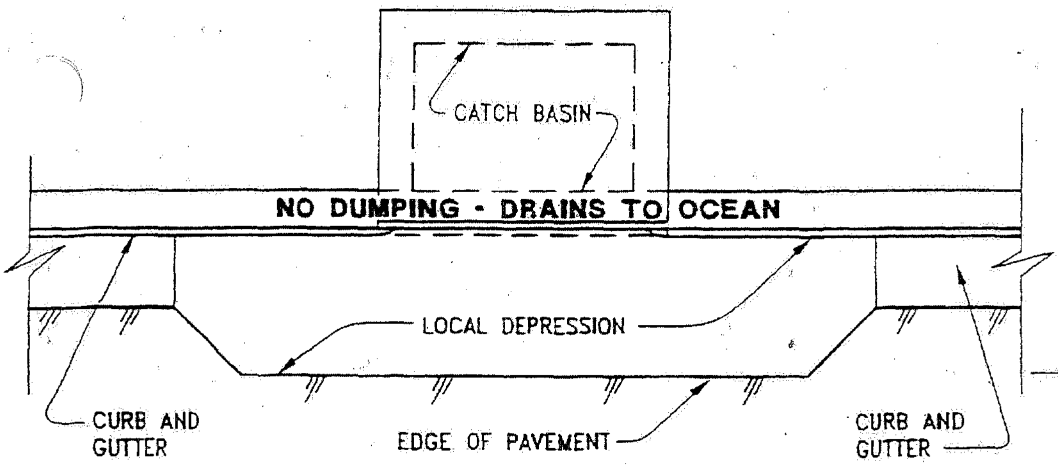
PREPARED BY: DRAWN BY: C.W.S. AEC NO. 10-069-WQMP
ANACAL ENGINEERING CO.
CIVIL ENGINEERING & LAND SURVEYING
1900 EAST LA PALMA AVENUE ~ SUITE 202 ~
ANAHEIM, CALIFORNIA 92805
PHONE: 714-774-1763 FAX: 714-774-4690
E-MAIL ADDRESS: ANACAL@ANACALENGINEERING.COM

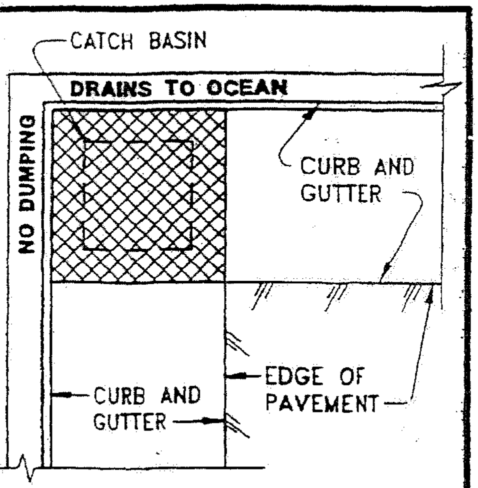
DAVID C. QUEYREL	42812	3-31-12
CIVIL EENGINEER	LICENSE NO.	EXP. DATE

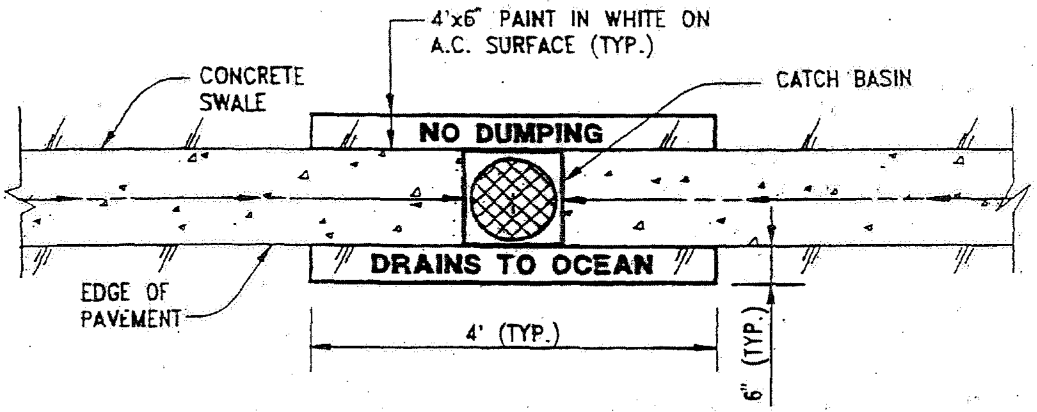
ANACAL ENGINEERING
Civil Engineering and Land Surveying
Anaheim

SECTION VI

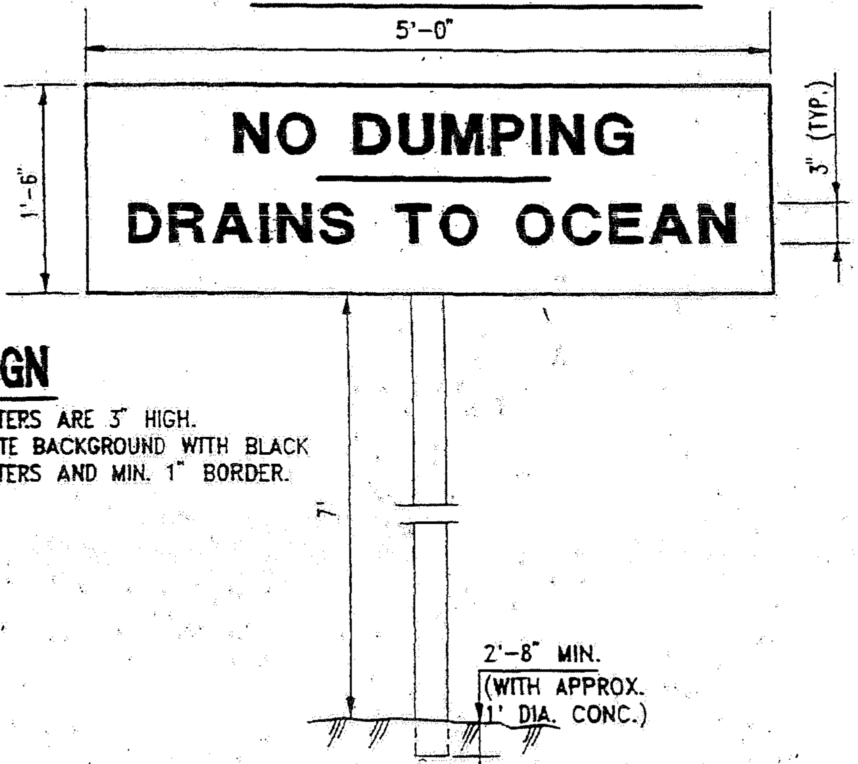
CATCH BASIN SIGNAGE







CATCH BASIN STENCIL



SIGN

LETTERS ARE 3" HIGH.
WHITE BACKGROUND WITH BLACK LETTERS AND MIN. 1" BORDER.

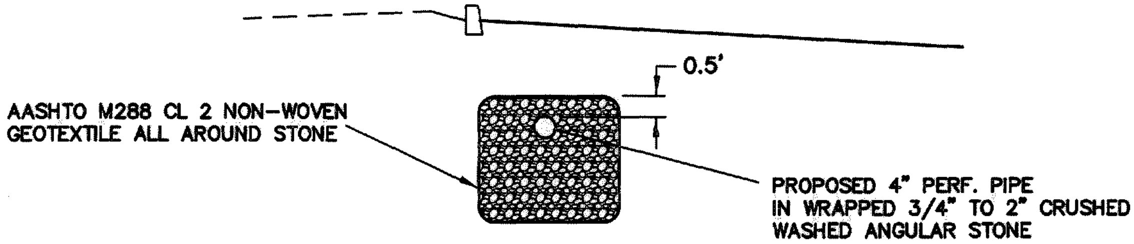
NOTES

1. ALL CATCH BASINS SHALL BE STENCILED ON THE TOP OF CURB: "NO DUMPING - DRAINS TO OCEAN"
2. THE LETTERING SHALL BE 3" HIGH AND IN BLACK PAINT.
3. STENCIL LAYOUT AS SHOWN.
4. SIGN SHALL BE PLACED AT :
   - a. THE BEGINNING OF ALL DOWNDRAINS WHICH ARE CONNECTED TO THE CATCH BASIN TO THE STORM DRAIN SYSTEM,
   - b. ALL CATCH BASIN LOCATIONS IN THE UNDEVELOPED AREAS OR OPEN SPACE.
   - C. ALONG THE WATER WAY AT EVERY 1000'.
5. ALL SIGNS SHALL BE NEW SINGLE SHEET ALUMINUM REFLECTORIZED WITH HIGH INTENSITY REFLECTIVE SHEETING (0.08" THICK).
6. PAINT MATERIALS SHALL BE PER SECTION 210-1.2, 1.3, 1.4 AND 1.5 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
7. POST SHALL BE SQUARE CHANNEL POST AS APPROVED BY THE FIELD ENGINEER.

"NO DUMPING - DRAINS TO OCEAN" STENCIL AT CATCH BASIN AND SIGN

SECTION VI

INFILTRATION TRENCH

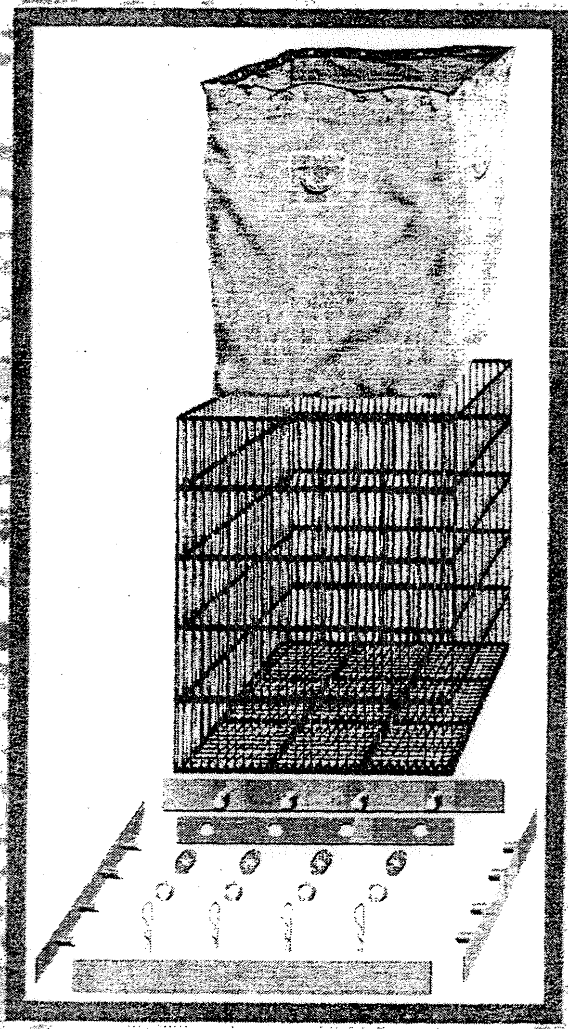


INFILTRATION TRENCH DETAIL

NO SCALE

EXHIBIT 4 - FILTER INSTRUCTIONS

DrainPac™ Storm Drain Filter Insert



The DrainPac™ Storm Drain Filter Insert is a flexible storm drain catchment and filtration liner designed to collect contaminants and debris prior to discharge into storm drain systems. The polypropylene in the filtration liner retains petroleum hydrocarbons and heavy metals to non-detect in the effluent discharge. Management of the storm drain systems' unintended function of transporting pollutants directly to our waterways can be minimized with the DrainPac™.

The DrainPac™ is a multi-layer filtration insert. The filtration liner is comprised of a non-woven filter cloth which has been tested and proven to maximize filtration of sludges containing heavy metals and petroleum hydrocarbons. The insert support grating is comprised of a high-density polymer rated at 7,540 pounds per foot. The insert support grating and filter liner are suspended below the drain, thus eliminating any interference with traffic flow.

Federal, State and City pollution prevention plans have been set. Now is the time to take action to comply. Installing the DrainPac™ to existing structures is easy. The DrainPac™ system will conform to all sizes, shapes, and configurations of storm drains. The only modification is to install a support bracket to the interior drain structure and insert the DrainPac™. This cost effective method reduces pollutants to EPA's "Maximum Extent Practicable." The system is a low cost Best Management Practice to aid in complying with NPDES and Clean Water Act requirements.

The DrainPac Storm Drain Filter Insert
is Best Management Practice and more!

- ✓ Containment of storm drain sediments and debris
- ✓ Non-detectable discharge of contaminants (heavy metals and petroleum hydrocarbons)
- ✓ Quick and easy installation in any size drain
- ✓ Reduces need to clean lateral drain lines. The result is lower volume of waste transportation and disposal cost.
- ✓ Reduces need to clean pump plants or replace pumps being damaged by sediments and debris.
- ✓ Process permitted on Transportable Treatment Units by The California Department of Toxics Substance Control.
- ✓ Tested in California and monitored by Regional Water Quality Control Board for compliance with NPDES discharge.
- ✓ Retained sediments are ready for disposal, eliminating further handling.

UNITED STORM WATER, Inc.
Protecting Our Water Resources

14000 EAST VALLEY BOULEVARD, SUITE B
CITY OF INDUSTRY, CA 91746
PHONE: 1-877-71-STORM
FAX: (626) 961-3166

Maintenance of DrainPac
Storm Drain Filter Inserts

United Storm Water, Inc., provides a complete full service storm water management company. United fabricates and installs DrainPac storm drain filter inserts. United also inspects, maintains, properly transports and disposes the material collected from the DrainPac. All inspections and cleanings are documented in the annual report to the customer.

United provides all safety equipment, material, and training required for the inspection and removal of storm water sediment and debris from the DrainPac liners.

- Inspection during the cleaning process. The waste material inside the DrainPac should be visually inspected prior to cleaning for any obvious contamination from illegal dumping. The waste material in the DrainPac should be classified for example: green waste, sediment, trash & litter or other. All Inspections and cleaning should recorded and documented. A sample of the storm drain waste should be analyzed for Heavy Metals and Hydrocarbons for proper classification and disposal. If the storm drain waste is classified as hazardous the analysis should be repeated for all disposals until the classification is changed to non-hazardous. DrainPac filters should be inspected for and replaced if there are any holes, rips or petroleum hydrocarbon build-up. Minimum requirement for inspection of the unit is on a quarterly basis during the dry season (June through September) and on a monthly basis during the wet season (October through May). According to the State of California State Water Resources Control Board, storm water discharge visual observations are required for at least one storm event per month during the wet season. The visual observation must be conducted during the first hour of discharge at all discharge locations.

- Equipment Required for Cleaning: DrainPac can be cleaned by hand or vacuum. The cleaning schedule will vary on the overall good housekeeping and other best management practices applied to the site. On average the DraniPac will cleaning on a quarterly basis. United strongly recommends cleaning of the unit prior to the wet season and after the first storm event with ¾" of rain.

Hand cleaning requires that the curb inlet unit be removed from the inlet box. The waste material can then be dumped into a container for analysis and disposal. If the storm drain is a drop inlet, the DrainPac must be lifted out manually or with a forklift. Confined Space procedures must be followed at all times.

Vacuum cleaning requires that the curb inlet can be cleaned in place with use of an industrial vacuum truck/trailer capable of pulling 850 cubic feet of air per minute. The waste material can then be dump into a container for analysis and disposal. If the storm drain is a drop inlet the DrainPac it to can be cleaned in place. Confined Space procedures must be followed at all times.

- Training for employees conducting drain cleaning. If the storm drain waste is classified as hazardous the employee is required to be OSHA 1910.120 trained in handling hazardous waste, the selections of personnel protective equipment and it proper use. Employee should have Blood Borne Pathogen training and be in a medical surveillance program because of the bio-hazardous hazards associated with drain cleaning for example: snakes, spiders, spent hypodermic needs.

- Transportation and disposal of storm drain waste. If the storm drain waste is classified as hazardous the waste it is treated as any other hazardous waste. The waste must be stored in a sealed container and approved proper storage, transportation and disposal. The waste must be properly labeled with a proper DOT shipping name and can only be accumulated for 90 days onsite in most cases. License hazardous waste transporters must transport the waste for disposal at an approved disposal site. If the storm drain waste is non-hazardous the waste can be placed in normal trash for landfill in a class III landfill.

VII. Educational Materials

SECTION VII

ORANGE COUNTY LANDSCAPE MAINTENANCE FACT SHEET

IC7. LANDSCAPE MAINTENANCE

Best Management Practices (BMPs)

A BMP is a technique, measure or structural control that is used for a given set of conditions to improve the quality of the stormwater runoff in a cost effective manner[1]. The minimum required BMPs for this activity are outlined in the box to the right. Implementation of pollution prevention/good housekeeping measures may reduce or eliminate the need to implement other more costly or complicated procedures. Proper employee training is key to the success of BMP implementation.

The BMPs outlined in this fact sheet target the following pollutants:

Targeted Constituents	
Sediment	x
Nutrients	x
Floatable Materials	x
Metals	
Bacteria	x
Oil & Grease	
Organics & Toxicants	
Pesticides	x
Oxygen Demanding	x

MINIMUM BEST MANAGEMENT PRACTICES

Pollution Prevention/Good Housekeeping

- Properly store and dispose of gardening wastes.
- Use mulch or other erosion control measures on exposed soils.
- Properly manage irrigation and runoff.
- Properly store and dispose of chemicals.
- Properly manage pesticide and herbicide use.
- Properly manage fertilizer use.

Stencil storm drains

Training

- Train employees on these BMPs, storm water discharge prohibitions, and wastewater discharge requirements.
- Provide on-going employee training in pollution prevention.

Provided below are specific procedures associated with each of the minimum BMPs along with procedures for additional BMPs that should be considered if this activity takes place at a facility located near a sensitive waterbody. In order to meet the requirements for medium and high priority facilities, the owners/operators must select, install and maintain appropriate BMPs on site. Since the selection of the appropriate BMPs is a site-specific process, the types and numbers of additional BMPs will vary for each facility.

1. **Take steps to reduce landscape maintenance requirements.**
    - Where feasible, retain and/or plant native vegetation with features that are determined to be beneficial. Native vegetation usually requires less maintenance than planting new vegetation.
    - When planting or replanting consider using low water use flowers, trees, shrubs, and groundcovers.
    - Consider alternative landscaping techniques such as naturescaping and xeriscaping.
2. **Properly store and dispose of gardening wastes.**
    - Dispose of grass clippings, leaves, sticks, or other collected vegetation as garbage at a permitted landfill or by composting.
    - Do not dispose of gardening wastes in streets, waterways, or storm drainage systems.
    - Place temporarily stockpiled material away from watercourses and storm drain inlets, and berm and/or cover.
3. **Use mulch or other erosion control measures on exposed soils.**

---

[1] EPA " *Preliminary Data Summary of Urban Stormwater Best Management Practices"*

IC7. LANDSCAPE MAINTENANCE (continued)

4. **Properly manage irrigation and runoff.**
    - Irrigate slowly or pulse irrigate so the infiltration rate of the soil is not exceeded.
    - Inspect irrigation system regularly for leaks and to ensure that excessive runoff is not occurring.
    - If re-claimed water is used for irrigation, ensure that there is no runoff from the landscaped area(s).
    - If bailing of muddy water is required (e.g. when repairing a water line leak), do not put it in the storm drain; pour over landscaped areas.
    - Use automatic timers to minimize runoff.
    - Use popup sprinkler heads in areas with a lot of activity or where pipes may be broken. Consider the use of mechanisms that reduce water flow to broken sprinkler heads.
5. **Properly store and dispose of chemicals.**
    - Implement storage requirements for pesticide products with guidance from the local fire department and/or County Agricultural Commissioner.
    - Provide secondary containment for chemical storage.
    - Dispose of empty containers according to the instructions on the container label.
    - Triple rinse containers and use rinse water as product.
6. **Properly manage pesticide and herbicide use.**
    - Follow all federal, state, and local laws and regulations governing the use, storage, and disposal of pesticides and herbicides and training of applicators and pest control advisors.
    - Follow manufacturers' recommendations and label directions.
    - Use pesticides only if there is an actual pest problem (not on a regular preventative schedule). When applicable use less toxic pesticides that will do the job. Avoid use of copper-based pesticides if possible. Use the minimum amount of chemicals needed for the job.
    - Do not apply pesticides if rain is expected or if wind speeds are above 5 mph.
    - Do not mix or prepare pesticides for application near storm drains. Prepare the minimum amount of pesticide needed for the job and use the lowest rate that will effectively control the targeted pest.
    - Whenever possible, use mechanical methods of vegetation removal rather than applying herbicides. Use hand weeding where practical.
    - Do not apply any chemicals directly to surface waters, unless the application is approved and permitted by the state. Do not spray pesticides within 100 feet of open waters.
    - Employ techniques to minimize off-target application (e.g. spray drift) of pesticides, including consideration of alternative application techniques.
    - When conducting mechanical or manual weed control, avoid loosening the soil, which could lead to erosion.
    - Purchase only the amount of pesticide that you can reasonably use in a given time period.
    - Careful soil mixing and layering techniques using a topsoil mix or composted organic material can be used as an effective measure to reduce herbicide use and watering.
7. **Properly manage fertilizer use.**
    - Follow all federal, state, and local laws and regulations governing the use, storage, and disposal of fertilizers.
    - Follow manufacturers' recommendations and label directions.
    - Employ techniques to minimize off-target application (e.g. spray drift) of fertilizer, including consideration of alternative application techniques. Calibrate fertilizer distributors to avoid excessive application.
    - Periodically test soils for determining proper fertilizer use.
    - Fertilizers should be worked into the soil rather than dumped or broadcast onto the surface.
    - Sweep pavement and sidewalk if fertilizer is spilled on these surfaces before applying irrigation water.
    - Use slow release fertilizers whenever possible to minimize leaching
8. **Incorporate the following integrated pest management techniques where appropriate:**

- Mulching can be used to prevent weeds where turf is absent.
- Remove insects by hand and place in soapy water or vegetable oil. Alternatively, remove insects with water or vacuum them off the plants.
- Use species-specific traps (e.g. pheromone-based traps or colored sticky cards).
- Sprinkle the ground surface with abrasive diatomaceous earth to prevent infestations by soft-bodied insects and slugs. Slugs also can be trapped in small cups filled with beer that are set in the ground so the slugs can get in easily.
- In cases where microscopic parasites, such as bacteria and fungi, are causing damage to plants, the affected plant material can be removed and disposed of (pruning equipment should be disinfected with bleach to prevent spreading the disease organism).
- Small mammals and birds can be excluded using fences, netting, and tree trunk guards.
- Promote beneficial organisms, such as bats, birds, green lacewings, ladybugs, praying mantis, ground beetles, parasitic nematodes, trichogramma wasps, seedhead weevils, and spiders that prey on detrimental pest species.

Training

1. **Train employees on these BMPs, storm water discharge prohibitions, and wastewater discharge requirements.**
2. **Educate and train employees on the use of pesticides and pesticide application techniques. Only employees properly trained to use pesticides can apply them.**
3. **Train and encourage employees to use integrated pest management techniques.**
4. **Train employees on proper spill containment and cleanup.**
   - Establish training that provides employees with the proper tools and knowledge to immediately begin cleaning up a spill.
   - Ensure that employees are familiar with the site's spill control plan and/or proper spill cleanup procedures.
   - BMP IC17 discusses Spill Prevention and Control in detail.
5. **Establish a regular training schedule, train all new employees, and conduct annual refresher training.**
6. **Use a training log or similar method to document training.**

Stencil storm drains

Storm drain system signs act as highly visible source controls that are typically stenciled directly adjacent to storm drain inlets. Stencils should read "No Dumping Drains to Ocean".

References

California Storm Water Best Management Practice Handbook. Industrial and Commercial. 2003. www.cabmphandbooks.com

California Storm Water Best Management Practice Handbooks. Industrial/Commercial Best Management Practice Handbook. Prepared by Camp Dresser& McKee, Larry Walker Associates, Uribe and Associates, Resources Planning Associates for Stormwater Quality Task Force. March 1993.

King County Stormwater Pollution Control Manual. Best Management Practices for Businesses. King County Surface Water Management. July 1995. On-line: http://dnr.metrokc.gov/wlr/dss/spcm.htm

Stormwater Management Manual for Western Washington. Volume IV Source Control BMPs. Prepared by Washington State Department of Ecology Water Quality Program. Publication No. 99-14. August 2001.

Water Quality Handbook for Nurseries. Oklahoma Cooperative Extension Service. Division of Agricultural Sciences and Natural Resources. Oklahoma State University. E-951. September 1999.

For additional information contact:

County of Orange
Watershed & Coastal Resources
Stormwater Program
(714)567-6363
or visit our website at:
www.ocwatersheds.com

SECTION VII

THE OCEAN BEGINS AT YOUR FRONT DOOR

Watershed & Coastal Resources Division

Public Facilities and Resources Department

Site Map | Glossary | Acronyms | News

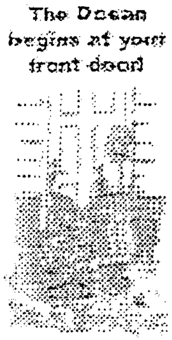
Feedback | Privacy | Search Site

Who We Are | Problem Reporting Hotline | Stormwater Program | Watersheds | [illegible] | Rainfall & Weat

- Introduction
- Brochures
- Other Materials
- Commercials
- EnviroScope ® Model
- Volunteer Information
- Test Your Environmental IQ

PROJECT Pollution PREVENTION

- Where Does It Go?
- How Is It Different From Other Forms of Water Pollution?
- Where Storm Water & Urban Runoff Pollution Comes From
- Storm Water & Urban Runoff Pollution and The Ocean


The Ocean begins at your front door

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The Ocean Begins at Your Front Door

Order Multiple Copies

Even though you live miles from the Pacific Ocean, you may be polluting it without knowing it.

Before you pour anything into the gutter or down the drain, stop and think! Storm drains go directly into channels and creeks......and through wetlands and bays to the ocean.

Did You Know...

Anything we use in our home, car and business like motor oil, paint, pesticides, fertilizers and cleaners can wind up in the street.

A little water from rain or a garden hose can carry automotive and house hold materials through the storm drain polluting bays, wetlands and the ocean. Storm drains are there to drain water off the street-not for disposal of hazardous materials.

Dumping one quart of motor oil down a storm drain contaminates 250,000 gallons of water.

Because storm drains are separate from our sewer system, Storm Water & Urban Runoff Pollution can flow into the ocean without treatment.

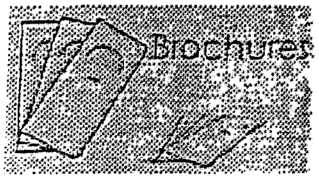
Back to Top

Where Does It Go?

These pollutants flow together on a journey from the storm drain to the flood control channel where it can eventually empty into the ocean. This type of pollution is called Storm Water & Urban Runoff Pollution and is a serious threat to the beaches and ocean of Southern California.

What Is Storm Water & Urban Runoff Pollution

Storm water runoff refers to seasonal rainfall flows. It is very noticeable during a heavy rain storm when large volumes of water drain off paved areas. Urban runoff can happen anytime of the year when excessive water use from irrigation, car washing and other sources carries litter, lawn clippings and other urban pollutants into storm drains. Even



- The Ocean Begins at Your Front Door
- Do you Know Where the Water in Your Storm Drain Goes?
- Landscape & Garden
- Pool Maintenance and the Water Quality Act
- Waste Oil Collection Centers North OC
- Waste Oil Collection Centers Central OC
- Help Prevent Ocean Pollution: Your Local Used Oil Collection Center (South County)
- Keeping Pest Control Products Out of Creeks, Rivers and the Ocean
- Carpet Cleaners
- Permitted Lot & Pool Drains Pool Maintenance
- Pet Waste
- Horses and Livestock
- Water Quality Guidelines for Car Wash Fund Raisers
- Sewage Spill Reference Guide
- Best Management Practices for Projects using Fresh Concrete or Mortar

an automobile leaking motor oil 20 miles inland can still pollute the ocean.

How Is It Different From Other Forms of Water Pollution?

SWURP can include anything that washes into the storm drain from the community.
Unlike water pollution linked to factories or sewage treatment plants, SWURP can come from city streets, neighborhoods, farms, construction sites and parking lots.

Back to Top

Where Storm Water & Urban Runoff Pollution Comes From

- Automotive leaks and spills.
- Improper disposal of used oil and other engine fluids down the storm drain.
- Metals found in vehicle exhaust, weathered paint, rust, metal plating and tires.
- Pesticides, herbicides and fertilizers from lawns, gardens and farms.
- Improper disposal of cleaners, paint and paint removers.
- Soil erosion and dust debris from landscape and construction activities.
- Litter, lawn clippings, animal waste and other organic matter.
- Oil stains on parking lots and paved surfaces.

Storm Water & Urban Runoff Pollution and The Ocean

SWURP may have a serious impact on water quality in Orange County. Pollutants from the storm drain system can harm marine life as well as coastal and wetland habitats. It can also degrade recreation areas such as beaches, harbors and bays.

Storm Water Quality Management Programs have been developed by the Orange County Public Facilities & Resources Department, local cities, and other agencies which participate in the National Pollutant Discharge Elimination System (NPDES). Their responsibilities involve encouraging the public to help protect water quality, monitoring runoff in the storm drain system, managing NPDES permit process for municipalities, investigating illegal disposals and maintaining storm drains.

The support of Orange County residents, businesses and industries is needed to improve water quality and reduce the

Help Prevent Ocean Pollution: Household Tips

Help Prevent Ocean Pollution: Proper Disposal of Household Hazardous Materials

Help Prevent Ocean Pollution: A Guide for Food Service Facilities

Help Prevent Ocean Pollution: Proper Maintenance Practices for Your Business

threat of Storm Water & Urban Runoff Pollution(SWURP). Proper use and disposal of materials we use everyday will help stop this form of pollution before it reaches the storm drain and the ocean.

Back to Top

SECTION VII

LAWN & GARDEN

WATERSHED & COASTAL RESOURCES DIVISION

Public Facilities and Resources Department

Site Map | Glossary | Acronyms | News
Feedback | Privacy | Search Site

Who We Are | Problem Reporting Hotline | Stormwater Program | Watersheds | Rainfall & We

Introduction
Brochures
Other Materials
Documents
Environscape Model
Volunteer Information
Test Your Environmental IQ

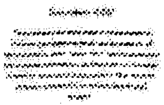
PROJECT Pollution PREVENTION

Water Quality Guidelines for Landscaping and Gardening

General Landscaping Tips

Garden & Lawn Maintenance

Pesticide Alternatives



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Lawn & Garden

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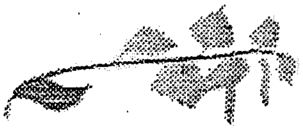


This page has been prepared to inform gardeners and landscapers of appropriate practices for landscape and garden maintenance activities in Orange County in order to protect the storm drains, channels, creeks, bays and ocean.

Remember the ocean begins at your front door.

Water Quality Guidelines for Landscaping and Gardening

This brochure is intended to explain the water quality issues regarding landscaping and the recommended procedures that should be followed by both gardeners and landscapers when conducting these activities

Landscape and garden maintenance activities can be significant contributors to water quality problems. When conducting these activities you should follow these simple guidelines to prevent discharges from entering the storm drain system where the flow untreated to the ocean.

General Landscaping Tips

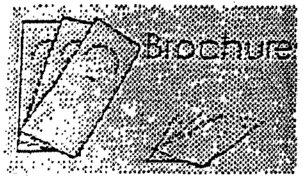
Protect stockpiles and materials from wind and rain by storing them under tarps or secured plastic sheeting.

Prevent erosion of slopes by planting fast-growing annual and perennial grasses. These will shield and bind the soil.

Plan native vegetation to reduce water, fertilizer, herbicides and pesticides needed.

Garden & Lawn Maintenance

Do not over water. Use irrigation practices such as drip irrigation, soaker hoses or micro spray systems. Periodically inspect and fix leaks and misdirected sprinklers.



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- Sewage Spill Reference Guide
- Best Management Practices for Projects using Fresh Concrete or Mortar

Do not rake or blow leaves, clippings or pruning wastes into the street, gutter or storm drains; instead dispose of waste by composting or at a permitted landfill or as green waste through your city's recycling program.

Use slow release fertilizers to minimize leaching and use organic fertilizers such as compost, peat, and mulch whenever possible.

Read labels and use only as directed. Do not over apply pesticides or fertilizers. Spot apply, rather then blanketing and entire area.

Never apply pesticides or fertilizers when rain is in the forecast.

Store pesticides, fertilizers and other chemicals in a dry covered area to prevent exposure that may result in the deterioration of containers and packaging.

Rinse empty pesticide containers and use rinse water as you would the product. Dispose of empty containers in the garbage.

Take unwanted pesticides to a household hazardous waste collection to be recycled.

Click here for your closest locations:
Waste Oil Collection Centers North OC
Waste Oil Collection Centers Central OC
Waste Oil Collection Centers South OC

If fertilizer is spilled on pavement or sidewalks, "dry" clean these surfaces before applying irrigation water.

Pesticide Alternatives

When available, use non-toxic alternatives to traditional pesticides and use pesticides specifically designed to control your pest.

Design and use an Integrated Pest Management Plan that includes:

Physical Controls - caulking holes, barriers, hand picking, and traps

Biological Controls - Predatory insects and bacterial insecticides

Chemical Controls - Last resort. Use less toxic products such as dehydrating dusts, insecticide soaps, boric acid powder, horticultural oils, or pyrethrin-based insecticides

Help Prevent Ocean Pollution: Household Tips

Help Prevent Ocean Pollution: Proper Disposal of Household Hazardous Materials

Help Prevent Ocean Pollution: A Guide for Food Service Facilities

Help Prevent Ocean Pollution: Proper Maintenance Practices for Your Business

For more information on pest control, refer to our brochure entitled "Keeping Pest Control Products Out of Creeks, Rivers and The Ocean." To obtain copies of our brochures, call our office at 714-567-6363 or visit each page of this brochure section and order copies from the link provided at the top of this page and each of the other pages.

For More Information... Questions regarding this brochure may be directed to: The Orange County Public Facilities and Resources Department's Stormwater Section at (714) 567-6363.

▨Back to Top

SECTION VII

PROPER MAINTENANCE PRACTICES FOR YOUR BUSINESS

WATERSHED & COASTAL RESOURCES DIVISION

Public Facilities and Resources Department

Site Map | Glossary | Acronyms | News
Feedback | Privacy | Search Site

Who We Are | Problem Reporting Hotline | Stormwater Program | Watersheds | [illegible] | Rainfall & Weat

[illegible]

Volunteer Information

Test Your Environmental IQ

PROJECT Pollution PREVENTION

Help Prevent Ocean Pollution:
Proper Maintenance Practices for Your Business

Order Multiple Copies

Preventing Water Pollution at your Commercial/Industrial Site

A clean ocean and healthy creeks, rivers, bays and beaches are important to Orange County. However, many landscape and building maintenance activities can lead to water pollution if you're not careful. Paint, chemicals, plant clippings and other materials can be blown or washed into storm drains that flow to the ocean. Unlike water in sanitary sewers (from sinks and toilets), water in storm drains and streets is not treated before entering our waterways.

You would never pour soap or fertilizers into the ocean, so why would you let them enter the storm drains? Follow the easy tips in this brochure to help prevent water pollution.

Some types of industrial facilities are required to obtain coverage under the State General Industrial Permit. For more information visit www.swrcb.ca.gov/stormwtr/industrial.html.

Storm Drain Awareness and Maintenance Practices

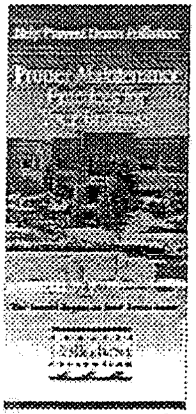
Landscape Maintenance

- Compost grass clippings, leaves, sticks and other vegetation, or dispose at a permitted landfill or in green waste containers. Do not dispose of these materials in streets, waterways or storm drains.
- Irrigate slowly and inspect the system for leaks, overspraying and runoff. Adjust automatic timers to

Preventing Water Pollution

Landscape Maintenance

Building Maintenance



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Brochures

- The Ocean Begins at Your Front Door
- Do you Know Where the Water in Your Storm Drain Goes?
- Landscape & Garden
- Pool Maintenance and the Water Quality Act
- Waste Oil Collection Centers North OC
- Waste Oil Collection Centers Central OC
- Help Prevent Ocean Pollution: Your Local Used Oil Collection Center (South County)
- Keeping Pest Control Products Out of Creeks, Rivers and the Ocean
- Carpet Cleaners
- Permitted Lot & Pool Drains Pool Maintenance
- Pet Waste
- Horses and Livestock
- Water Quality Guidelines for Car Wash Fund Raisers
- Sewage Spill Reference Guide
- Best Management Practices for Projects

avoid over-watering.

- Follow label directions for the use and disposal of fertilizers, herbicides and pesticides.
- Do not apply pesticides, herbicides or fertilizers if rain is expected within 48 hours or if wind speeds are above 5 mph.
- Do not spray pesticides within 100 feet of waterways.
- Fertilizers should be worked into the soil rather than dumped onto the surface.
- If fertilizer is spilled on the pavement or sidewalk, sweep it up immediately and place it back in the container.

Building Maintenance

- Never allow wash water, sweepings or sediment to enter the storm drain.
- Sweep up dry spills and use cat litter, towels or similar materials to absorb wet spills. Dispose in the trash.
- If you must wash your building, sidewalk or parking lot, you must contain the water. Collect the water with a shop vac, and contact your city or sanitation agency for proper disposal information. Do not let water enter the street or storm drains.
- Use drop cloths underneath outdoor painting, scraping, and sandblasting work, and properly dispose of materials in the trash.
- Use a ground cloth or oversized tub for mixing paint and cleaning tools.
- Use a damp mop or broom to clean floors.
- Cover dumpsters to block insects, animals, rainwater and sand. Keep the area around the dumpster clear of trash and debris. Do not overfill the dumpster.
- Call your trash hauler to replace leaking

using Fresh Concrete or Mortar

Help Prevent Ocean Pollution: Household Tips

Help Prevent Ocean Pollution: Proper Disposal of Household Hazardous Materials

Help Prevent Ocean Pollution: A Guide for Food Service Facilities

Help Prevent Ocean Pollution: Proper Maintenance Practices for Your Business

dumpsters.

- Do not dump any toxic substance or liquid waste on the pavement, the ground, or toward a storm drain. Even materials that seem harmless—like latex paint or biodegradable cleaners—can damage the environment.
- Recycle paints, solvents, lumber and other materials.
- Store materials indoors or under cover and away from storm drains.
- Use chemicals that can be recycled. For more information about recycling and collection centers, visit www.oclandfills.com.
- Properly label materials. Familiarize employees with Material Safety Data Sheets.

Never Dispose of Anything in the Storm Drain.

For more information, call the Orange County Stormwater Program at (714) 567-6363 or visit www.ocwatersheds.com.

To report a spill, call the Orange County 24-Hour Water Pollution Reporting Hotline at (714) 567-6363.

For emergencies dial 911.

RECYCLE
USED OIL

Back to Top

SECTION VII

DO YOU KNOW WHERE THE WATER IN THE STORM DRAIN GOES

WATERSHED & COASTAL RESOURCES DIVISION

Public Facilities and Resources Department

Site Map | Glossary | Acronyms | News
Feedback | Privacy | Search Site

Who We Are | Problem Reporting Hotline | Stormwater Program | Watersheds | [illegible] | Rainfall & Weat

Do you Know Where the Water in Your Storm Drain Goes? To The Ocean...

Order Multiple Copies

Even though you live miles from the Pacific Ocean, you may be polluting it without knowing it.

Before you pour anything into the gutter or down the drain, stop and think! Storm drains go directly into channels and creeks......and through wetlands and bays to the ocean.

Did You Know...

... that one pint of motor oil can produce an oil slick of approximately one acre on the surface of water?

...that dumping anything in the storm drain system is illegal and harmful to the environment?

How Does Orange County's Storm Drain System Work?

Unlike the sewer system, which carries water from your indoor drains to wastewater treatment plants, the storm drain system releases untreated water into channels, rivers and ultimately the ocean. To insure the safety and enjoyment of our environment, everyone's help is needed to keep the storm drain system free from harmful pollutants.

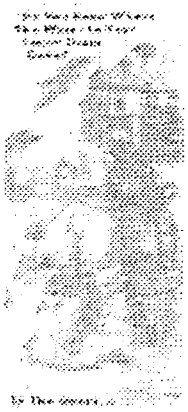
COMMON STORM DRAIN POLLUTANTS

HOME MAINTENANCE	LAWN AND GARDEN	AUTOMOBILE
• Detergents, Cleaners and Solvents • Oil and Latex Paint • Swimming Pool Chemicals • Outdoor Trash and Litter	• Pet and Animal Waste • Pesticides, Insecticides, and Herbicides • Clippings, Leaves and Soil • Fertilizer	• Oil and Grease • Radiator Fluids and Antifreeze • Cleaning Chemicals • Brake pad dust

Back to Top

PROJECT Pollution PREVENTION

Things You Can Do To Protect The Water In Your Storm Drain System



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Brochures

- The Ocean Begins at Your Front Door
- Do you Know Where the Water in Your Storm Drain Goes?
- Landscape & Garden
- Pool Maintenance and the Water Quality Act
- Waste Oil Collection Centers North OC
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- Permitted Lot & Pool Drains Pool Maintenance
- Pet Waste
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- Water Quality Guidelines for Car Wash Fund Raisers
- Sewage Spill Reference Guide
- Best Management Practices for Projects using Fresh Concrete or Mortar

Things You Can Do To Protect The Water In Your Storm Drain System

HOUSEHOLD

Some household products , such as cleaners, insect spray and weed killers, can cause pollution if allowed to drain into a storm drain. Buy household products labeled "nontoxic" whenever possible. Clean up spills with an absorbent material such as kitty litter and check with your disposal carrier or a hazardous waste collection center, for disposal recommendations.

PAINT AND SOLVENTS

Clean water-based paints from rollers, pans and brushes in sinks that go into the sewer system. Use paint thinner to remove oil-based paint from brushes and rollers, then take used thinner and left over paint to a household hazardous waste collection center, or keep the paint for touch ups, or give it to a friend.

AUTOMOTIVE

Keep your autos in good repair and watch for possible leaks. Take left over or used fluids to your household hazardous waste collection center. Clean up leaks and spills with an absorbent material such as kitty litter and check with your disposal carrier or a household hazardous waste collection center for disposal recommendations.

SWIMMING POOL AND SPA

Water containing chlorine is harmful to aquatic life. Whenever possible, drain water into the sewer system. There are established guidelines on the amount of residual chlorine, acceptable pH range, coloration, filter media and acid cleaning wastes when draining into the storm drain system, and some areas may require a permit. Check with your city or call the County at 714-567-6363 for a copy of the guidelines.

LAWN AND GARDEN

Use a broom or rake to clean up yard debris and place in trash bins; lawn clippings and leaves should be placed in recycling containers if available - or better yet, leave your grass clippings on the lawn. Follow directions carefully when using pesticides and fertilizers; don't over water or use before a rain. Pesticides and fertilizers may adversely impact our waterways.

TRASH

Place trash and litter that cannot be recycled or reused in trash cans, call your city to find out if your city has a recycling program. Whenever possible, turn trash into useful products and buy recycled products.
Remember: Reduce - Reuse -Recycle

Help Prevent Ocean Pollution: Household Tips

Help Prevent Ocean Pollution: Proper Disposal of Household Hazardous Materials

Help Prevent Ocean Pollution: A Guide for Food Service Facilities

Help Prevent Ocean Pollution: Proper Maintenance Practices for Your Business

PET CARE

Pick-up pet waste as soon as possible and put it in the trash. Pet waste has harmful bacteria that can get into our waterways. Also, follow label directions for disposal on pet care products like flea shampoo because they can be toxic.

It's Up To You. Together, you and your neighbors can make a difference to keep gutters, storm drains and waterways clean. To learn more, contact your city or one of the program participants listed in this site.

Back to Top

SECTION VII

KEEPING PEST CONTROL PRODUCTS OUT OF CREEKS, RIVERS AND THE OCEAN

WATERSHED & COASTAL RESOURCES DIVISION

Public Facilities and Resources Department

Site Map | Glossary | Acronyms | News
Feedback | Privacy | Search Site

Who We Are | Problem Reporting Hotline | Stormwater Program | Watersheds | | Rainfall & Weat

Brochures

Watershed Information

Test Your Environmental IQ

PROJECT Pollution PREVENTION

- Before Buying Pest Control Products
- Before Mixing Your Sprayer
- When You're Ready To Spray
- When You're Spraying
- When You're Done
- IPM... Outsmarting Pests While Protecting Water
- Think Ahead

Order Multiple Copies

Keeping Pest Control Products Out of Creeks, Rivers and the Ocean

This brochure is being distributed in order to reduce the impacts of pesticides on water quality. It was produced with support from the Orange County Storm Water Program, the Coalition for Urban/Rural Environmental Stewardship (CURES) and a 319(h) grant from the State Water Resources Control Board.

Before Buying Pest Control Products

- Identify the pest.
- Decide if pest control products are the best control measure or if there are alternatives available.
- Are integrated pest management guidelines available for this pest?
- Read the product label:
  - Is the pest listed on the label?
  - Is it the best product for the pest?

Before Mixing Your Sprayer

- Read the label carefully.
- Buy only enough pesticide to treat the area affected by the pest.
- Check the weather and don't apply if it's windy or about to rain
- Measure the area you're treating.
- Calculate how much spray to mix.
- Wear long sleeve shirt, long pants, shoes and any other protective equipment listed on the label and follow all the label precautions.
- Be prepared for spills and know how to clean them up.

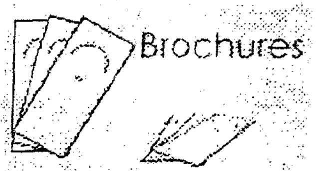
When You're Ready To Spray

- Mix and load spray in an area where any spilled pesticide will not be able to drain or be washed away into storm drains, ditches, streams, ponds or other bodies of water.
- Mix sprayer on grass, not the sidewalk or driveway.
- Mix only as much as needed.

When You're Spraying

- AVOID spraying in or near storm drains, ditches, streams, and ponds!
- Leave an untreated strip around these areas to protect the water.

When You're Done



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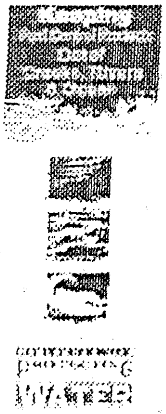

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- Never dump leftovers down any drain; Save for a future application.
- Triple-rinse sprayer and apply rinsewater to treated area.
- Take any old or unwanted pesticides to a Household Hazardous Waste Collection Center (714) 834-6752.

IPM... Outsmarting Pests While Protecting Water

With Integrated Pest Management (IPM), homeowners use common sense and nature to make it difficult for pests to survive. IPM techniques include cultural practices (such as mulching to prevent weeds), encouraging natural enemies (good bugs), and judicious use of pest control products.

- First, identify your pest problem. To find the best solution, you need to pin down the problem. Consult gardening books, your county cooperative extension office or your local nursery.
- Decide how much pest control is necessary. If you can live with some pest damage, you can avoid intensive pest control product treatments.
- Choose an effective option. Try various types of controls first: washing bugs off plants, pruning diseased parts of plants. If you need to use pest control products, choose one that targets the problem and poses the least hazard.
- Finally, it's easier to prevent pests than to control them.

Think Ahead
Original graphics developed with support from:
Coalition For Urban/Rural Environmental Stewardship (CURES)
Western Crop Protection Association (WCPA)
Responsible Industry for a Sound Environment (RISE)

Back to Top

Help Prevent Ocean Pollution: Household Tips

Help Prevent Ocean Pollution: Proper Disposal of Household Hazardous Materials

Help Prevent Ocean Pollution: A Guide for Food Service Facilities

Help Prevent Ocean Pollution: Proper Maintenance Practices for Your Business

SECTION VII

SEWAGE SPILL REFERENCE GUIDE - YOUR RESPONSIBILITY AS A PRIVATE PROPERTY OWNER

Sewage Spill Reference Guide - Your Responsibility as a Private Property Owner

Order Multiple Copies

Sewage Spill Reference Guide

This page has been produced to inform residents, businesses, and homeowners about the causes of, prevention of, and proper response to sewage spills.

What is a Sewage Spill?

Sewage spills occur when the wastewater being transported via underground pipes overflows through a manhole, cleanout, or broken pipe. Sewage spills can cause health hazards, damage to homes and businesses, and threaten the environment, local waterways, and beaches.

Back to Top

Common Causes of Sewage Spills

Grease builds up inside and eventually blocks sewer pipes. Grease gets into the sewer from food establishments, household drains, as well as from poorly maintained commercial grease traps and interceptors. Grease is the most common cause of pipe blockages.

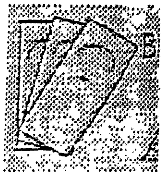
Structure problems caused by tree roots in the lines, broken/cracked pipes, missing or broken cleanout caps, or undersized sewers can cause blockages.

Infiltration and inflow (I/I) impacts pipe capacity and is caused when groundwater or rainwater enters the sewer system through pipe defects and illegal connections.

You Are Responsible for a Sewage Spill Caused by a Blockage or Break in Your Sewer Lines!

Time is of the essence in dealing with sewage spills. You are required to immediately:

Control and minimize the spill. Keep spills contained on private property and out of gutters, storm drains, and public waterways by shutting off or not using the water.



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- Sized correctly and designed to handle the expected amount of grease.
- Installed properly per local codes.
- Maintained properly, cleaned and serviced regularly.

How You Can Prevent Sewage Spills

1. Never put grease down garbage disposals, drains, or toilets.
2. Perform periodic cleaning to eliminate grease, debris and roots in your service laterals.
3. Repair any structural problems in your sewer system and eliminate any rainwater infiltration/inflow leaks into your service laterals.

Sewage spills can cause damage to the environment.
Help prevent them!

Back to Top

Orange County Agency Responsibilities

- City Sewer/Public Works Departments—
  Responsible for protecting city property and streets, the local storm drain system, sewage collection system and other public areas.
- Public Sewer/Sanitation District—
  Responsible for collecting, treating, and disposing of wastewater.
- County of Orange Health Care Agency—
  Responsible for protecting public health by closing ocean/bay waters and may close food-service businesses if a spill poses a threat to public health.
- Regional Water Quality Control Boards—
  Responsible for protecting State waters.
- Orange County Stormwater Program—
  Responsible for preventing harmful pollutants from being discharged or washed by stormwater runoff into the municipal stormdrain system, creeks, bays and the ocean.

You Could Be Liable for Not Protecting the Environment

Local and state agencies have legal jurisdiction and enforcement authority to ensure that sewage spills are remedied.

They may respond and assist with containment, relieving pipe blockages, and/or clean-up of the sewage spill, especially if the spill is flowing into storm drains or onto public property.

A property owner may be charged for costs incurred by these agencies responding to spills from private properties.

Back to Top

Sewage Spill Regulatory Requirements

Allowing sewage to discharge to a gutter or storm drain may subject you to penalties and/or out-of-pocket costs to reimburse cities or public agencies for clean-up efforts. Here are the pertinent codes, fines, and agency contact information that apply.

Orange County Stormwater Program
24 Hour Water Pollution Reporting Hotline
(714) 567-6363

- County and city water quality ordinances prohibit discharges containing pollutants.

Orange County Health Care Agency
Environmental Health
(714) 667-3600

California Health and Safety Code, Sections 5410-5416

- No person shall discharge raw or treated sewage or other waste in a manner that results in contamination, pollution, or a nuisance.
- Any person who causes or permits a sewage discharge to any state waters:
  - must immediately notify the local health agency of the discharge.
  - shall reimburse the local health agency for services that protect · the public's health and safety (water-contact receiving waters).
  - who fails to provide the required notice to the local health agency is guilty of a misdemeanor and shall be punished by a fine (between $500–$1,000) and/or imprisonment for less than one year.

Regional Water Quality Control Board
Santa Ana Region (909) 782-4130
San Diego Region (858) 467-2952

- Requires the prevention, mitigation, response to and reporting of sewage spills.

California Office of Emergency Services
(800) 852-7550

California Water Code, Article 4, Chapter 4, Sections 13268-13271
California Code of Regulations, Title 23, Division 3, Chapter 9.2, Article 2, Sections 2250-2260

- Any person who causes or permits sewage in excess of 1,000 gallons to be discharged to state waters shall immediately notify the Office of Emergency Services.
- Any person who fails to provide the notice required by this section is guilty of a misdemeanor and shall be punished by a fine (less than $20,000) and/or imprisonment for not more than one year.

Back to Top

Report Sewage Spills!

City Sewer/Public Works Departments

Aliso Viejo	(949) 425-2500
Anaheim	(714) 765-6840
Brea	(714) 990-7691
Buena Park	(714) 562-3655
Costa Mesa	(714) 754-5248
Cypress	(714) 229-6760
Dana Point	(949) 248-3562
Fountain Valley	(714) 593-4600
Fullerton	(714) 738-6897
Garden Grove	(714) 741-5956
Huntington Beach	(714) 960-8861
Irvine	(949) 724-6515
Laguna Beach	(949) 497-0765
Laguna Hills	(949) 707-2650
Laguna Niguel	(949) 362-4337
Laguna Woods	(949) 639-0500
La Habra	(562) 905-9792
La Palma	(714) 690-3368
Lake Forest	(949) 461-3480
Los Alamitos	(562) 431-3538
Mission Viejo	(949) 470-3095
Newport Beach	(949) 644-3011
Orange	(714) 532-6480
Orange County	(714) 567-6363
Placentia	(714) 993-8245
San Clemente	(949) 366-1553
San Juan Capistrano	(949) 443-6363
Santa Ana	(714) 647-3380
Seal Beach	(562) 431-2527
Stanton	(714) 288-6742

Tustin	(714) 962-2411
Villa Park	(714) 998-1500
Westminster	(714) 898-3311
Yorba Linda	(714) 961-7170

Public Sewer Districts

Costa Mesa Sanitary District	(714) 754-5252
	(714) 393-4433
El Toro Water District	(949) 837-0660
Emerald Bay Service District	(949) 494-8571
Garden Grove Sanitary District	(714) 741-5395
Irvine Ranch Water District	(949) 453-5300
Los Alamitos/Rossmoor Sewer District	(562) 431-2223
Midway City Sanitary District (Westminster)	(714) 893-3553
Moulton Niguel Water District	(949) 831-2500
Orange County Sanitation District	(714) 962-2411
Santa Margarita Water District	(949) 459-6420
South Coast Water District	(949) 499-4555
South Orange County Wastewater Authority	(949) 234-5400
Sunset Beach Sanitary District	(562) 493-9932
Trabuco Canyon Sanitary District	(949) 858-0277
Yorba Linda Water District	(714) 777-3018

Other Agencies

Orange County Health Care Agency	(714) 667-3600
Office of Emergency Services	(800) 852-7550

This page has been prepared to inform residents, businesses, and homeowners in Orange County about the causes of, prevention of, and proper response to sewage spills in order to protect the water quality in storm drains, channels, creeks, bays and ocean.

October 2003

Back to Top

APPENDIX A

APPENDIX B

APPENDIX C

HYDROLOGY & HYDRAULIC CALCULATIONS

200-320 WEST COAST HIGHWAY
CITY OF NEWPORT BEACH

PREPARED BY:

ANACAL ENGINEERING CO.
CIVIL ENGINEERING & LAND SURVEYING
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PREPARED FOR:

GLEN VENDULT
1775 NEWPORT BLVD. STE. 'B'
COSTA MESA, CA. 92626
PH.: (949) 645-9000

PREPARED UNDER THE SUPERVISION OF:

DAVID C. QUEYREL RCE 42812 EXP. 3/31/12

TABLE OF CONTENTS

EXHIBITS

PURPOSE:
THE PURPOSE OF THIS REPORT IS TO PROVIDE A RUN-OFF STUDY BASED ON ORANGE COUNTY DESIGN CRITERIA . THE PROJECT IS DESIGNED TO MAINTAIN EXISTING DRAINAGE PATTERNS AND TO EXISTING DRAINAGE FACILITIES DESIGNED FOR THE PROJECT AREA.. THE REPORT IS TO INDICATE MAXIMUM WATER SURFACE ELEVATIONS BASED ON THE 10 YR. WATER SURFACE AND THAT PEAK DISCHARGE WILL BE ANALIZED TO CHECK FOR EFFECTS ON PROPOSED FACILITIES AND TO MAINTAIN DRAINAGE CONSISTENT WITH THE EXISTING CONDITIONS. THE 100 YEAR OVERFLOW WILL BE DIRECTED TO THE STREET THROUGH THE PROJECT DRIVEWAY.

WATERSHED DESCRIPTION:
THE PROPERTY IS LOCATED IN A MIXED USE OF RESIDENTIAL AND COMMERCIAL AREA AND IS SURROUNDED BY EXISTING DEVELOPMENT. THE PROPERTY GAINS ACCESS VIA HARBOR BLVD., AND CINNAMON AVE.

THE EXISTING DRAINAGE PATTERN IS NORTHERLY ALONG THE EXISTING STREETS TO AN EXISTING STORM DRAIN FACILITY BUILT FOR THIS DRAINAGE.

THE DRAINAGE PATTERNS WILL BE MAINTAINED WITHOUT INCREASING DRAINAGE OR CONCENTRATING DRAINAGE ON NEIGHBORING PROPERTIES. THE AREA DRAINS TO THE SANTA ANA RIVER WATERSHED WHICH IS LISTED AS IMPAIRED BY PATHOGENS ON THE 2006 303(d) LIST FOR IMPAIRED WATERBODIES.

METHODOLOGY:
THIS REPORT IS TO PROVIDE A RUN-OFF STUDY TO SHOW EFFECTS OF DEVELOPMENT ON THE EXISTING DRAINAGE FACILITIES USING A DESIGN STORM OF 10 & 100 YR. FREQUENCY. THE REPORT CONSIDERS THE 100 YR. STORMS EMERGENCY RELEASE TO THE STREETS.

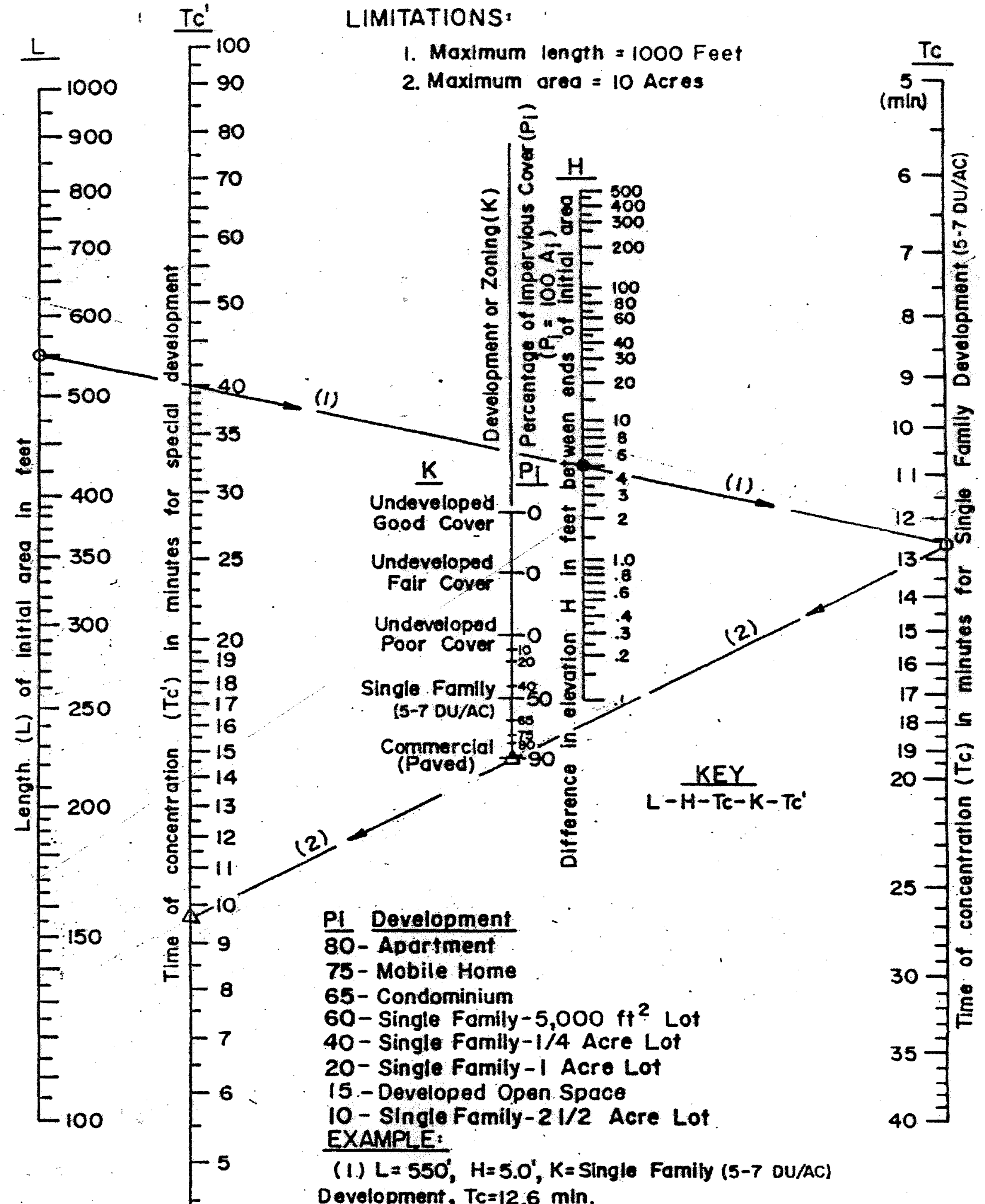
SUMMARY:
THIS REPORT SHOWS THAT THE WATER GENERATED BY THE 10 YEAR STORM WILL BE SAFELY CONVEYED TO IN THE EXISTING SYSTEM WITH A MINOR INCREASE OF DRAINAGE.

THE Q100 OVERFLOW IS SHOWN TO BE BELOW PAD ELEVATIONS AND TO BE DIRECTED TO THE STREET AWAY FROM STRUCTURES.


SITE
NEWPORT BEACH
CHANNEL
BAY

LIMITATIONS:

1. Maximum length = 1000 Feet
2. Maximum area = 10 Acres



KEY
L-H-Tc-K-Tc'

P_I	Development
80	Apartment
75	Mobile Home
65	Condominium
60	Single Family-5,000 ft^2 Lot
40	Single Family-1/4 Acre Lot
20	Single Family-1 Acre Lot
15	Developed Open Space
10	Single Family-2 1/2 Acre Lot

EXAMPLE:

(1) L=550', H=5.0', K=Single Family (5-7 DU/AC) Development, Tc=12.6 min.

(2) L=550', H=5.0', K=Commercial Development, Tc=9.7 min.

ORANGE COUNTY

HYDROLOGY MANUAL

TIME OF CONCENTRATION
NOMOGRAPH
FOR INITIAL SUBAREA

Figure D-1

ORANGE COUNTY HYDROLOGY MANUAL

STUDY NAME: 100-300 WEST COAST HWY.

10 - YEAR STORM RATIONAL METHOD STUDY

Calculated by: David C. Q. Date 2/26/2011

Checked by: David C. Q. Date 2/26/2011

Concentration Point	Area (Acres)		Soil Type	Dev. Type	T_t min.	T_c min.	I in/hr	F_m in/hr	F_m avg.	Q total	Flow Path Length ft.	Slope ft./ft.	V ft./sec.	Hydraulics and Notes
	Subarea	Total												
1A	**0.13**	**0.13**	**A**	UND	---	**5.0**	**4.06**	**0.40**	**0.40**	**0.4**	65	0.600	---	Initial Subarea
					2.0						120	0.015	1.00	Sheet Flow
2A	**0.30**	**0.43**	**A**	COM		**7.0**	**3.35**	**0.06**	**0.16**	**1.2**				
														8" PVC PIPE, n=0,01, VD=2.6
					---						100	0.6	---	Initial Subarea
1B	**0.30**	**0.30**	**A**	UND		**5.0**	**4.06**	**0.40**	**0.40**	**1.0**				
					2.7						245	0.015	1.50	8" PVC PIPE, n=0.01, VD=5.6'
2B	**0.45**	**0.75**	**A**	COM		**7.7**	**3.17**	**0.06**	**0.16**	**2.0**				

ORANGE COUNTY HYDROLOGY MANUAL

STUDY NAME: **100-300 WEST COAST HWY.**

100 - YEAR STORM RATIONAL METHOD STUDY

Calculated by: David C. Q. Date 2/26/2011

Checked by: David C. Q. Date 2/26/2011

Concentration Point	Area (Acres)		Soil Type	Dev. Type	T_t min.	T_c min.	I in/hr	F_m in/hr	F_m avg.	Q total	Flow Path Length ft.	Slope ft./ft.	V ft./sec.	Hydraulics and Notes
	Subarea	Total												
1A	**0.13**	**0.13**	**A**	UND	---	**5.0**	**6.19**	**0.40**	**0.40**	**0.7**	65	0.600	---	Initial Subarea
					2.0						120	0.015	1.00	Sheet Flow
2A	**0.30**	**0.43**	**A**	COM		**7.0**	**5.10**	**0.06**	**0.16**	**1.9**				8" PVC PIPE, n=0.01, VD=2.6
					---						100	0.6	---	Initial Subarea
1B	**0.30**	**0.30**	**A**	UND		**5.0**	**6.19**	**0.40**	**0.40**	**1.6**				
					2.7						245	0.015	1.50	8" PVC PIPE, n=0.01, VD=5.6'
2B	**0.45**	**0.75**	**A**	COM		**7.7**	**4.83**	**0.06**	**0.16**	**3.2**				

ORANGE COUNTY HYDROLOGY MANUAL	**STUDY NAME:** 100-300 WEST COAST HWY. PROPOSED **10** - YEAR STORM RATIONAL METHOD STUDY	Calculated by: David C. Q. Date 2/26/2011 Checked by: David C. Q. Date 2/26/2011

Concentration Point	Area (Acres)		Soil Type	Dev. Type	T_t min.	T_c min.	I in/hr	F_m in/hr	F_m avg.	Q total	Flow Path Length ft.	Slope ft./ft.	V ft./sec.	Hydraulics and Notes
	Subarea	Total												
1A	**0.13**	**0.13**	**A**	UND	---	**5.0**	**4.06**	**0.40**	**0.40**	**0.4**	65	0.600	---	Initial Subarea
					2.0						120	0.015	1.00	Sheet Flow
2A	**0.30**	**0.43**	**A**	COM		**7.0**	**3.35**	**0.06**	**0.16**	**1.2**				8" PVC PIPE, n=0.01, VD=2.6
1B	**0.30**	**0.30**	**A**	UND	---	**5.0**	**4.06**	**0.40**	**0.40**	**1.0**	100	0.6	---	Initial Subarea
					2.7						245	0.015	1.50	8" PVC PIPE, n=0.01, VD=5.6'
2B	**0.45**	**0.75**	**A**	COM		**7.7**	**3.17**	**0.06**	**0.16**	**2.0**				

ORANGE COUNTY HYDROLOGY MANUAL

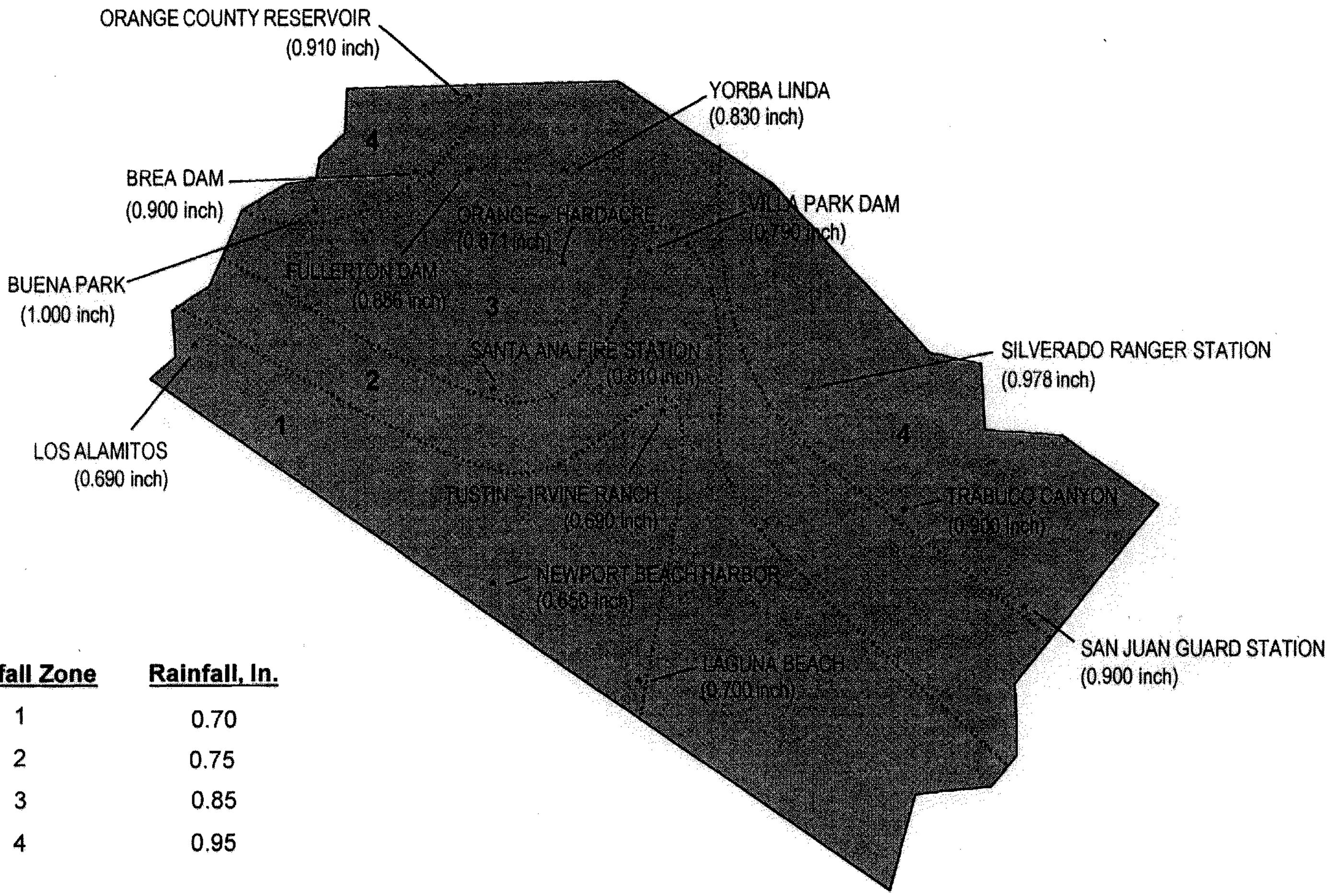
STUDY NAME: 100-300 WEST COAST HWY. PROPOSED

100 - YEAR STORM RATIONAL METHOD STUDY

Calculated by: David C. Q. Date 2/26/2011

Checked by: David C. Q. Date 2/26/2011

Concentration Point	Area (Acres)		Soil Type	Dev. Type	T_t min.	T_c min.	I in/hr	F_m in/hr	F_m avg.	Q total	Flow Path Length ft.	Slope ft./ft.	V ft./sec.	Hydraulics and Notes
	Subarea	Total												
1A	**0.13**	**0.13**	**A**	UND	---	**5.0**	**6.19**	**0.40**	**0.40**	**0.7**	65	0.600	---	Initial Subarea
					2.0						120	0.015	1.00	Gutter & 8" Pipe Flow
2A	**0.30**	**0.43**	**A**	COM		**7.0**	**5.10**	**0.04**	**0.15**	**1.9**				8" PVC PIPE, n=0.01, VD=2.6
					---						100	0.6	---	Initial Subarea
1B	**0.30**	**0.30**	**A**	UND		**5.0**	**6.19**	**0.40**	**0.40**	**1.6**				
					2.7						245	0.015	1.50	Gutter & 8" Pipe Flow
2B	**0.45**	**0.75**	**A**	COM		**7.7**	**4.83**	**0.04**	**0.15**	**3.2**				8" PVC PIPE, n=0.01



Rainfall Zone	Rainfall, In.
1	0.70
2	0.75
3	0.85
4	0.95

Figure A-1
Orange County California
Precipitation Stations
24-hour, 85th percentile rainfall

HYDROLOGY / HYDRAULICS

AREA A

POINT 1A - Q_{10} = 0.4 CFS (OFF-SITE SLOPE AREA)
Q_{100} = 0.7 CFS

TO CONCRETE V-DITCH
5% MIN

SAY D_H = 0.5' $Q_{CAP} = \frac{1.486(0.25)^{5/3}(.05)^{1/2}}{.015\ (1.4)^{2/3}} = \underline{1.7}$ 70.7
OK

Q_{100} OVERFLOW TO STREET

PROVIDE 4" OUTLET TO CURB

POINT 2A Q_{10} = 0.80 CFS
Q_{100} = 1.20 CFS

PROVIDE (2) 4" CURB DRAINS

CAPACITY (1) 4" @ 2% = $\frac{0.463}{.01}(.33)^{8/3}(.02)^{1/2} = \underline{0.4}$ CFS

BY: DAVID C QUEYREL
DATE: 2-26-11
SCALE:
JOB# 10028

PROJECT ENGINEER
ANACAL ENGINEERING CO.
CIVIL ENGINEERING & LAND SURVEYING
1900 E. LA PALMA AVE. ~ SUITE 202 ~
ANAHEIM, CALIFORNIA 92805
PHONE: (714)774-1763 FAX: (714)774-4690

LOCATION
100-300 W COAST HWY

SHEET NO. 1 OF 4

BMP CALCULATIONS

AREA A (ON-SITE)

A = 0.30 AC   RAINFALL ZONE 1 ⇒ 0.70 IN.

SQDF = C I A = 0.83(0.20) 0.30 = $\underline{0.05}$ IN/HR

SQDY = C I A = 0.83(0.70)(0.30 AC) × 1/12 × 43,560

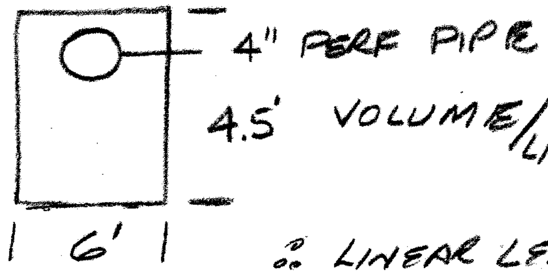
= $\underline{632}$ CF

∴ DESIGN FILTER FOR 0.05 IN/HR = $\underline{22.5}$ GAL/min

DRAIN PAC FILTER = 45 GPM/SF OK

DESIGN VOLUME OF INFILTRATION TRENCH

TYPICAL TRENCH



VOLUME/LF $6' \times 4.5' \times \underset{VOIDS}{0.4} \times 1FT = \underline{10.8}$

∴ LINEAR LENGTH REQ = $\frac{632}{10.8}$ = $\underline{58}$ LF

PROVIDED ALONG PROTECT FRONTAGE

BY: DCQ		PROJECT ENGINEER **ANACAL ENGINEERING CO.** CIVIL ENGINEERING & LAND SURVEYING 1900 E. LA PALMA AVE. ~ SUITE 202 ~ ANAHEIM, CALIFORNIA 92805 PHONE: (714)774-1763 FAX: (714)774-4690	LOCATION PCH
DATE: 2-26-11			
SCALE:	JOB# 10028		SHEET NO. 3 OF 4

BMP CALCULATIONS (CONT.)

AREA 13 (ON-SITE)

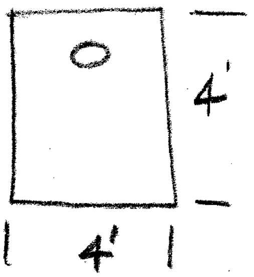
A = 0.45 AC RAINFALL ZONE 1 = 0.70"

SQDF = CIA = 0.83 (0.2) 0.45 = 0.07 IN/HR

SQDV = CIA = 0.83 (0.70)(0.45) × 1/2 × 43560
= 949

∴ DESIGN FILTER FOR 0.07 IN/HR = 32 GPM
1'×1' DRAIN PAC LINER CAPACITY = 45 GPM OK

DESIGN VOLUME OF INFILTRATION TRENCH



$VOLUME/_{LF} = 4' \times 4' \times 0.4_{VOIDS} = 6.4\ CF/_{LF}$

$\therefore$ LINEAR LENGTH REQ. = $\frac{949}{6.4}$ = 148 LF

PROVIDE ALONG PROJECT FRONTAGE

BY: DCQ		PROJECT ENGINEER **ANACAL ENGINEERING CO.** CIVIL ENGINEERING & LAND SURVEYING 1900 E. LA PALMA AVE. ~ SUITE 202 ~ ANAHEIM, CALIFORNIA 92805 PHONE: (714)774-1763 FAX: (714)774-4690	LOCATION PCH
DATE: 2-26-11			
SCALE:	JOB# 1002E		SHEET NO. 4 OF 4

NON-WOVEN POLYPROPYLENE FILTER CLOTH

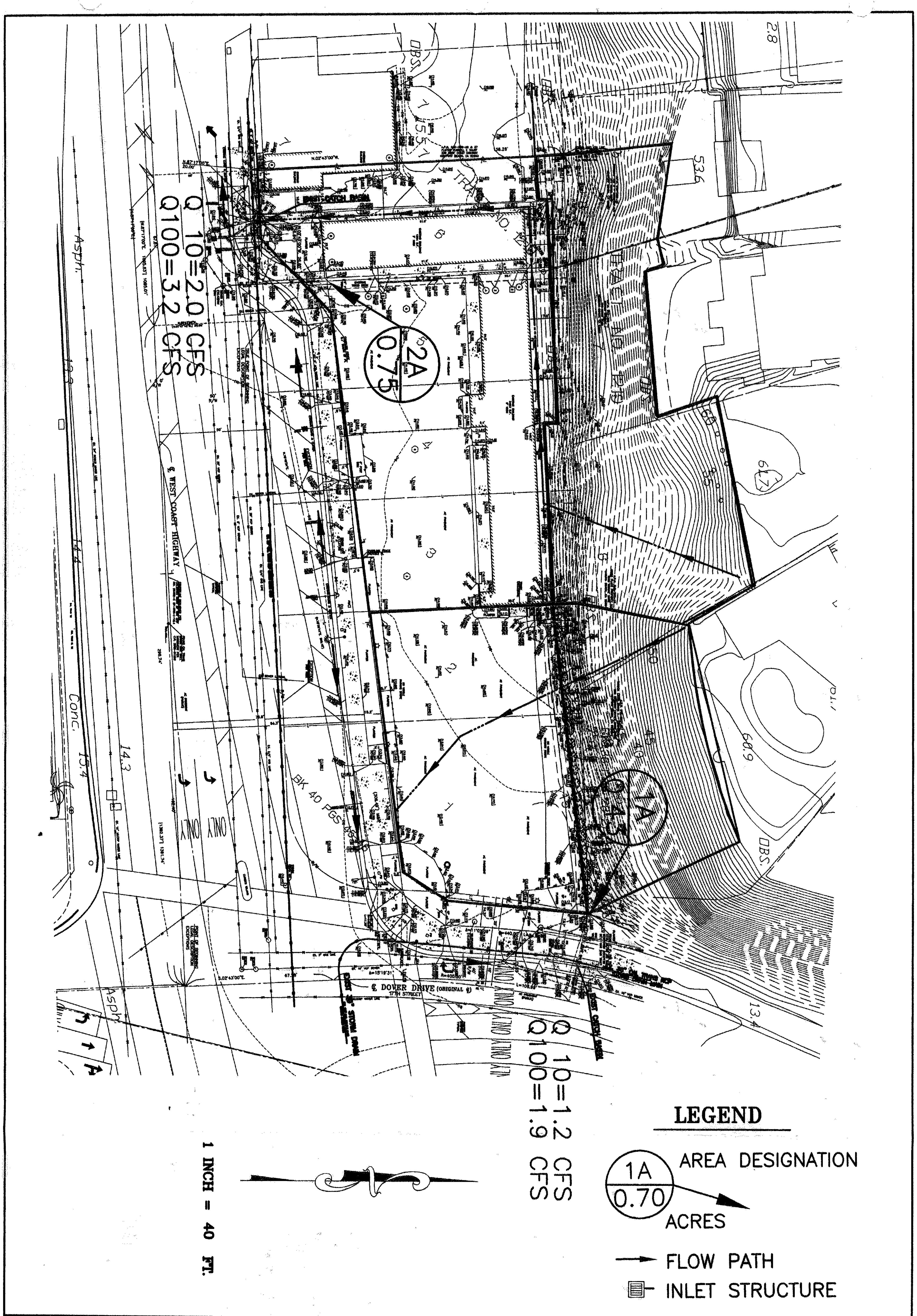
Technical Data

16 oz. Specifications

PROPERTY	TEST	Value
Weight	ASTM D 3776^1	16.0
(oz./sq yd)	ASTM D 3776^2	15.0
~~Thickness (mils)~~	ASTM D 1777^2	150
Tensil (lbs.)	ASTM D 4632^2	425
Elongation (%)	ASTM D 4632^2	50
Puncture (lbs.)	ASTM D 4833^2	250
Mullen Burst (psi)	ASTM D 3786^2	750
Trapezoidal Tear (lbs.)	ASTM D 4533^2	165
Permeability (cm/sec)	ASTM D 4491^2	0.25
Permittivity (sec. –1)	ASTM D 4491^2	0.6
Flow Rate (gal/sq ft./min)	ASTM D 4491^2	45
EOS (AOS – US std sieve)	ASTM D 4751^2	120
UV Resistance (% Strength retention hrs of exposure – 150)	ASTM D 4355^2	70

1 = Typical

2 = Minimum Average



LEGEND

1A / 0.70 AREA DESIGNATION
ACRES

→ FLOW PATH

▤ INLET STRUCTURE

EXISTING HYDROLOGY PLAN

MARINER'S MILE
100–320 WEST COAST HIGHWAY

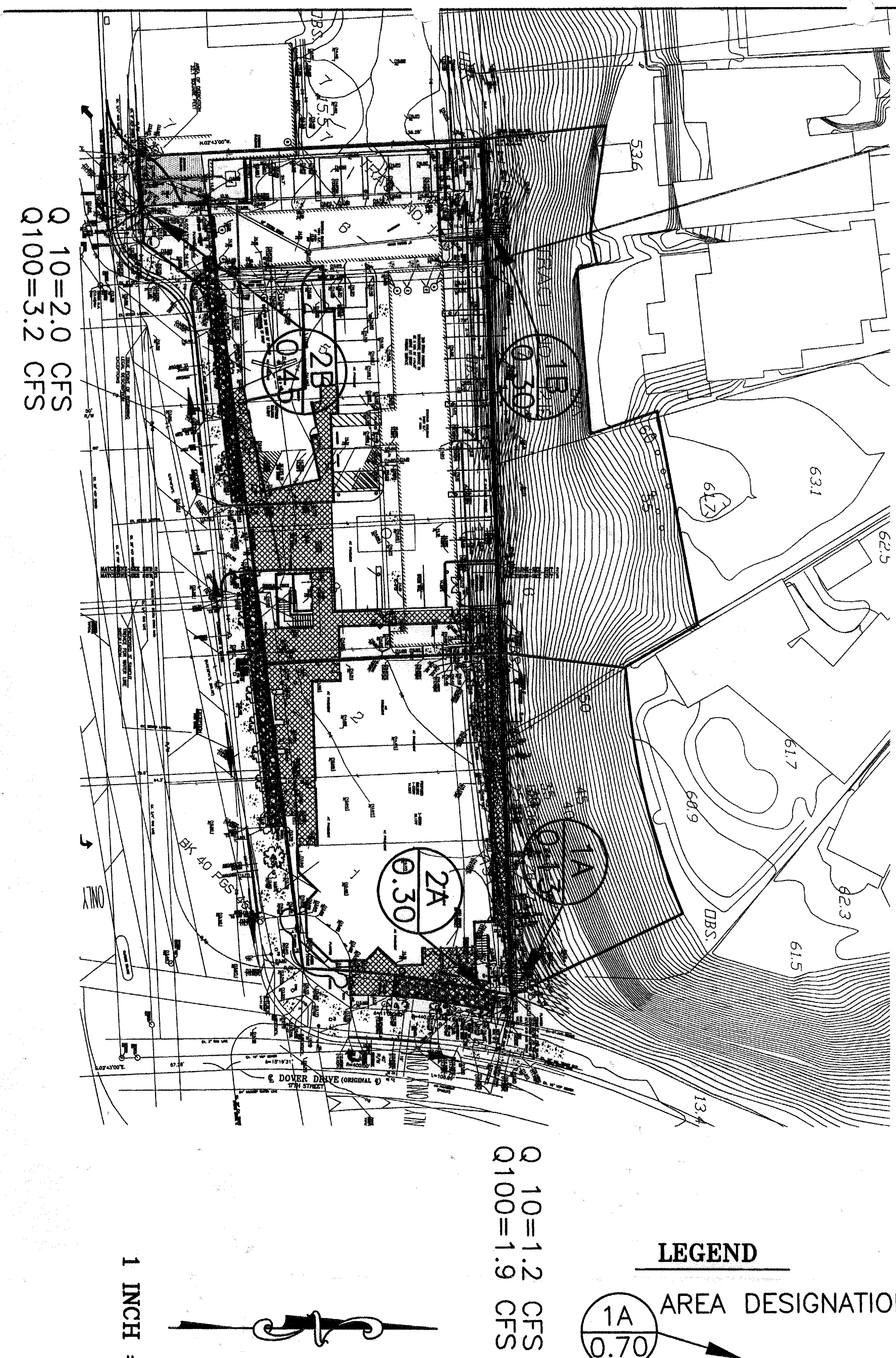
NEWPORT BEACH, CA.

SURVEYOR'S NAME & FIRM NAME:
DWN. BY: G. A. G.
JOB NO.

ANACAL ENGINEERING CO.
CIVIL ENGINEERING & LAND SURVEYING
1900 E. LA PALMA AVE. ~ SUITE 202 ~
ANAHEIM, CALIFORNIA 92805
PHONE :(714)774–1763 FAX:(714)774–4690
E-MAIL ADDRESS:anacal@anacalengineering.com

DAVID C. QUEYREL	42812	3/31/10
CIVIL ENGINEER:	LICENSE NO.	EXP. DATE

ANACAL
ENG
Civil Engineering and L



1 INCH = 40 FT.

LEGEND

1A / 0.70	AREA DESIGNATION / ACRES
→	FLOW PATH
▤	INLET STRUCTURE

PROPOSED HYDROLOGY PLAN

MARINER'S MILE

200–320 WEST COAST HIGHWAY

NEWPORT BEACH, CA.

SURVEYOR'S NAME & FIRM NAME:
DWN. BY: G. A. G.
JOB NO.

ANACAL ENGINEERING CO.
CIVIL ENGINEERING & LAND SURVEYING
1900 E. LA PALMA AVE. ~ SUITE 202 ~
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E-MAIL ADDRESS:anacal@anacalengineering.com

CIVIL ENGINEER:	LICENSE NO.	EXP. DATE
DAVID C. QUEYREL	42812	3/31/10

Appendix G.
Shared Parking Analysis

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LSA

LSA ASSOCIATES, INC.
20 EXECUTIVE PARK, SUITE 200
IRVINE, CALIFORNIA 92614

949.553.0666 TEL
949.553.8076 FAX

BERKELEY
CARLSBAD
FORT COLLINS

FRESNO
PALM SPRINGS
POINT RICHMOND

RIVERSIDE
ROCKLIN
SAN LUIS OBISPO
SOUTH SAN FRANCISCO

March 30, 2011

Tod Ridgeway
Ridgeway Development
2804 Lafayette Avenue
Newport Beach, CA 92663

Subject: Shared Parking Analysis: Mariner's Pointe

Dear Mr. Ridgeway:

LSA Associates Inc. (LSA) is pleased to submit this analysis of the parking availability and demand at Mariner's Pointe, which is located on West Coast Highway at Dover Drive in the City of Newport Beach (City). The purpose of this analysis is to evaluate the on-site parking supply versus the demand that will occur for parking throughout the day. The Mariner's Pointe site is proposed to contain a mix of retail stores, a medical office suite, and restaurants in 23,015 square feet (sf) of building area with an attached three-level parking garage. LSA evaluated the parking demand generated by each of these uses and compared that demand to proposed on-site parking spaces, valet parking spaces, and potential off-site parking spaces.

Parking Supply

The site plan for Mariner's Pointe includes plans for a proposed three-story parking garage. The parking garage plans include 33 standard stalls and 2 handicapped stalls on the ground floor (total of 35 spaces). On the second floor of the parking garage would be 24 standard stalls, 1 handicapped stall, 8 tandem stalls (16 spaces) to be used by employees or valet operations, and 5 valet only stalls during valet operations (total of 46 spaces). The third floor of the parking structure provides 18 standard stalls, 2 handicapped stalls, 15 tandem stalls (30 spaces) to be used by employees or valet operations, and 5 valet only stalls during valet operations (total of 55 spaces). Valet operations are planned to begin at 10:00 a.m. and continue until 11:00 p.m. Prior to beginning valet operations, 78 parking spaces are provided on-site. During valet operations, 136 parking spaces are provided on-site. It should be noted that the applicant's valet parking service can park additional vehicles on the second and third floors. However, the 136-space limit was determined using the City's "move one to get one" rule for valet parking plans.

In addition to the parking spaces available on site, the applicant is seeking an agreement to provide up to 20 off-site parking spaces. The parking spaces would be located at the intersection of Dover Drive and Cliff Drive. Mariner's Pointe employees would utilize the off-site parking spaces after 5:00 p.m.

It should be noted that two Orange County Transportation Authority (OCTA) bus lines operate in the vicinity of Mariner's Pointe. Route 1 operates along Pacific Coast Highway between San Clemente and Long Beach. Service on Route 1 to/from the project is provided approximately once an hour between 6:00 a.m. and 9:00 p.m. Northbound Route 1 stops immediately adjacent to the project site. Route 55 operates between Fashion Island and the Santa Ana Civic Center and serves the property on

Dover Drive. Service is provided approximately every 20 to 30 minutes between 5:00 a.m. and 10:00 p.m.

Parking Demand

The City established minimum parking requirements in Newport Beach Municipal Code (NBMC) 20.66.030. The City requires 1 parking space for every 200 sf of gross area for medical and dental offices and 1 parking space for every 250 sf of gross area for retail sales. Mariner's Pointe does not qualify for the reduced parking provisions for shopping centers found in NBMC 20.40.050. Parking requirements for eating and drinking establishments are set by the City Planning Commission using criteria identified in NBMC 20.40.060. Unlike parking requirements for most land uses that are dependent on gross square feet, parking requirements for eating and drinking establishments are dependent on net public area. Requirements can range from 1 space per 30 sf of net public area to 1 space per 50 sf of net public area, depending on the number and arrangement of tables, presence of live entertainment, etc. For the purposes of this analysis, a parking requirement of 1 space per 50 sf of net public area was used.

LSA conducted an initial analysis using size calculations found on the Mariner's Pointe site plan dated February 24, 2011. As a result of this initial analysis, the applicant reduced the gross area designated for restaurant use and increased the area designated for retail sales. Table A provides the revised allocation of restaurant, retail, and medical/dental office space. The table also provides the number of spaces each land use would require if it were in separate parcels.

Table A: Parking Requirements

Land Use	Gross Square Feet[1]	Leasable Restaurant Area (sf)	Net Public Area[2] (sf)	Parking Rate[3]	Required Parking[4]
Restaurant	9,522	8,280	4,968	1 per 50 sf [5]	100
Retail	10,493	n/a	n/a	1 per 250 sf	42
Medical Office	3,000	n/a	n/a	1 per 200 sf	15
Total	23,015				157

[1] Gross square feet of restaurant includes enclosed outside area behind R-103 and R-204.
[2] Estimated as 60 percent of net restaurant area consistent with the project description.
[3] From NBMC 20.40.040.
[4] NBMC 20.40.030.E requires fractional spaces to be rounded up.
[5] NBMC 20.40.060 allows the Planning Commission to adopt a parking rate between 1/30 sf to 1/50 sf for restaurants.
sf = square feet

Shared Parking

Because of different hours of operation and different offsetting parking activities, not all of uses at Mariner's Pointe require their full allotment of parking spaces at the same time. LSA used methodologies found in *Shared Parking, Second Edition 2005* (Urban Land Institute) to identify the daily variations in parking demand for each of the Mariner's Pointe land uses. The time-of-day factors found in *Shared Parking* are based on empirical studies and result from multiple parking accumulation counts.

Table B (attached) applies these time-of-day factors to the required parking for each land use. The total parking required for all three uses has two peaks: (1) one peak in the early afternoon with a demand for 131 parking spaces at 1:00 p.m., and (2) a second peak in the early evening with a demand of 145 parking spaces at 6:00 p.m. The Mariner’s Pointe parking garage can accommodate 136 parking spaces on site with valet operations. The applicant is committed to providing valet operations from 10:00 a.m. to 11:00 p.m. Therefore, the site will be able to accommodate the demand for 131 parking spaces that occurs at 1:00 p.m. Demand for parking in excess of the 136 spaces on site does not manifest until 6:00 p.m. (145 spaces). Per an off-site shared parking agreement, after 5:00 p.m. Mariner’s Pointe employees would have access to 20 off-site parking spaces. With those off-site parking spaces, the total parking demand for Mariner’s Pointe can be accommodated.

Conclusion

The shared parking analysis reveals that 10,493 sf of retail sales, 3,000 sf of medical/dental office, and approximately of 5,000 sf of net public restaurant area can be provided in the 23,015 sf Mariner’s Pointe without exceeding available parking. However, at least 9 off-site parking spaces will need to be maintained for employees during the evening hours.

Sincerely,

LSA ASSOCIATES, INC.

Ken Wilhelm

Ken Wilhelm
Principal

Attachments: Table B: Time-of-Day Parking Requirements

Table B: Shared Parking Analysis

		Shared Parking Time-of-Day Factors																	
Time of Day Factors[1]		6:00 a.m.	7:00 a.m.	8:00 a.m.	9:00 a.m.	10:00 a.m.	11:00 a.m.	12:00 p.m.	1:00 p.m.	2:00 p.m.	3:00 p.m.	4:00 p.m.	5:00 p.m.	6:00 p.m.	7:00 p.m.	8:00 p.m.	9:00 p.m.	10:00 p.m.	11:00 p.m.
Restaurant [2]						15%	40%	75%	75%	65%	40%	50%	75%	95%	100%	100%	100%	95%	75%
Medical Office				90%	90%	100%	100%	30%	90%	100%	100%	100%	100%	67%	30%	15%			
Retail		1%	5%	15%	35%	65%	85%	95%	100%	95%	90%	90%	95%	95%	95%	80%	50%	30%	10%
Time of Day Parking																			
Restaurant	100	0	0	0	0	15	40.0	75.0	75.0	65.0	40.0	50.0	75.0	95.0	100	100	100	95.0	75.0
Office	15	0	0	13.5	13.5	15	15	4.5	13.5	15	15	15	15	10.1	4.5	2.3	0	0	0
Retail	42	0.42	2.1	6.3	14.7	27.3	35.7	39.9	42	39.9	37.8	37.8	39.9	39.9	39.9	34	21	12.6	4.2
Total	**157**	**0**	**2**	**20**	**28**	**57**	**91**	**119**	**131**	**120**	**93**	**103**	**130**	**145**	**144**	**136**	**121**	**108**	**79**

Notes:

[1] Time-of-Day Factors referenced from *Shared Parking, Second Edition,* Urban Land Institute, 2005.

[2] Fine/Casual Dinning.

Appendix H.
Noise Analysis

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Noise Background and Modeling Data

NOISE BACKGROUND

Terminology and Noise Descriptors

The following are brief definitions of noise terminology:

- **Sound.** A vibratory disturbance that, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.
- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
- **Decibel** (**dB**). A unitless measure of sound on a logarithmic scale, which indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micropascals.
- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels which approximates the frequency response of the human ear.
- **Equivalent Continuous Noise Level (Leq).** The mean of the noise level averaged over the measurement period, regarded as an average level.
- **Day-Night Level (Ldn).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels occurring during the period from 10 PM to 7 AM. The L_{dn} and the CNEL are similar noise descriptors and rarely differ by more than 1 dBA.
- **Community Noise Equivalent Level (CNEL).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added to the A-weighted sound levels occurring during the period from 7 to 10 PM and 10 dB added to the A-weighted sound levels occurring during the period from 10 PM to 7 AM.
- **Sensitive Receptor.** Noise- and vibration-sensitive receptors include land uses where quiet environments are necessary for enjoyment and public health and safety. Residences, schools, motels and hotels, libraries, religious institutions, hospitals, and nursing homes are examples.

L_{dn} and CNEL values rarely differ by more than 1 dB. As a matter of practice, L_{dn} and CNEL values are considered to be equivalent and are treated as such in this assessment.

Characteristics of Sound

Sound is a pressure wave transmitted through the air. When an object vibrates, it radiates part of its energy as acoustical pressure in the form of a sound wave. Sound can be described in terms of amplitude (loudness), frequency (pitch), or duration (time). The standard unit of measurement of the loudness of sound is the decibel (dB). The human hearing system is not equally sensitive to sound at all frequencies. Sound waves below 16 Hz are not heard at all and are "felt" more as a vibration. Similarly, while people with extremely sensitive hearing can hear sounds as high as 20,000 Hz, most people cannot hear above 15,000 Hz. In all cases, hearing acuity falls off rapidly above about 10,000 Hz and below about 200 Hz. Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale is usually used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Because of the physical characteristics of noise transmission and noise perception, the relative loudness of sound does not closely match the actual amounts of sound energy. Table 1, Change in Sound Pressure Level, dB, presents the subjective effect of changes in sound pressure levels. Typical human hearing can detect changes of approximately 3 dBA or greater under normal conditions. Changes of 1 to 3 dBA are detectable under quiet, controlled conditions and changes of less than 1 dBA are usually indiscernible. A change of 5 dBA or greater is typically noticeable to most people in an exterior environment and a change of 10 dBA is perceived as a doubling (or halving) of the noise.

Table 1
Change in Sound Pressure Level, dB

Change in Apparent Loudness	
± 3 dB	Threshold of human perceptibility
± 5 dB	Clearly noticeable change in noise level
± 10 dB	Half or twice as loud
± 20 dB	Much quieter or louder

Source: Bies and Hansen 2003.

Point and Line Sources

Noise may be generated from a point source, such as a piece of construction equipment, or from a line source, such as a road containing moving vehicles. Because noise spreads in an ever-widening pattern, the given amount of noise striking an object, such as an eardrum, is reduced with distance from the source. This is known as "spreading loss." The typical spreading loss for point source noise is 6 dBA per doubling of the distance from the noise source.

A line source of noise, such as vehicles proceeding down a roadway, would also be reduced with distance, but the rate of reduction is affected by of both distance and the type of terrain over which the noise passes. Hard sites, such as developed areas with paving, reduce noise at a rate of 3 dBA per doubling of the distance while soft sites, such as undeveloped areas, open space and vegetated areas reduce noise at a rate of 4.5 dBA per doubling of the distance. These represent the extremes and most areas would actually contain a combination of hard and soft elements with the noise reduction placed somewhere in between these two factors. Unfortunately the only way to actually determine the absolute amount of attenuation that an area provides is through field measurement under operating conditions with subsequent noise level measurements conducted at varying distances from a constant noise source.

Objects that block the line of sight attenuate the noise source if the receptor is located within the "shadow" of the blockage (such as behind a sound wall). If a receptor is located behind the wall, but has a view of the source, the wall would do little to reduce the noise. Additionally, a receptor located on the same side of the wall as the noise source may experience an increase in the perceived noise level, as the wall would reflect noise back to the receptor compounding the noise.

Noise Metrics

Several rating scales (or noise "metrics") exist to analyze adverse effects of noise, including traffic-generated noise, on a community. These scales include the equivalent noise level (L_{eq}), the community noise equivalent level (CNEL) and the day/night noise level (L_{dn}). L_{eq} is a measurement of the sound energy level averaged over a specified time period.

The CNEL noise metric is based on 24 hours of measurement. CNEL differs from L_{eq} in that it applies a time-weighted factor designed to emphasize noise events that occur during the evening and nighttime hours (when quiet time and sleep disturbance is of particular concern). Noise occurring during the daytime period (7:00 AM to 7:00 PM) receives no penalty. Noise produced during the evening time period (7:00 to 10:00 PM) is penalized by 5 dB, while nighttime (10:00 PM to 7:00 AM) noise is penalized by 10 dB. The L_{dn} noise metric is similar to the CNEL metric except that the period from 7:00 to 10:00 PM receives no penalty. Both the CNEL and L_{dn} metrics yield approximately the same 24-hour value (within 1 dB) with the CNEL being the more restrictive (i.e., higher) of the two.

Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. In comparison, extended periods of noise exposure above 90 dBA would result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear. This is called the threshold of pain. A sound level of 160 to 165 dBA will result in dizziness or loss of equilibrium. The ambient or background noise is widespread and generally more concentrated in urban areas than in outlying, less-developed areas (see Table 2).

Table 2
Sound Levels of Common Sources

Noise Source	A-Weighted Sound Level in Decibels	Noise Environments	Subjective Evaluations Relative to 70 dB
Near Jet Engine	140	Deafening	128 times as loud
Civil Defense Siren	130	Threshold of Pain	64 times as loud
Hard Rock Band	120	Threshold of Feeling	32 times as loud
Accelerating Motorcycle at a Few Feet Away	110	Very Loud	16 times as loud
Pile Driver; Noisy Urban Street/Heavy City Traffic	100	Very Loud	8 times as loud
Ambulance Siren; Food Blender	95	Very Loud	
Garbage Disposal	90	Very Loud	4 times as loud
Freight Cars; Living Room Music	85	Loud	
Pneumatic Drill; Vacuum Cleaner	80	Loud	2 times as loud
Busy Restaurant	75	Moderately Loud	
Near Freeway Auto Traffic	70	Moderately Loud	
Average Office	60	Quiet	One-half as loud
Suburban Street	55	Quiet	
Light Traffic; Soft Radio Music in Apartment	50	Quiet	One-quarter as loud
Large Transformer	45	Quiet	
Average Residence without Stereo Playing	40	Faint	One-eighth as loud
Soft Whisper	30	Faint	
Rustling Leaves	20	Very Faint	
Human Breathing	10	Very Faint	Threshold of Hearing

Source: Caltrans 1988.

Vibration

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration is normally associated with activities such as railroads or vibration-intensive stationary sources, but can also be associated with construction equipment, such as jackhammers, pile drivers, and hydraulic hammers. Vibration displacement is the distance that a point on a surface moves away from its original static position. The instantaneous speed that a point on a surface moves is described as the velocity, and the rate of change of the speed is described as the acceleration. Each of these descriptors can be used to correlate vibration to human response, building damage, and acceptable equipment vibration levels. During the construction of a building, the operation of construction equipment could cause groundborne vibration. The three main wave types of concern in the propagation of groundborne vibrations are surface or Rayleigh waves, compression or P-waves, and shear or S-waves.

- Surface or Rayleigh waves travel along the ground surface. They carry most of their energy along an expanding cylindrical wave front, similar to the ripples produced by throwing a rock into a lake. The particle motion is more or less perpendicular to the direction of propagation (known as retrograde elliptical).
- Compression or P-waves are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal, in a push-pull motion. P-waves are analogous to airborne sound waves.

- Shear or S-waves are also body waves, carrying their energy along an expanding spherical wave front. Unlike P-waves, however, the particle motion is transverse, or perpendicular to the direction of propagation.

The peak particle velocity (PPV) or the root mean square (RMS) velocity is usually used to describe vibration amplitudes. PPV is defined as the maximum instantaneous peak of the vibration signal and RMS is defined as the square root of the average of the squared amplitude of the signal. PPV is more appropriate for evaluating potential building damage, whereas RMS is typically more suitable for evaluating human response.

The units for PPV and RMS velocity are normally inches per second (in/sec). Often, vibration is presented and discussed in dB units to compress the range of numbers required to describe the vibration. All PPV and RMS velocity are in in/sec and all vibration levels in this study are in dB relative to 1 micro-inch per second (abbreviated as VdB). The threshold of perception is approximately 65 VdB. Typically groundborne vibration generated by manmade activities attenuates rapidly with distance from the source of the vibration. Manmade vibration problems are usually confined to short distances (500 feet or less) from the source.

Construction generally includes a wide range of activities that can generate groundborne vibration. In general, demolition of structures generates the highest vibrations. Vibratory compactors or rollers, pile drivers, and pavement breakers can generate perceptible amounts of vibration at distances within 200 feet of the vibration sources. Heavy trucks can also generate groundborne vibrations that vary, depending on vehicle type, weight, and pavement conditions. Potholes, pavement joints, discontinuities, differential settlement of pavement, etc., all increase the vibration levels from vehicles passing over a road surface. Construction vibration is normally of greater concern than vibration of normal traffic on streets and freeways with smooth pavement conditions. Trains generate substantial quantities of vibration due to their engines, steel wheels, and heavy loads.

Sensitive Receptors

Certain land uses are particularly sensitive to noise and vibration. Noise- and vibration-sensitive uses include land uses where quiet environments are necessary for enjoyment and public health and safety. Residences, schools, guest lodging, libraries, religious institutions, hospitals, nursing homes, and passive recreation areas are generally more sensitive to noise than commercial and industrial land use.

NOISE REGULATORY ENVIRONMENT

To limit exposure of people to intrusive and physically and/or psychologically damaging noise levels, the federal government, the State of California, some county governments, and most municipalities in the state have established standards and ordinances to control noise.

Noise

The United States Environmental Protection Agency (USEPA) has developed general guidelines for recommended maximum noise levels to protect public health and welfare and the hearing of workers exposed to occupational noise.

Vibration

The human reaction to various levels of vibration varies from person to persons and is highly subjective. Table 3 shows the level at which vibration becomes perceptible based on various types of land uses that are sensitive to vibration.

Table 3
Vibration Perceptibility

Land Use Category	Max L_v (VdB)[1]	Description
Workshop	90	Distinctly felt vibration. Appropriate to workshops and nonsensitive areas
Office	84	Felt vibration. Appropriate to offices and non-sensitive areas.
Residential – Daytime	78	Barely felt vibration. Adequate for computer equipment.
Residential – Nighttime	72	Vibration not felt, but groundborne noise may be audible inside quiet rooms.

Source: FTA 2006.

[1] As measured in 1/3 octave bands of frequency over the frequency ranges of 8 to 80 Hz.

In addition to the vibration standards for human annoyance, the FTA also has vibration standards for architectural damage, as shown in Table 4. Architectural damage is possible when the peak particle velocity (PPV) exceeds 0.2 inch per second. This criterion is the threshold at which there is a risk of damage to residential buildings. For structures of reinforced concrete, steel, or timber, architectural damage is possible when the PPV exceeds 0.5 inch per second.

Table 4
Groundborne Vibration Impact Criteria, Architectural Damage

Building Category		PPV (inches per second)[1]	VdB
I.	Reinforced concrete, steel, or timber (no plaster)	0.5	102
II.	Engineered concrete and masonry (no plaster)	0.3	98
III.	Nonengineered timber and masonry buildings	0.2	94
IV.	Buildings extremely susceptible to vibration damage	0.12	90

Source: FTA 2006.

[1] RMS velocity calculated from vibration level (VdB) using the reference of one micro-inch per second.

State

Interior Noise Standards

The State of California's noise insulation standards are codified in Title 24 California Code of Regulations, Building Standards Administrative Code, Part 2, California Building Code. These noise standards are for new construction in California for the purposes of interior compatibility with exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential, schools, or hospitals, are located near major transportation noises, and where such noise sources create an exterior noise level of 60 dBA CNEL or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL.

LOCAL

Noise Compatibility

The City of Newport Beach General Plan Noise Element discusses the effects of noise exposure on the population and sets goals aimed at protecting its residents from undue noise. The General Plan Noise Element contains noise thresholds for developments located adjacent to mobile or transportation noise

Table 5
Community Noise and Land Use Compatibility

Land Uses	CNEL (dBA)						
	<55	55-60	60-65	65-70	70-75	75-80	>80
Residential – Single-Family, Two-Family, Multiple-Family	▧	▧	▥	▨	▨	■	■
Residential – Mixed Use	▧	▧	▧	▨	▨	▨	■
Residential – Mobile Home	▧	▧	▥	▨	▨	■	■
Commercial (Regional, District) – Hotel, Motel, Transient Lodging	▧	▧	▥	▥	▨	▨	■
Commercial (Regional, Village, Special District, Special) – Commercial Retail, Bank, Restaurant, Movie Theater	▧	▧	▧	▧	▥	▥	▨
Commercial Industrial Institutional – Office Building, Research and Development, Professional Offices, City Office Building	▧	▧	▧	▥	▥	▨	■
Commercial (Recreational) & Institutional (Civic Center) – Amphitheatre, Concert Hall Auditorium, Meeting Hall	▥	▥	▨	▨	■	■	■
Commercial (Recreational) – Children's Amusement Park, Miniature Golf Course, Go-cart Track, Equestrian Center, Sports Club	▧	▧	▧	▥	▥	■	■
Commercial (General, Special), Industrial, & Institutional – Automobile Service Station, Auto Dealership, Manufacturing, Warehousing, Wholesale, Utilities	▧	▧	▧	▧	▥	▥	▥
Institutional – Hospital, Church, Library, School' Classroom	▧	▧	▥	▨	▨	■	■
Open Space – Parks	▧	▧	▧	▥	▨	■	■
Open Space – Golf Course, Cemeteries, Nature Centers, Wildlife Reserves, Wildlife Habitat	▧	▧	▧	▧	▥	▨	▨
Agriculture – Agriculture	▧	▧	▧	▧	▧	▧	▧

Explanatory Notes

▧ **Clearly Compatible:** With no special noise reduction requirements assuming standard construction.

▨ **Normally Incompatible:** New construction is discouraged. If new construction does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

▥ **Normally Compatible:** New construction or development should be undertaken only after a detailed analysis of the noise reduction requirement is made and needed noise insulation features included in the design.

■ **Clearly Incompatible:** New construction or development should generally not be undertaken.

Source: City of Newport Beach, *Newport Beach General Plan*, Adopted November 2006. Adapted from the Governor's Office of Planning and Research. State of California General Plan Guidelines, 2003.

sources and thresholds for stationary noise sources. The City applies the state's Community Noise and Land Use Compatibility standards, summarized in Table 5, to assess the compatibility of new development with existing noise sources, such as vehicles and trains. Therefore, Table 5 is used to gauge the compatibility of new development in the noise environment generated by mobile sources. Table 5 identifies normally acceptable, conditionally acceptable, and clearly unacceptable noise levels for various land uses. A conditionally acceptable designation implies new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use is made and needed noise insulation features are incorporated in the design. A normally acceptable designation indicates that standard construction can occur with no special noise reduction requirements.

For the purposes of CEQA, the City of Newport Beach has adopted the Federal Transit Administration's (FTA) incremental traffic noise impact criteria, which becomes progressively more stringent as the baseline traffic noise levels increase. The City's incremental thresholds are shown in Table 6.

Table 6
City of Newport Beach Incremental Noise Impact Criteria for Noise-Sensitive Uses
(dBA CNEL)

Existing Noise Exposure	*Allowable Combined Noise Exposure*	*Allowable Noise Exposure Increment*
55	58	3
60	62	2
65	66	1
70	71	1
>75	75	0

Source: City of Newport Beach General Plan and General Plan EIR. Adopted November 2006.

Stationary Noise Nuisance

The City applies the Noise Control Ordinance standards (Newport Beach Municipal Code Section 10.26.025), summarized in Table 7, to nontransportation, stationary noise sources. These standards do not gauge the compatibility of developments in the noise environment, but provide restrictions on the amount and duration of noise generated at a property, as measured at the property line of the noise receptor. These noise standards do not apply to noise generated by vehicle traffic, because the state, counties, and cities are preempted from controlling vehicle noise under federal law. The City's noise ordinance is designed to protect people from objectionable nontransportation noise sources such as music, machinery, pumps, and air conditioners.

Table 7
City of Newport Beach Exterior Noise Standards
(L_{eq})

Noise Zone	Time Interval	Maximum Daytime Noise Levels (dBA)	
		L_{25}	L_{max}
Zone I – Single-, two-, or multiple-family residential	7 AM to 10 PM	55	75
	10 PM to 7 AM	50	70
Zone II – Commercial	7 AM to 10 PM	65	85
	10 PM to 7 AM	60	80
Zone III – Residential portions of mixed use properties	7 AM to 10 PM	60	80
	10 PM to 7 AM	50	70
Zone IV – Industrial or manufacturing	7 AM to 10 PM	70	90
	10 PM to 7 AM	70	90

Source: City of Newport Beach Municipal Code. Section 10.26.025, Exterior Noise Standards.

Notes:

- These noise standards do not apply to heating ventilation and air conditioning (HVAC) systems or construction pursuant to Section 10.26.035 of the Municipal Code.
- In the event the ambient noise level exceeds the noise standard, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.
- The Noise Zone III standard shall apply to that portion of residential property falling within 100 feet of a commercial property, if the intruding noise originates from that commercial property.
- If the measurement location is on boundary between two different noise zones, the lower noise level standard applicable to the noise zone shall apply.

Equipment sound ratings of new heating ventilation and air condition (HVAC) equipment installed within the City of Newport Beach are reviewed during plan check and tested in the field after installation. According to Section 10.26.045 of the City of Newport Beach Municipal Code, new permits for HVAC equipment in or adjacent to residential areas shall be issued only where the sound rating of the proposed equipment does not exceed 55 dBA and is installed with a timing device that will deactivate the equipment during the hours of 10:00 PM to 7:00 AM.

Sound-Amplifying Equipment

The City of Newport Beach requires that use of any sound-amplifying equipment used within the City apply for and obtain a permit from the Finance Director (City of Newport Beach Municipal Code Chapter 10.32, *Sound-Amplifying Equipment*). According to the City's Municipal Code, the volume of sound shall be controlled so that it will not be audible for a distance in excess of 100 feet from the sound-amplifying device, and so that the volume is not unreasonably loud, raucous, jarring, disturbing, or a nuisance to persons within the range of allowed audibility. Furthermore, use of sound-amplifying equipment is prohibited outdoors between the hours of 8:00 PM and 8:00 AM.

Construction Noise

The City realizes that the control of construction noise is difficult and therefore provides exemption for this type of noise. According to the City of Newport Beach Municipal Code Section 10.26.035, *Exemptions*, noise sources associated with construction, repair, remodeling, demolition, or grading of any real property are exempt from the noise level limits shown in the Table 5.9-4 above. Such activities shall instead be subject to the provisions of the City of Newport Beach Municipal Code Section 10.28.040, *Construction Activity – Noise Regulations*. According to this chapter, construction is permitted on weekdays between the hours of 7:00 AM and 6:30 PM and Saturdays between the hours of 8:00 AM and 6:00 PM. Construction is not permitted on Sundays or any federal holiday. Exceptions to these construction hours can be made when the maintenance, repair or improvement is of a nature that cannot feasibly be conducted during normal business hours, as outlined in Section 10.28.040 of the City's Municipal Code.

EXISTING NOISE ENVIRONMENT

The primary source of noise is local traffic on West Coast Highway and Dover Drive that abuts the project site to the south and east. Other sources of noise in the vicinity are from mechanical systems (heating, ventilation, and air conditioning [HVAC]) and other stationary sources of noise from the nearby residences and activity from Newport Bay.

Traffic Noise

In order to assess the potential for mobile-source noise impacts, it is necessary to determine the noise currently generated by vehicles traveling through the project area. Noise modeling was conducted using the Federal Highway Administration's Traffic Noise Model (FHWA TNM) Version 2.5. Average daily traffic (ADT) volumes were based on the existing daily traffic volumes provided in the traffic study (RBF 2011). The results of this modeling indicate that average 24-hour noise levels along roadways currently range from approximately 70 dBA to 77 dBA CNEL. Noise levels for existing conditions along analyzed roadways are presented in Table 8.[1]

Table 8
Existing Traffic Noise Levels

Roadway Segment[1]	*Noise Levels (dBA CNEL)*
West Coast Highway	
Newport Blvd to Riverside Ave[2]	76.9
Riverside Ave to Tustin Ave[2]	76.8
Tustin Ave to Balboa Bay Club[2]	71.5
Balboa Bay Club to Dover Dr[3]	70.7
Dover Dr to Bayside Dr[2]	77.0
Dover Drive	
Westcliff Dr to 16th St[3]	69.8
16th St to Cliff Dr[4]	72.6
Cliff Dr to West Coast Hwy[4]	72.7

Source: Federal Highway Administration (FHWA), Traffic Noise Model (TNM), Version 2.5
Note: Based on traffic volumes provided by RBF (February 2009) and speed limits obtained using Google Maps.

[1] For purposes of this analysis, only segments where the project would increase traffic volumes by 25 percent or more were modeled.

[2] At the nearest non-residential property line, excluding noise reduction from existing soundwalls.

[3] At the nearest residential property line.

[4] At the nearest residential property line, includes noise reduction from landscape areas.

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[1] See Figure 17, *Study Intersection Locations*, of this Initial Study for roadway segment locations.

Methodology

Vibration

The threshold of perception is approximately 65 VdB, and vibration levels are barely perceptible at 78 VdB. Although the maximum vibration levels associated with certain construction activities could be perceptible in certain instances, vibration events would be infrequent throughout the day, vibration events would occur during the least vibration-sensitive portions of the day, and equipment would be used for a short duration when working in close proximity to vibration-sensitive receptors. Additionally, construction activities are typically distributed throughout the project site. Therefore, construction vibration is based on average vibration levels (i.e., vibration levels that would be experienced by sensitive receptors the majority of the time) that exceed the FTA's criterion. The FTA criterion for vibration limit is 78 VdB at the nearby homes.

Noise

There are two criteria for judging noise impacts used in this analysis. First, noise levels projected for the proposed project must comply with all relevant state and local standards and regulations. Noise impacts on the surrounding community are enforced through local noise ordinances, supported by nuisance complaints and subsequent investigation. The second measure of impact used in this analysis is whether the increase in noise above the ambient noise level, as a result of a new noise source, has the potential to adversely impact people.

Noise impacts can be broken down into three categories. The first is audible impacts. Audible increases in noise levels generally refer to a change of 3 dBA or more, as this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change of between 1 and 3 dBA. This range of noise levels was found to be noticeable to sensitive people in laboratory environments. The last category, inaudible, includes changes of less than 1 dBA, which are typically inaudible to the human ear except under quiet conditions in controlled environments. In general, human sound perception is such that a change in sound level of 3 dB is just noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving of sound level. Only audible changes of 3 dBA or greater in noise levels at sensitive receptors are considered potentially significant when noise levels exceed the compatibility criteria. Table 9 illustrates the apparent loudness of the change in sound pressure levels.

Table 9
Change in Sound Pressure Levels

Change In Apparent Loudness	
± 3 dB	Threshold of human perceptibility
± 5 dB	Clearly noticeable change in noise level
± 10 dB	Half or twice as loud
± 20 dB	Much quieter or louder

Source: Bies and Hansen 2003.

Construction noise is assessed based on data provided by the USEPA. Construction-generated vibration is assessed based on methods provided by the FTA.

The operational phase of the proposed project would generate noise from vehicle travel. The FHWA Noise Traffic Model is currently used throughout the United States to evaluate traffic-related noise conditions.

Criteria for Determining Significance

The criteria used to determine the significance of an impact related to noise are based on the Initial Study checklist in Appendix G of the State CEQA Guidelines, along with the federal, state, and local standards. The proposed project would result in significant noise impacts if it would cause:

- **Exposure** of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies (noise standard compliance analysis is incorporated into the previous thresholds).
    - Operation-related stationary sources would generate noise levels that exceed the City of Newport Beach exterior noise standards for extended periods of time.
- **Exposure** of persons to or generation of excessive groundborne vibration or groundborne noise levels.
    - Construction activities result in vibration levels of 78 VdB at vibration-sensitive uses, which is the vibration level that is barely perceptible based on the FTA vibration criteria during the daytime.
    - Construction activities generate vibration that are strong enough to cause vibration-induced structural damage based on the FTA, which is 0.2 in/sec for typical wood-framed buildings and 0.5 in/sec for reinforced concrete, steel, or timber buildings.
- A **substantial** permanent increase in ambient noise levels in the project vicinity above levels existing without the project (broken down into traffic noise, operational noise, and excessive noise levels at the project site from traffic on adjacent street).
    - For a substantial increase in ambient noise levels, based on General Plan Policy N1.8, the project would cause an increase in noise levels by 3 dBA or more when the existing CNEL is 60 dBA or less, 2 dBA or more when the CNEL is between 60 and 65 dBA, 1 dBA or more when the CNEL is between 65 and 75, or any amount when the CNEL exceeds 75 dBA in the vicinity of any noise-sensitive receptors.
- A **substantial** temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (construction and operational noise).
    - Project-related construction activities occurring outside of the hours specified (7:00 AM and 6:30 PM during the weekday, 8:00 AM to 6:00 PM on Saturday, and at no time on Sunday or any legal holiday.) under the City of Newport Beach Municipal Code (Section 10.28.040).

Sensitive Receptors

Noise- and vibration-sensitive uses include residential land uses where quiet environments are necessary for enjoyment and public health and safety. The nearest residential land uses are single-family Cliff Haven residences overlooking the project site to the north and the multi-family residences of the Bayshores Community to the south across West Coast Highway.

REFERENCES

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Kimley-Horn and Associates, Inc. 2010, December. *Traffic Evaluation for the Proposed Eastside Christian Church*.

United States Department of Transportation, Federal Highway Administration (FHWA). 1998, February. FHWA Traffic Noise Model (FHWA TNM) Technical Manual. FHWA-PD-96-010.

Summary - Mariner's Pointe

	Existing	Without Project		With Project			
	dBA Lden	Average Daily	dBA Lden	Average Daily	dBA Lden	Cumulative Increase	Increase Due to the Project During Event
West Coast Highway							
Newport Blvd to Riverside Ave	76.9	49,310	77.6	49,560	77.6	0.7	0.0
Riverside Ave to Tustin Ave	76.8	44,700	77.5	45,000	77.6	0.8	0.1
Tustin Ave to Balboa Bay Club	71.5	45,920	72.2	46,220	72.3	0.8	0.1
Balboa Bay Club to Dover Dr	70.7	46,120	71.4	46,650	71.4	0.7	0.0
Dover Dr to Bayside Dr	77.0	63,460	77.6	63,670	77.6	0.6	0.0
Dover Drive							
Westcliff Dr to 16th St	69.8	22,570	70.2	22,780	70.2	0.4	0.0
16th St to Cliff Dr	72.6	25,260	73.0	25,510	73.1	0.5	0.1
Cliff Dr to West Coast Hwy	72.7	26,610	73.1	26,950	73.1	0.4	0.0

FHWA Traffic Noise Model Worksheets - Mariner's Pointe

Assuming Fleet mix of:

City

CARS	M-TRUCK	H-TRUCK
97.0%	2.0%	1.0%

			Existing		Future No Project		Future With Project	
	MPH	Km/H	Average Daily	dBA Lden	Average Daily	dBA Leq	Average Daily	dBA Leq
West Coast Highway								
Newport Blvd to Riverside Ave	45	72.42	42,330	76.9	49,310	77.6	49,560	77.6
Riverside Ave to Tustin Ave	45	72.42	37,840	76.8	44,700	77.5	45,000	77.6
Tustin Ave to Balboa Bay Club	45	72.42	38,580	71.5	45,920	72.2	46,220	72.3
Balboa Bay Club to Dover Dr	45	72.42	38,780	70.7	46,120	71.4	46,650	71.4
Dover Dr to Bayside Dr	40	64.37	55,540	77.0	63,460	77.6	63,670	77.6
Dover Drive								
Westcliff Dr to 16th St	40	64.37	20,920	69.8	22,570	70.2	22,780	70.2
16th St to Cliff Dr	40	64.37	23,470	72.6	25,260	73.0	25,510	73.1
Cliff Dr to West Coast Hwy	40	64.37	24,770	72.7	26,610	73.1	26,950	73.1

Traffic Volumes based on RBF Traffic Study (2011).

Receivers

The Planning Center 21-Mar-11
John Vang TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: CNB-11.0E
RUN:

Receiver Name	No.	#DUs	Coordinates (ground) X m	Y m	Z m	Height above Ground m	Input Sound Levels and Criteria Existing Lden dBA	Impact Criteria Lden dBA	Sub'l dB	NR Goal dB	Active in Calc.
Dover Drive n/o 16th_east	1	1	416045.1	720811.8	0	1.5	0	66	10	8	Y
Dover Drive n/o Cliff_west	2	1	415820	720462.9	0	1.5	0	66	10	8	Y
Dover Drive n/o Cliff_east	3	1	415851.2	720454.9	0	1.5	0	66	10	8	Y
Dover Drive s/o Cliff_west	4	1	415847.3	720151.2	0	1.5	0	66	10	8	Y
Dover Drive s/o Cliff_east	5	1	415889.9	720158.4	0	1.5	0	66	10	8	Y
WC Hwy e/o Dover_north	6	1	416259.1	720014.5	0	1.5	0	66	10	8	Y
WC Hwy e/o Dover_South	8	1	416245.8	719975.2	0	1.5	0	66	10	8	Y
WC Hwy w/o Dover_north	9	1	415570.8	720012.2	0	1.5	0	66	10	8	Y
WC Hwy w/o Dover_south	10	1	415570.7	719936.6	0	1.5	0	66	10	8	Y
WC Hwy btwn Balboa and Tustin_north	11	1	414889.6	720112.4	0	1.5	0	66	10	8	Y
WC Hwy btwn Balboa and Tustin_south	13	1	414897.9	720033.1	0	1.5	0	66	10	8	Y
WC Hwy btwn Tustin and Riverside	15	1	414339.9	720420.3	0	1.5	0	66	10	8	Y
WC Hwy btwn Riverside and Newport	16	1	414028.8	720561.3	0	1.5	0	66	10	8	Y

Roadway

The Planning Center 21-Mar-11
John Vang TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: CNB-11.0E
RUN: Mariner's Pointe

Average pavement type shall be used unless
a State highway agency substantiates the use
of a different type with the approval of FHWA

Roadway		Points						Segment
Name	Width	Name	No.	Coordinates (pavement)			Flow Control	Pvmt
				X	Y	Z	Control	Type
	m			m	m	m		
Roadway1	3.7		point1	1	415823.1	719979	0	Average
			point2	2	415734.8	719964.9	0	Average
			point3	3	415385.9	719952.4	0	Average
			point4	4	415331.9	719954	0	Average
			point5	5	415297	719957.2	0	Average
			point6	6	415262.5	719961.8	0	Average
			point7	7	415223.5	719969.9	0	Average
			point8	8	415194.2	719976.6	0	
Roadway2	3.5		point9	9	415822.4	719975.2	0	Average
			point10	10	415734.8	719961.4	0	Average
			point11	11	415385.9	719948.4	0	Average
			point12	12	415331.5	719950	0	Average
			point13	13	415296.3	719953.1	0	Average
			point14	14	415261.7	719957.8	0	Average
			point15	15	415222.3	719965.5	0	Average
			point16	16	415193	719972.4	0	
Roadway3	3.3		point17	17	415190.3	719962.2	0	Average
			point18	18	415219.5	719955.1	0	Average
			point19	19	415259.9	719947.7	0	Average
			point20	20	415294.9	719942.7	0	Average
			point21	21	415330.6	719939.2	0	Average
			point22	22	415385.8	719937.6	0	Average
			point23	23	415734.9	719950.9	0	Average
			point24	24	415819.5	719956.4	0	
Roadway4	3.2		point25	25	415191.2	719965.3	0	Average
			point26	26	415220.5	719958.4	0	Average
			point27	27	415260.6	719950.8	0	Average
			point28	28	415295.6	719945.8	0	Average
			point29	29	415331	719942.8	0	Average
			point30	30	415385.9	719941	0	Average
			point31	31	415734.9	719954.2	0	Average
			point32	32	415820.1	719959.9	0	
Roadway5	3.7		point33	33	416447.2	719985.9	0	Average
			point34	34	416406.8	719987.9	0	Average
			point35	35	416342.4	719990.3	0	Average
			point36	36	416312.6	719994.6	0	Average
			point37	37	416282	720001.9	0	Average
			point38	38	416202.8	720026.3	0	Average
			point39	39	416156.7	720037.9	0	Average
			point40	40	416116.2	720043.6	0	Average
			point41	41	416082.3	720044.9	0	Average
			point42	42	416049.1	720043.8	0	Average

Name	Width	Name	No.	Coordinates (pavement)			Flow Control	Pvmt
				X	Y	Z	Control	Type
	m			m	m	m		
			point43	43	416019.5	720039.6	0	Average
			point44	44	415988.6	720032.5	0	Average
			point45	45	415916.1	720010.9	0	Average
			point46	46	415909.8	720009.1	0	Average
			point47	47	415895.1	720010.4	0	Average
			point48	48	415882.6	720018.3	0	Average
			point49	49	415877.3	720027	0	Average
			point50	50	415875.3	720038.4	0	Average
			point51	51	415876.1	720047.3	0	Average
			point52	52	415884	720085.7	0	Average
			point53	53	415885.7	720114.3	0	
Roadway11	3.7		point111	111	416447.4	719982.2	0	Average
			point112	112	416406.8	719984.2	0	Average
			point113	113	416342	719986.7	0	Average
			point114	114	416311.6	719990.9	0	Average
			point115	115	416281	719998.8	0	Average
			point116	116	416201.6	720022.2	0	Average
			point117	117	416155.8	720034.2	0	Average
			point118	118	416116.1	720040.2	0	Average
			point119	119	416082.3	720041.7	0	Average
			point120	120	416049.8	720039.7	0	Average
			point121	121	416020.2	720035.7	0	Average
			point122	122	415989.6	720028.9	0	Average
			point123	123	415917.2	720007.3	0	Average
			point124	124	415867.3	719992.9	0	Average
			point125	125	415824.1	719983.4	0	Average
			point126	126	415735.1	719967.9	0	
Roadway12	3.7		point127	127	416447.6	719978.6	0	Average
			point128	128	416406.5	719980.4	0	Average
			point129	129	416341.1	719983.1	0	Average
			point130	130	416310.7	719987.7	0	Average
			point131	131	416279.7	719995.4	0	Average
			point132	132	416199.8	720019.4	0	Average
			point133	133	416154.8	720030.7	0	Average
			point134	134	416115.7	720036.4	0	Average
			point135	135	416082.2	720037.9	0	Average
			point136	136	416050.1	720036.2	0	Average
			point137	137	416020.8	720032.2	0	Average
			point138	138	415990.5	720025.4	0	Average
			point139	139	415918.8	720003.8	0	Average
			point140	140	415868.2	719989.1	0	Average
			point141	141	415823.1	719979	0	
Roadway13	3.7		point142	142	416447.7	719974.4	0	Average
			point143	143	416406.5	719976.7	0	Average
			point144	144	416340.3	719979.7	0	Average
			point145	145	416309.6	719984.4	0	Average
			point146	146	416278.6	719992.2	0	Average
			point147	147	416198.5	720016.2	0	Average
			point148	148	416153.3	720027.2	0	Average
			point149	149	416115.2	720032.9	0	Average
			point150	150	416082.2	720034.2	0	Average
			point151	151	416050.7	720032.7	0	Average
			point152	152	416021.3	720028.7	0	Average
			point153	153	415991.8	720021.8	0	Average
			point154	154	415919.9	720000.2	0	Average
			point155	155	415869	719985.4	0	Average

Name	Width	Name	No.	Coordinates (pavement)			Flow Control	Pvmt
				X	Y	Z	Control	Type
	m			m	m	m		
			point156	156	415823.5	719975.2	0	
Roadway14	3.7		point157	157	415820.2	719959.9	0	Average
			point158	158	415849.3	719965.5	0	Average
			point159	159	415873	719973.2	0	Average
			point160	160	415922.9	719992.2	0	Average
			point161	161	415992.5	720017.1	0	Average
			point162	162	416022.3	720023.9	0	Average
			point163	163	416050.9	720027.8	0	Average
			point164	164	416082.1	720029.1	0	Average
			point165	165	416114.4	720027.8	0	Average
			point166	166	416154.9	720022.5	0	Average
			point167	167	416196.2	720011.2	0	Average
			point168	168	416275.5	719984.2	0	Average
			point169	169	416307.3	719975.9	0	Average
			point170	170	416338.8	719971.4	0	Average
			point171	171	416408.9	719968.4	0	Average
			point172	172	416447.8	719965.5	0	
Roadway15	3.7		point173	173	415819.6	719956.4	0	Average
			point174	174	415850.1	719962.1	0	Average
			point175	175	415874.8	719969.7	0	Average
			point176	176	415924.5	719988.9	0	Average
			point177	177	415993.1	720013.2	0	Average
			point178	178	416023.1	720020.2	0	Average
			point179	179	416051.2	720023.9	0	Average
			point180	180	416082	720025.1	0	Average
			point181	181	416113.8	720024.2	0	Average
			point182	182	416150.9	720018.9	0	Average
			point183	183	416194.9	720008.2	0	Average
			point184	184	416274.3	719980.5	0	Average
			point185	185	416306.2	719972.4	0	Average
			point186	186	416338.4	719967.9	0	Average
			point187	187	416411.8	719964.2	0	Average
			point188	188	416448	719961.7	0	
Roadway16	3.7		point189	189	415819.1	719952.7	0	Average
			point190	190	415851.1	719958.5	0	Average
			point191	191	415876.3	719965.9	0	Average
			point192	192	415925.8	719985.4	0	Average
			point193	193	415994.1	720010	0	Average
			point194	194	416023.4	720016.6	0	Average
			point195	195	416051.4	720020.4	0	Average
			point196	196	416081.9	720021.8	0	Average
			point197	197	416114	720020.2	0	Average
			point198	198	416149.6	720015.4	0	Average
			point199	199	416193.1	720004.8	0	Average
			point200	200	416273	719977.2	0	Average
			point201	201	416305	719969.1	0	Average
			point202	202	416337.9	719964.4	0	Average
			point203	203	416415.6	719960.6	0	Average
			point204	204	416447.9	719958	0	
Roadway17	3.7		point205	205	415929.6	720656	0	Average
			point206	206	415895.7	720587.2	0	Average
			point207	207	415837.5	720467.3	0	Average
			point208	208	415831	720453.2	0	Average
			point209	209	415825	720437.8	0	Average
			point210	210	415819	720420.2	0	Average
			point211	211	415812	720390.3	0	Average

Name	Width	Name	No.	Coordinates (pavement)			Flow Control	Pvmt
				X	Y	Z	Control	Type
	m			m	m	m		
			point212	212	415809.2	720370.9	0	Average
			point213	213	415808.4	720351	0	Average
			point214	214	415810.3	720322.4	0	Average
			point215	215	415814.8	720295.5	0	Average
			point216	216	415823.7	720267.1	0	Average
			point217	217	415859.1	720181.4	0	
Roadway18	3.7		point218	218	415925.7	720657.7	0	Average
			point219	219	415892.6	720588.8	0	Average
			point220	220	415834.3	720468.8	0	Average
			point221	221	415827.9	720454.7	0	Average
			point222	222	415821.4	720439.2	0	Average
			point223	223	415815.1	720421.3	0	Average
			point224	224	415808.1	720390.8	0	Average
			point225	225	415805.5	720371.3	0	Average
			point226	226	415804.5	720351.3	0	Average
			point227	227	415805.9	720322.3	0	Average
			point228	228	415810.4	720294.6	0	Average
			point229	229	415820	720265.8	0	Average
			point230	230	415853.2	720180.3	0	
Roadway19	3.2		point231	231	415853.3	720180.2	0	Average
			point232	232	415861.1	720163.6	0	Average
			point233	233	415865.7	720139.8	0	Average
			point234	234	415866.4	720118.9	0	Average
			point235	235	415864.6	720090.1	0	Average
			point236	236	415858.2	720063.3	0	Average
			point237	237	415844.1	720024.9	0	Average
			point238	238	415841.3	720011.2	0	Average
			point239	239	415841.4	719995.4	0	
Roadway20	4.6		point240	240	415853.1	720180.3	0	Average
			point241	241	415857.5	720162.7	0	Average
			point242	242	415861.5	720139.6	0	Average
			point243	243	415862.8	720119.1	0	Average
			point244	244	415860.8	720091.1	0	Average
			point245	245	415854.8	720064.5	0	Average
			point246	246	415840.9	720026	0	Average
			point247	247	415837.8	720011.8	0	Average
			point248	248	415836.4	719994.6	0	
Roadway21	3.2		point249	249	415859.1	720181.3	0	Average
			point250	250	415867.9	720164.8	0	Average
			point251	251	415872.4	720140.7	0	Average
			point252	252	415873.2	720118.9	0	Average
			point253	253	415870.8	720088.8	0	Average
			point254	254	415864.1	720061.1	0	Average
			point255	255	415850.3	720022.7	0	Average
			point256	256	415848.2	720010.6	0	Average
			point257	257	415848.1	719996.5	0	
Roadway22	3.2		point258	258	415859	720181.4	0	Average
			point259	259	415864.7	720164.1	0	Average
			point260	260	415868.8	720140	0	Average
			point261	261	415869.6	720118.9	0	Average
			point262	262	415867.5	720089.4	0	Average
			point263	263	415861.3	720062.1	0	Average
			point264	264	415847.3	720023.9	0	Average
			point265	265	415844.9	720010.8	0	Average
			point266	266	415844.7	719996	0	
Roadway23	3		point267	267	415855.9	719998	0	Average

Name	Width	Name	No.	Coordinates (pavement)			Flow Control	Pvmt
				X	Y	Z	Control	Type
	m			m	m	m		
			point268	268	415858.7	720009	0	Average
			point269	269	415861.2	720019.9	0	Average
			point270	270	415870.5	720059.8	0	Average
			point271	271	415876.7	720088.1	0	Average
			point272	272	415878.9	720118.9	0	Average
			point273	273	415878.3	720140.3	0	Average
			point274	274	415874	720166.1	0	Average
			point275	275	415868.1	720183.5	0	Average
			point276	276	415835.2	720270.8	0	
Roadway24	3.7		point277	277	415859.7	719998.7	0	Average
			point278	278	415862.4	720008.3	0	Average
			point279	279	415864.7	720019.6	0	Average
			point280	280	415873.7	720059.1	0	Average
			point281	281	415880	720087.4	0	Average
			point282	282	415882.6	720118.4	0	Average
			point283	283	415881.7	720140.4	0	Average
			point284	284	415877.3	720167.1	0	Average
			point285	285	415872.1	720185.1	0	Average
			point286	286	415838.8	720272.1	0	
Roadway25	3.7		point287	287	415835.2	720270.9	0	Average
			point288	288	415826.6	720294.7	0	Average
			point289	289	415818.2	720323.2	0	Average
			point290	290	415815.4	720351	0	Average
			point291	291	415816.4	720365.7	0	Average
			point292	292	415819.2	720388.9	0	Average
			point293	293	415826.4	720418.1	0	Average
			point294	294	415832.3	720435.3	0	Average
			point295	295	415838.1	720449.8	0	Average
			point296	296	415844.2	720463	0	Average
			point297	297	415902.7	720584.2	0	Average
			point298	298	415922.9	720625.4	0	
Roadway26	3.7		point299	299	415838.8	720272.2	0	Average
			point300	300	415830.5	720295.8	0	Average
			point301	301	415821.8	720324	0	Average
			point302	302	415819	720351.2	0	Average
			point303	303	415820.1	720369.2	0	Average
			point304	304	415822.7	720388	0	Average
			point305	305	415829.9	720416.7	0	Average
			point306	306	415835.7	720434.2	0	Average
			point307	307	415841.2	720448.5	0	Average
			point308	308	415846.5	720462.2	0	Average
			point309	309	415905.7	720582.3	0	Average
			point310	310	415926	720623.5	0	
Roadway27	2.9		point311	311	415840.8	720028.9	0	Average
			point312	312	415836.5	720019.7	0	Average
			point313	313	415833.8	720006.5	0	Average
			point314	314	415832.9	719994	0	
Roadway28	3.4		point315	315	415192.9	719972.4	0	Average
			point316	316	414918	720052.2	0	Average
			point317	317	414844.8	720082	0	Average
			point318	318	414806.9	720101.9	0	Average
			point319	319	414746.7	720140.6	0	Average
			point320	320	414720.2	720161.2	0	Average
			point321	321	414643	720228.3	0	Average
			point322	322	414603.9	720254.1	0	Average
			point323	323	414587.4	720263.9	0	

Name	Width	Name	No.	Coordinates (pavement)			Flow Control	Pvmt
				X	Y	Z	Control	Type
	m			m	m	m		
Roadway30	3.7		point324	324	415194.1	719976.6	0	Average
			point325	325	414919.6	720056.5	0	Average
			point326	326	414846.5	720085.2	0	Average
			point327	327	414809.3	720105.3	0	Average
			point328	328	414749.2	720144.2	0	Average
			point329	329	414722.9	720164.6	0	Average
			point330	330	414643.2	720232.1	0	Average
			point331	331	414605.5	720257.1	0	Average
			point332	332	414589	720267.1	0	
Roadway31	3.7		point333	333	414590.9	720270.8	0	Average
			point334	334	414406.7	720374.1	0	Average
			point335	335	414387.7	720384.9	0	Average
			point336	336	414274.8	720448.5	0	Average
			point337	337	414252.2	720461.2	0	Average
			point338	338	414170.3	720506.9	0	Average
			point339	339	414135.9	720522.9	0	Average
			point340	340	414101.2	720535.9	0	Average
			point341	341	414077	720543	0	Average
			point342	342	414038	720552.1	0	Average
			point343	343	413978.4	720559.9	0	Average
			point344	344	413933.3	720560.4	0	Average
			point345	345	413871.1	720557.9	0	Average
			point346	346	413758.2	720552.6	0	Average
			point347	347	413713.1	720554.1	0	Average
			point348	348	413685	720558.9	0	
Roadway32	3		point349	349	414588.9	720267.1	0	Average
			point350	350	414405.2	720371.1	0	Average
			point351	351	414386.1	720382.1	0	Average
			point352	352	414273.5	720445.8	0	Average
			point353	353	414250.7	720458.8	0	Average
			point354	354	414168.9	720504.5	0	Average
			point355	355	414134.5	720520.2	0	Average
			point356	356	414100.1	720532.5	0	Average
			point357	357	414076.5	720539.6	0	Average
			point358	358	414037.7	720548.5	0	Average
			point359	359	413978.1	720555.7	0	Average
			point360	360	413933.4	720556.6	0	Average
			point361	361	413871.1	720553.2	0	Average
			point362	362	413757.9	720549.2	0	Average
			point363	363	413712.7	720551.2	0	Average
			point364	364	413690.5	720554	0	
Roadway33	3		point365	365	414587.3	720263.9	0	Average
			point366	366	414403.7	720368.5	0	Average
			point367	367	414384.4	720379.6	0	Average
			point368	368	414272	720443.3	0	Average
			point369	369	414248.4	720456	0	Average
			point370	370	414166.7	720501.8	0	Average
			point371	371	414133.1	720517.4	0	Average
			point372	372	414098.7	720529.7	0	Average
			point373	373	414075.6	720536.6	0	Average
			point374	374	414037	720545.5	0	Average
			point375	375	413977.7	720552.4	0	Average
			point376	376	413933.4	720553.1	0	Average
			point377	377	413871.1	720550.1	0	Average
			point378	378	413758.5	720545.4	0	Average
			point379	379	413712.2	720547.7	0	Average

Name	Width	Name	No.	Coordinates (pavement)			Flow Control	Pvmt
				X	Y	Z	Control	Type
	m			m	m	m		
		point380	380	413695.8	720549.2	0		
Roadway34	3	point381	381	413670.2	720545.3	0	Average	
		point382	382	413711	720540.1	0	Average	
		point383	383	413758.4	720538.3	0	Average	
		point384	384	413871.2	720544.3	0	Average	
		point385	385	413933.3	720547.9	0	Average	
		point386	386	413976.8	720546.2	0	Average	
		point387	387	414035	720538	0	Average	
		point388	388	414073.2	720529.3	0	Average	
		point389	389	414095.7	720522.1	0	Average	
		point390	390	414129	720510	0	Average	
		point391	391	414163.5	720494	0	Average	
		point392	392	414244.5	720449.3	0	Average	
		point393	393	414268.2	720436.1	0	Average	
		point394	394	414380.3	720372.7	0	Average	
		point395	395	414401.5	720360.9	0	Average	
		point396	396	414582.9	720258.4	0		
Roadway35	3	point397	397	413669.3	720541.7	0	Average	
		point398	398	413710.6	720536.3	0	Average	
		point399	399	413758.5	720534.6	0	Average	
		point400	400	413871.3	720540.9	0	Average	
		point401	401	413933	720544.6	0	Average	
		point402	402	413976.4	720542.2	0	Average	
		point403	403	414037.1	720534.2	0	Average	
		point404	404	414072.3	720525.8	0	Average	
		point405	405	414094.8	720518.9	0	Average	
		point406	406	414128.1	720506.7	0	Average	
		point407	407	414161.5	720491.4	0	Average	
		point408	408	414242.6	720446.4	0	Average	
		point409	409	414265.5	720433	0	Average	
		point410	410	414378.5	720369.6	0	Average	
		point411	411	414399.4	720357.8	0	Average	
		point412	412	414581.6	720255.2	0		
Roadway36	3	point413	413	414583	720258.4	0	Average	
		point414	414	414599.3	720248.3	0	Average	
		point415	415	414636.4	720222.6	0	Average	
		point416	416	414715.6	720155.7	0	Average	
		point417	417	414742.4	720134.8	0	Average	
		point418	418	414803.1	720095.9	0	Average	
		point419	419	414841.4	720075.5	0	Average	
		point420	420	414915.3	720045.6	0	Average	
		point421	421	415192.1	719965.3	0		
Roadway37	3	point422	422	414581.7	720255.2	0	Average	
		point423	423	414598.2	720245.4	0	Average	
		point424	424	414634.6	720219.6	0	Average	
		point425	425	414713.4	720152.8	0	Average	
		point426	426	414740.6	720132	0	Average	
		point427	427	414801.4	720092.7	0	Average	
		point428	428	414839.7	720072.7	0	Average	
		point429	429	414914.2	720042.6	0	Average	
		point430	430	415190.2	719962.2	0		
Roadway39	3.7	point438	438	416144.6	720978.6	0	Average	
		point439	439	416128.3	720961.4	0	Average	
		point440	440	416095.9	720924.2	0	Average	
		point441	441	416055	720880.5	0	Average	
		point442	442	416037.6	720860.1	0	Average	

Name	Width	Name	No.	Coordinates (pavement)			Flow Control	Pvmt
				X	Y	Z	Control	Type
	m			m	m	m		
			point443	443	416020.9	720837.9	0	Average
			point444	444	416005.4	720812.5	0	Average
			point445	445	415929.6	720656.1	0	
Roadway40	4.3		point446	446	416097.5	720993.2	0	Average
			point447	447	416102.3	720969.2	0	Average
			point448	448	416102	720954.1	0	Average
			point449	449	416097.6	720940.3	0	Average
			point450	450	416088.5	720923.9	0	Average
			point451	451	416080.8	720913.6	0	Average
			point452	452	416052	720883.1	0	Average
			point453	453	416034.3	720862.9	0	Average
			point454	454	416017.5	720840.1	0	Average
			point455	455	416001.8	720817.6	0	Average
			point456	456	415925.7	720657.8	0	
Roadway41	3.4		point457	457	416078.2	720891.4	0	Average
			point458	458	416086.2	720904.4	0	Average
			point459	459	416110.8	720929.6	0	Average
			point460	460	416133.6	720956.7	0	
Roadway42	3.4		point461	461	415922.9	720625.6	0	Average
			point462	462	415936.7	720652.9	0	Average
			point463	463	416012.7	720808.6	0	Average
			point464	464	416028	720833.2	0	Average
			point465	465	416044.3	720854.6	0	Average
			point466	466	416064.6	720877.5	0	Average
			point467	467	416078.3	720891.3	0	
Roadway43	3.7		point468	468	415926	720623.6	0	Average
			point469	469	415940.1	720651.2	0	Average
			point470	470	416015.7	720806.7	0	Average
			point471	471	416031.3	720831.4	0	Average
			point472	472	416047.3	720852	0	Average
			point473	473	416067.8	720874.6	0	Average
			point474	474	416081.2	720888.9	0	
Roadway44	3.4		point475	475	416078.3	720891.4	0	Average
			point476	476	416088.8	720902	0	Average
			point477	477	416112.9	720927.6	0	Average
			point478	478	416136.3	720954.6	0	
Roadway45	3.4		point479	479	416081.2	720889.1	0	Average
			point480	480	416091.4	720899.9	0	Average
			point481	481	416115.9	720925.1	0	Average
			point482	482	416139.1	720952.7	0	
Roadway46	3.7		point483	483	416081.3	720889.1	0	Average
			point484	484	416094.2	720897.2	0	Average
			point485	485	416118.5	720922.6	0	Average
			point486	486	416141.8	720950.2	0	

Traffic

The Planning Center
John Vang

21-Mar-11
TNM 2.5

INPUT: TRAFFIC FOR Lden
PROJECT/CONTRACT: CNB-11.0E
RUN:

Roadway Name	Points Name	No.	Segment ADT Veh/24hrs existing	no project	with project	Auto				Mtrucks				Htrucks				Buses				Motorcycles			
						% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h
Roadway1	point1	1	6463	7687	7775	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point2	2	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point3	3	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point4	4	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point5	5	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point6	6	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point7	7	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point8	8																							
Roadway2	point9	9	6463	7687	7775	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point10	10	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point11	11	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point12	12	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point13	13	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point14	14	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point15	15	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point16	16																							
Roadway3	point17	17	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point18	18	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point19	19	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point20	20	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point21	21	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point22	22	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point23	23	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point24	24																							
Roadway4	point25	25	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point26	26	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point27	27	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point28	28	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point29	29	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point30	30	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point31	31	9695	11530	11663	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point32	32																							
Roadway5	point33	33	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point34	34	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point35	35	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0

Name	Name	No.	Segment ADT Veh/24hrs existing	no project	with project	Auto				Mtrucks				Htrucks				Buses				Motorcycles			
						% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h
	point36	36	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point37	37	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point38	38	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point39	39	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point40	40	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point41	41	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point42	42	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point43	43	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point44	44	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point45	45	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point46	46	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point47	47	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point48	48	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point49	49	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point50	50	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point51	51	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point52	52	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point53	53																							
Roadway11	point111	111	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point112	112	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point113	113	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point114	114	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point115	115	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point116	116	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point117	117	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point118	118	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point119	119	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point120	120	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point121	121	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point122	122	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point123	123	6943	7933	7959	0	97	97	97	0	2	2	2	0	1	1	1	0	0	0	0	0	0	0	0
	point124	124	6463	7687	7775	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point125	125	6463	7687	7775	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point126	126																							
Roadway12	point127	127	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point128	128	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point129	129	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point130	130	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point131	131	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point132	132	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point133	133	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point134	134	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point135	135	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point136	136	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point137	137	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0

Name	Name	No.	Segment ADT Veh/24hrs existing	no project	with project	Auto				Mtrucks				Htrucks				Buses				Motorcycles			
						% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h
	point138	138	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point139	139	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point140	140	6463	7687	7775	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point141	141																							
Roadway13	point142	142	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point143	143	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point144	144	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point145	145	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point146	146	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point147	147	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point148	148	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point149	149	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point150	150	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point151	151	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point152	152	6943	7933	7959	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	point153	153	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point154	154	6943	7933	7959	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point155	155	6463	7687	7775	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point156	156																							
Roadway14	point157	157	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point158	158	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point159	159	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point160	160	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point161	161	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point162	162	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point163	163	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point164	164	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point165	165	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point166	166	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point167	167	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point168	168	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point169	169	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point170	170	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point171	171	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point172	172																							
Roadway15	point173	173	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point174	174	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point175	175	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point176	176	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point177	177	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point178	178	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point179	179	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point180	180	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point181	181	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point182	182	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0

Name	Name	No.	Segment ADT Veh/24hrs existing	no project	with project	Auto				Mtrucks				Htrucks				Buses				Motorcycles			
						% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h
	point183	183	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point184	184	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point185	185	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point186	186	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point187	187	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point188	188																							
Roadway16	point189	189	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point190	190	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point191	191	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point192	192	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point193	193	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point194	194	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point195	195	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point196	196	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point197	197	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point198	198	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point199	199	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point200	200	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point201	201	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point202	202	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point203	203	9257	10577	10612	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point204	204																							
Roadway17	point205	205	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point206	206	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point207	207	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point208	208	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point209	209	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point210	210	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point211	211	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point212	212	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point213	213	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point214	214	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point215	215	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point216	216	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point217	217																							
Roadway18	point218	218	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point219	219	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point220	220	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point221	221	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point222	222	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point223	223	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point224	224	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point225	225	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point226	226	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point227	227	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0

Name	Name	No.	Segment ADT Veh/24hrs existing	no project	with project	Auto				Mtrucks				Htrucks				Buses				Motorcycles			
						% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h
	point228	228	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point229	229	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point230	230																							
Roadway19	point231	231	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point232	232	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point233	233	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point234	234	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point235	235	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point236	236	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point237	237	2477	2661	2695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point238	238	2477	2661	2695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point239	239																							
Roadway20	point240	240	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point241	241	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point242	242	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point243	243	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point244	244	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point245	245	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point246	246	2477	2661	2695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point247	247	2477	2661	2695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point248	248																							
Roadway21	point249	249	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point250	250	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point251	251	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point252	252	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point253	253	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point254	254	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point255	255	2477	2661	2695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point256	256	2477	2661	2695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point257	257																							
Roadway22	point258	258	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point259	259	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point260	260	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point261	261	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point262	262	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point263	263	3096	3326	3369	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point264	264	2477	2661	2695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point265	265	2477	2661	2695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point266	266																							
Roadway23	point267	267	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point268	268	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point269	269	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point270	270	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point271	271	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point272	272	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0

Name	Name	No.	Segment ADT Veh/24hrs existing	no project	with project	Auto				Mtrucks				Htrucks				Buses				Motorcycles			
						% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h
	point273	273	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point274	274	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point275	275	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point276	276																							
Roadway24	point277	277	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point278	278	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point279	279	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point280	280	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point281	281	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point282	282	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point283	283	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point284	284	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point285	285	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point286	286																							
Roadway25	point287	287	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point288	288	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point289	289	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point290	290	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point291	291	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point292	292	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point293	293	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point294	294	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point295	295	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point296	296	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point297	297	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point298	298																							
Roadway26	point299	299	6193	6653	6738	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point300	300	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point301	301	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point302	302	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point303	303	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point304	304	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point305	305	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point306	306	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point307	307	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point308	308	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point309	309	5868	6315	6378	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point310	310																							
Roadway27	point311	311	2477	2661	2695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point312	312	2477	2661	2695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point313	313	2477	2661	2695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point314	314																							
Roadway28	point315	315	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point316	316	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point317	317	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0

Name	Name	No.	Segment ADT Veh/24hrs existing	no project	with project	Auto				Mtrucks				Htrucks				Buses				Motorcycles			
						% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h
	point318	318	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point319	319	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point320	320	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point321	321	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point322	322	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point323	323																							
Roadway30	point324	324	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point325	325	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point326	326	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point327	327	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point328	328	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point329	329	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point330	330	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point331	331	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point332	332																							
Roadway31	point333	333	6430	7653	7703	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point334	334	6307	7450	7500	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point335	335	6307	7450	7500	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point336	336	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point337	337	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point338	338	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point339	339	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point340	340	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point341	341	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point342	342	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point343	343	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point344	344	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point345	345	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point346	346	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point347	347	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point348	348																							
Roadway32	point349	349	6430	7653	7703	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point350	350	6307	7450	7500	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point351	351	6307	7450	7500	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point352	352	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point353	353	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point354	354	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point355	355	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point356	356	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point357	357	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point358	358	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point359	359	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point360	360	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point361	361	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point362	362	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0

Name	Name	No.	Segment ADT Veh/24hrs existing	no project	with project	Auto				Mtrucks				Htrucks				Buses				Motorcycles			
						% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h
	point363	363	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point364	364																							
Roadway33	point365	365	6430	7653	7703	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point366	366	6307	7450	7500	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point367	367	6307	7450	7500	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point368	368	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point369	369	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point370	370	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point371	371	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point372	372	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point373	373	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point374	374	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point375	375	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point376	376	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point377	377	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point378	378	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point379	379	7055	8218	8260	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point380	380																							
Roadway34	point381	381	10583	12328	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point382	382	10583	12328	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point383	383	10583	12328	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point384	384	10583	12328	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point385	385	10583	12328	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point386	386	10583	12328	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point387	387	10583	12328	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point388	388	10583	12328	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point389	389	10583	12328	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point390	390	10583	12328	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point391	391	10583	12328	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point392	392	10583	8218	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point393	393	9460	11175	11250	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point394	394	9460	11175	11250	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point395	395	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point396	396																							
Roadway35	point397	397	10583	12328	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point398	398	10583	12328	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point399	399	10583	12328	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point400	400	10583	12328	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point401	401	10583	12328	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point402	402	10583	12328	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point403	403	10583	12328	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point404	404	10583	12328	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point405	405	10583	12328	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point406	406	10583	12328	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point407	407	10583	12328	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0

Name	Name	No.	Segment ADT Veh/24hrs existing	no project	with project	Auto				Mtrucks				Htrucks				Buses				Motorcycles			
						% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h
	point408	408	10583	8218	12390	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point409	409	9460	11175	11250	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point410	410	9460	11175	11250	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point411	411	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point412	412																							
Roadway36	point413	413	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point414	414	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point415	415	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point416	416	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point417	417	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point418	418	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point419	419	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point420	420	9645	11480	11555	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	point421	421																							
Roadway37	point422	422	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point423	423	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point424	424	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point425	425	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point426	426	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point427	427	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point428	428	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point429	429	9645	11480	11555	97	97	97	72	2	2	2	72	1	1	1	72	0	0	0	0	0	0	0	0
	point430	430																							
Roadway39	point438	438	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point439	439	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point440	440	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point441	441	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point442	442	5230	5643	5230	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point443	443	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point444	444	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point445	445																							
Roadway40	point446	446	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point447	447	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point448	448	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point449	449	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point450	450	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point451	451	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point452	452	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point453	453	5230	5643	5230	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point454	454	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point455	455	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point456	456																							
Roadway41	point457	457	2615	2821	2848	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point458	458	2615	2821	2848	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point459	459	2615	2821	2848	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0

Name	Name	No.	Segment ADT Veh/24hrs existing	no project	with project	Auto				Mtrucks				Htrucks				Buses				Motorcycles			
						% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h	% D	% E	% N	S km/h
	point460	460																							
Roadway42	point461	461	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point462	462	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point463	463	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point464	464	5230	5643	5230	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point465	465	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point466	466	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point467	467																							
Roadway43	point468	468	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point469	469	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point470	470	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point471	471	5230	5643	5230	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point472	472	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point473	473	5230	5643	5695	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point474	474																							
Roadway44	point475	475	2615	2821	2848	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point476	476	2615	2821	2848	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point477	477	2615	2821	2848	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point478	478																							
Roadway45	point479	479	2615	2821	2848	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point480	480	2615	2821	2848	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point481	481	2615	2821	2848	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point482	482																							
Roadway46	point483	483	2615	2821	2848	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point484	484	2615	2821	2848	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point485	485	2615	2821	2848	97	97	97	64	2	2	2	64	1	1	1	64	0	0	0	0	0	0	0	0
	point486	486																							

The Planning Center 21-Mar-11
J. Vang TNM 2.5

INPUT: GROUND ZONES
PROJECT/CONTRACT: CNB-11: Mariner's Pointe
RUN:

Ground Zone Name	Type	Flow Resistivity cgs rayls	Points No.	Coordinates X m	Y m
Ground Zone1	Pavement	20000	1	415,831.00	720,488.70
			2	415,813.60	720,445.40
			3	415,804.90	720,423.50
			4	415,798.70	720,402.40
			5	415,803.80	720,401.90
			6	415,807.00	720,414.60
			7	415,814.90	720,443.10
			8	415,822.60	720,461.10
			9	415,835.00	720,486.40
Ground Zone2	Hard Soil	5000	10	415,843.20	720,178.30
			11	415,847.20	720,154.60
			12	415,848.90	720,122.60
			13	415,848.00	720,115.10
			14	415,852.90	720,117.70
			15	415,852.20	720,137.80
			16	415,849.20	720,154.90
			17	415,848.40	720,169.40
			18	415,845.70	720,178.90

Average Construction Generated Noise - Project Site

				hard or soft
Construction Noise at 50 Feet (dBA Leq)			50	0

Construction Phase	All Applicable Equipment in Use[1]	Minimum Required Equipment in Use[1]
Ground Clearing/Demolition	84	83
Excavation	89	71
Foundation Construction	77	77
Building Construction	84	72
Finishing and Site Cleanup	89	74

Construction Noise at Northern Residences 110

Construction Phase	All Applicable Equipment in Use[1]	Minimum Required Equipment in Use[1]
Ground Clearing/Grading	77	76
Excavation	82	64

Construction Noise at Southern Residences 195

Construction Phase	All Applicable Equipment in Use[1]	Minimum Required Equipment in Use[1]
Ground Clearing/Grading	72	71
Excavation	77	59

[1] Source: Bolt, Beranek and Newman, "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances," preparec for the USEPA, December 31, 1971. Based on analysis for Domestic Housing.

Average Construction Generated Noise - Parking Structure Construction Area

hard or soft

Construction Noise at 50 Feet (dBA Leq) 50 0

Construction Phase	All Applicable Equipment in Use[1]	Minimum Required Equipment in Use[1]
Ground Clearing/Demolition	84	83
Excavation	89	71
Foundation Construction	77	77
Building Construction	84	72
Finishing and Site Cleanup	89	74

Construction Noise at Northern Residences 90

Construction Phase	All Applicable Equipment in Use[1]	Minimum Required Equipment in Use[1]
Foundation Construction	72	72
Building Construction	79	67
Finishing and Site Cleanup	84	69

Construction Noise at Southern Residences 195

Construction Phase	All Applicable Equipment in Use[1]	Minimum Required Equipment in Use[1]
Foundation Construction	65	65
Building Construction	72	60
Finishing and Site Cleanup	77	62

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[1] Source: Bolt, Beranek and Newman, "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances," prepared for the USEPA, December 31, 1971. Based on analysis for Domestic Housing.

Average Construction Generated Noise - Commercial Building Construction Area

hard or soft

Construction Noise at 50 Feet (dBA Leq) 50 0

Construction Phase	All Applicable Equipment in Use[1]	Minimum Required Equipment in Use[1]
Ground Clearing/Demolition	84	83
Excavation	89	71
Foundation Construction	77	77
Building Construction	84	72
Finishing and Site Cleanup	89	74

Construction Noise at Northern Residences 100

Construction Phase	All Applicable Equipment in Use[1]	Minimum Required Equipment in Use[1]
Foundation Construction	71	71
Building Construction	78	66
Finishing and Site Cleanup	83	68

Construction Noise at Southern Residences 200

Construction Phase	All Applicable Equipment in Use[1]	Minimum Required Equipment in Use[1]
Foundation Construction	65	65
Building Construction	72	60
Finishing and Site Cleanup	77	62

[1] Source: Bolt, Beranek and Newman, "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances," prepared for the USEPA, December 31, 1971. Based on analysis for Domestic Housing.

Average Construction Generated Vibration

Vibration Annoyance Criteria

Receptor: **Average Vibration Level - Northern Residences** **Closest Distance (feet):** **115**

Equipment	Approximate Velocity Level at 25 ft, VdB	Approximate Velocity Level, VdB
Large bulldozer	87	74
Small bulldozer	58	45
Jackhammer	79	66
Loaded trucks	86	73
	Criteria	**78**

Receptor: **Average Vibration Levels - Southern Residences** **Average Distance (feet):** **205**

Equipment	Approximate Velocity Level at 25 ft, VdB	Approximate Velocity Level, VdB
Large bulldozer	87	69
Small bulldozer	58	40
Jackhammer	79	61
Loaded trucks	86	68
	Criteria	**78**

[1.] Determined based on use of jackhammers or pneumatic hammers that may be used for pavement demolition at a distance of 25 feet

Notes: RMS velocity calculated from vibration level (VdB) using the reference of one microinch/second.

Source: Based on methodology from the United States Department of Transportation Federal Transit Administration, *Transit Noise and Vibration Impact Assessment* (2006).

Maximum Construction Generated Vibration

Vibration Annoyance Criteria

Receptor:	Maximum Vibration Level - Northern Residencs	Closest Distance (feet):	65

Equipment	Approximate Velocity Level at 25 ft, VdB	Approximate Velocity Level, VdB
Large bulldozer	87	79
Small bulldozer	58	50
Jackhammer	79	71
Loaded trucks	86	78
	Criteria	**78**

Receptor:	Maximum Vibration Levels - Southern Residencs	Average Distance (feet):	120

Equipment	Approximate Velocity Level at 25 ft, VdB	Approximate Velocity Level, VdB
Large bulldozer	87	73
Small bulldozer	58	44
Jackhammer	79	65
Loaded trucks	86	72
	Criteria	**78**

Maximum Construction Generated Vibration

Structural Damage Criteria

Receptor:	**Maximum Vibration Levels - Northern Residences**	**Closest Distance (feet):**	**65**
Equipment	**Approximate RMS a Velocity at 25 ft, inch/second**	**Approximate RMS Velocity Level, inch/second**	
Large bulldozer	0.089	0.021	
Small bulldozer	0.003	0.001	
Jackhammer	0.035	0.008	
Loaded trucks	0.076	0.018	
	Criteria	**0.200**	

Receptor:	**Mission Foothil - Western Commercial Structure**	**Closest Distance (feet):**	**100**
Equipment	**Approximate RMS a Velocity at 25 ft, inch/second**	**Approximate RMS Velocity Level, inch/second**	
Large bulldozer	0.089	0.011	
Small bulldozer	0.003	0.0004	
Jackhammer	0.035	0.004	
Loaded trucks	0.076	0.010	
	Criteria	**0.200**	

[1.] Determined based on use of jackhammers or pneumatic hammers that may be used for pavement demolition at a distance of 25 feet

Notes: RMS velocity calculated from vibration level (VdB) using the reference of one microinch/second.

Source: Based on methodology from the United States Department of Transportation Federal Transit Administration, *Transit Noise and Vibration Impact Assessment* (2006).

Appendix I.
Service Letters

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Mariner’s Pointe Project MND
Fire Service Questionnaire

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1. Please provide the locations of the fire stations available to respond to the project and its vicinity and the equipment and personnel available at each location.

FS Location	Equipment	Personnel
Station1 - 110 E. Balboa	One Engine	3
Station 2 - 475 32nd Street	One Tractor Drawn Aerial Ladder Truck, One Engine, One Paramedic Van	4 3 2
Station 3 - 868 Santa Barbara	One Tractor Drawn Aerial Ladder Truck, One Engine, One Paramedic Van, One Battalion Command Vehicle	4 3 2 1
Station 4 – 124 Marine Ave.	One Engine	3
Station 5 – 410 Marigold Ave	One Engine, One Paramedic Van	3 2
Station 6 – 1348 Irvine Ave.	One Engine	3
Station 7 - 20401 SW Acacia St.	One Engine	3
Station 8 - 6502 Ridge Park Road	One Engine	3

Station 6 and paramedics from Station 2 responding would be the first in engine and medic units for a medical aid, but crews from Station 4 and 2 would join them and respond as part of a regular 1st alarm assignment for a fire.

The Fire Department divides its staff into three shifts with approximately 39 personnel each shift, for an overall total of 117 Fire Suppression and EMS personnel working at the 8 fire stations. Each station contains one engine company. Three stations have paramedic ambulances, and two have ladder trucks. Of the 117 employees, 8 paramedics serve per shift. There are always two paramedics on duty at Stations 2, 3, and 5 with paramedic ambulances. Station 8 and Truck 2 also has one paramedic firefighter.

2. Please confirm that the NBFD is comprised of the four following divisions: 1) Fire Operations, 2) Emergency Medical Services, 3) Fire Prevention, and 4) Fire Training.

The Fire Department operates 5 divisions: Fire Operations, Emergency Medical Services (EMS), Fire Prevention, Training and Community Education and Fire Administration.

3. Please confirm that NBFD currently staff 154 full-time and 225 seasonal employees. Please provide the total number of fire suppression and emergency medical services personnel.

151 Full-time and 200 seasonal Lifeguard employees

The Fire Operations Division has the fire suppression and emergency medical services personnel with 117 full-time fire fighters and is comprised of personnel and equipment that respond to emergency incidents. The Fire Department provides all paramedic and emergency transport service to the City.

4. What is the response time to the project site? What is the department's standard for desired response time for emergency and non-emergency calls?

Based on roughly five and a half years of data and the polygon we created surrounding Dover and Coast Hwy, there were 14 "Fire"(Effective response force) Incidents resulting in an average response time of 5:43 from the 911 call to first unit on arrived. In addition there were 209 "EMS" medical aid incidents with an average total response time of 5:08.

The Departments Standard Operating Procedure, 3.A. 201, establishes response time objectives to requests for assistance.
Total response time is the elapsed time from the moment of the call receipt until the appropriate responding unit arrives on scene and is a key performance indicator of how well the fire department is meeting the community's public safety and response needs.

Those total response time objectives are:

First Due Response requiring Personal Protective Equipment (P.P.E.)– less than 5 minutes and 20 seconds, 90% of the time.
First Due Response without P.P.E. – less than 5 minutes, 90% of the time
Advanced Life Support Response with P.P.E. – less than 9 minutes and 20 seconds, 90% of the time.
Advanced Life Support Response without P.P.E. – less than 9 minutes, 90% of the time.
Effective Response Force requiring P.P.E. – less than 9 minutes and 20 seconds, 90% of the time.
Effective Response Force without P.P.E. – less than 9 minutes, 90% of the time.

The City's time values are based upon national standards published by the National Fire Protection Association in NFPA Standard 1710.

Other criteria that affect response times with an increase in population are the availability of apparatus to respond to the calls.

With the increase number of responses the amount of time that a paramedic van has not been available because they are already committed to another emergency will increase.

5. What is the approximate fire flow requirement for the proposed project?

The project would have to determine the required fire flow in accordance with Newport Beach Fire Department Guideline B.01 – Determination of Required Fire Flow. I have not been provided with detailed enough plans or information for this determination. Fire Flow is based on square footage and type of construction. One problem with this site is the water line with a hydrant now is a dead end and I have heard the flow is less than 500 gpm. There is however another line running down Dover they may be able to tap into.

6. Are there any existing deficiencies in the level of fire protection service currently provided to the area including and surrounding the project site?

The water supply and additional hydrants for a new large development.

7. Are the existing equipment and personnel adequate to maintain a sufficient level of service for the proposed project and other properties within this same service area? If not, what additional facilities, personnel and equipment would be needed? What factors are used to project these needs?

Yes

8. What mitigation measures, if any, are required or recommended to reduce fire hazards and reduce potential impacts on fire service?

A Conditions for Approval List was provided on 9/8/10 following a Planning Commission Project Review. In addition to the required fire flow to the property mentioned above it listed:

1. **Automatic Fire Sprinklers throughout.**
2. **Gurney accommodating elevator**
3. **Fire Apparatus access onto property with minimum height and department approved apparatus turning radius.**
4. **A manual fire alarm with an occupant notification system**

Currently, our Fire and Building codes help mitigate potential problems through prevention. By having these codes we have better buildings with fire protection systems and warning devices for the public using them. The manpower, apparatus and equipment needs will always need to be adjusted to meet the demand for public safety services.

9. Are there any new facilities coming online that would serve the project? If yes, what is the location and how will it be staffed and equipped?

None planned for the Fire Department

10. Please add any other comments you may wish to make regarding this project.

None at this time

Response Prepared By:

Ron Gamble		**Division Chief/Fire Marshal**
Name		**Title**
Newport Beach Fire Department		**949-644-3353**
Agency	**Date**	**Phone**

NEWPORT BEACH POLICE DEPARTMENT
870 Santa Barbara, P.O. Box 7000, Newport Beach, CA 92658-7000

March 17, 2011

Sent Via Email

Mr. John Vang
Assistant Environmental Planner
The Planning Center
1580 Metro Drive
Costa Mesa, California

RE: Preparation of the Mariner's Pointe Mitigated Negative Declaration (CNB-11.0E)

Mr. Vang

I have received your letter dated March 10, 2011 concerning the proposed project at 200 West Coast Highway in the City of Newport Beach. The location will be served by the Police Department's headquarters located at 870 Santa Barbara Drive. At this time, the project does not appear to present any additional staffing challenges for the Police Department.

I will refer you to the City of Newport Beach Resource Allocation Plan (RAP) concerning the Police Department's staffing level and equipment. The RAP can be found on the City's website, www. newportbeach.gov. The average response time for an emergency call is under four minutes and a non-emergency call is under ten minutes.

If you need any further assistance, please feel free to call me at (949) 644-3710.

Sincerely,

Lieutenant William S. Hartford
Executive Officer
Office of the Chief of Police
Newport Beach Police Department
bhartford@nbpd.org
949.644.3710