MITIGATED NEGATIVE DECLARATION
MARSH PARK

Appendices:

A. Air Quality
B. Noise
C. Traffic

Mountains Recreation and Conservation Authority

July 2012

APPENDIX A

AIR QUALITY ANALYSIS

AIR QUALITY IMPACT ANALYSIS

MARSH PARK

CITY OF LOS ANGELES, CALIFORNIA

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CLIMATE AND METEOROLOGY

REGIONAL CLIMATE

The North Pacific high-pressure cell is the dominant climatic influence over the eastern North Pacific Ocean, particularly during the summer months. This high-pressure cell produces a predominantly northwesterly flow of maritime air over the California coastal waters. During the winter, the Pacific High weakens and moves south, resulting in weaker and less persistent northwesterly winds along the California coast than in the warmer half of the year.

As the air mass approaches the coast of California, this large-scale circulation pattern is modified by local influences. The differential heating between the desert and the adjacent Pacific Ocean modifies the prevailing winds, enhancing them during the warmer half of the year and weakening the winds during the colder portion. On a local and sub-regional basis, the airflow in California is channeled by its mountain ranges and valley. The coastal mountain ranges limit the flow of maritime air into the interior of California. This transition from a cool and damp marine environment to a dry and warm continental climate therefore occurs over a fairly short distance.

SOUTH COAST AIR BASIN

The South Coast Air Basin (SCAB) is a 6,600 square mile coastal plain bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The SCAB includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. Basin-wide conditions are characterized by warm summers, mild winters, infrequent rainfall, moderate onshore daytime breezes, and moderate humidities.

The topography and climate of Southern California combine to produce unhealthful air quality in the South Coast Air Basin. Low temperature inversion, light winds, shallow vertical mixing, and extensive sunlight, in conjunction with topographical features such as adjacent mountain ranges that hinder dispersion of air pollutants, combine to create degraded quality, especially in inland valleys of the basin.

LOCAL METEOROLOGY

In the Glassel Park area, winds blow primarily from the southwest (30 percent) and south (13 percent), with lower frequencies for the adjacent wind sectors (about 10 percent for west and for southeast, and about 8 percent for east), and still lower frequencies for opposing wind sectors (5 percent each for northwest and for north). Nocturnal drainage winds, especially in the cooler months, blow from the northeast, as do the occasional Santa Ana winds. The strongest average winds are from the west-southwest (7.7 miles per hour [mph], annual average) and southwest (6.9 mph). Except during strong occasional Santa Anas, the lightest winds are normally from the north-northeast (3.6 miles per hour).

AIR QUALITY SETTING

AMBIENT AIR QUALITY STANDARDS (AAQS)

In order to gauge the significance of the air quality impacts of the Marsh Park Project, those impacts, together with existing background air quality levels, must be compared to the applicable ambient air quality standards. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those people 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, called "sensitive receptors." Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. Recent research has shown, however, that chronic exposure to ozone (the primary ingredient in photochemical smog) may lead to adverse respiratory health even at concentrations close to the ambient standard.

National AAQS were established in 1971 for six pollution species with states retaining the option to add other pollutants, require more stringent compliance, or to include different exposure periods. The initial attainment deadline of 1977 was extended several times in air quality problem areas like Southern California. In 2003, the Environmental Protection Agency (EPA) adopted a rule which extended and established a new attainment deadline for ozone for the year 2021. Because the State of California had established AAQS several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently in effect in California are shown in Table 1. Sources and health effects of various pollutants are shown in Table 2.

The Federal Clean Air Act Amendments (CAAA) of 1990 required that the U.S. Environmental Protection Agency (EPA) review all national AAQS in light of currently known health effects. EPA was charged with modifying existing standards or promulgating new ones where appropriate. EPA subsequently developed standards for chronic ozone exposure (8+ hours per day) and for very small diameter particulate matter (called "PM-2.5"). New national AAQS were adopted in 1997 for these pollutants.

Planning and enforcement of the federal standards for PM-2.5 and for ozone (8-hour) were challenged by trucking and manufacturing organizations. In a unanimous decision, the U.S. Supreme Court ruled that EPA did not require specific congressional authorization to adopt national clean air standards. The Court also ruled that health-based standards did not require preparation of a cost-benefit analysis. The Court did find, however, that there was some inconsistency between existing and "new" standards in their required attainment schedules. Such attainment-planning schedule inconsistencies centered mainly on the 8-hour ozone standard. EPA subsequently agreed to downgrade the attainment designation for a large number of communities to “non-attainment” for the 8-hour ozone standard.

Table 1

Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [1]		Federal Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)		
Respirable Particulate Matter (PM10)	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter (PM2.5)	24 Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	15.0 µg/m^3		
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1 Hour	20 ppm (23 mg/m^3)		35 ppm (40 mg/m^3)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	—
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (57 µg/m3)	Gas Phase Chemiluminescence	53 ppb (100 µg/m^3) (see footnote 8)	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.18 ppm (339 µg/m^3)		100 ppb (188 µg/m^3) (see footnote 8)	None	
Sulfur Dioxide (SO_2)	24 Hour	0.04 ppm (105 µg/m^3)	Ultraviolet Fluorescence	—	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)[9]
	3 Hour	—		—	0.5 ppm (1300 µg/m^3) (see footnote 9)	
	1 Hour	0.25 ppm (655 µg/m^3)		75 ppb (196 µg/m^3) (see footnote 9)	—	
Lead[10]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	—
	Calendar Quarter	—		1.5 µg/m^3	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average[11]	—		0.15 µg/m^3		
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per kilometer — visibility of ten miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		No Federal Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[10]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

See footnotes on next page ...

For more information please call ARB-PIO at (916) 322-2990

California Air Resources Board (09/08/10)

Table 1
(continued)

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter—PM10, PM2.5, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.

8. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010). Note that the EPA standards are in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standards of 53 ppb and 100 ppb are identical to 0.053 ppm and 0.100 ppm, respectively.

9. On June 2, 2010, the U.S. EPA established a new 1-hour SO_2 standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. EPA also proposed a new automated Federal Reference Method (FRM) using ultraviolet technology, but will retain the older pararosaniline methods until the new FRM have adequately permeated State monitoring networks. The EPA also revoked both the existing 24-hour SO_2 standard of 0.14 ppm and the annual primary SO_2 standard of 0.030 ppm, effective August 23, 2010. The secondary SO_2 standard was not revised at that time; however, the secondary standard is undergoing a separate review by EPA. Note that the new standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the new primary national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

10. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

11. National lead standard, rolling 3-month average: final rule signed October 15, 2008.

Table 2
Health Effects of Major Criteria Pollutants

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust. • Natural events, such as decomposition of organic matter.	• Reduced tolerance for exercise. • Impairment of mental function. • Impairment of fetal development. • Death at high levels of exposure. • Aggravation of some heart diseases (angina).
Nitrogen Dioxide (NO_2)	• Motor vehicle exhaust. • High temperature stationary combustion. • Atmospheric reactions.	• Aggravation of respiratory illness. • Reduced visibility. • Reduced plant growth. • Formation of acid rain.
Ozone (O_3)	• Atmospheric reaction of organic gases with nitrogen oxides in sunlight.	• Aggravation of respiratory and cardiovascular diseases. • Irritation of eyes. • Impairment of cardiopulmonary function. • Plant leaf injury.
Lead (Pb)	• Contaminated soil.	• Impairment of blood function and nerve construction. • Behavioral and hearing problems in children.
Fine Particulate Matter (PM-10)	• Stationary combustion of solid fuels. • Construction activities. • Industrial processes. • Atmospheric chemical reactions.	• Reduced lung function. • Aggravation of the effects of gaseous pollutants. • Aggravation of respiratory and cardio respiratory diseases. • Increased cough and chest discomfort. • Soiling. • Reduced visibility.
Fine Particulate Matter (PM-2.5)	• Fuel combustion in motor vehicles, equipment, and industrial sources. • Residential and agricultural burning. • Industrial processes. • Also, formed from photochemical reactions of other pollutants, including NOx, sulfur oxides, and organics.	• Increases respiratory disease. • Lung damage. • Cancer and premature death. • Reduces visibility and results in surface soiling.
Sulfur Dioxide (SO_2)	• Combustion of sulfur-containing fossil fuels. • Smelting of sulfur-bearing metal ores. • Industrial processes.	• Aggravation of respiratory diseases (asthma, emphysema). • Reduced lung function. • Irritation of eyes. • Reduced visibility. • Plant injury. • Deterioration of metals, textiles, leather, finishes, coatings, etc.

Source: California Air Resources Board, 2002.

Evaluation of the most current data on the health effects of inhalation of fine particulate matter prompted the California Air Resources Board (ARB) to recommend adoption of the statewide PM-2.5 standard that is more stringent than the federal standard. This standard was adopted in 2002. The State PM-2.5 standard is more of a goal in that it does not have specific attainment planning requirements like a federal clean air standard, but only requires continued progress towards attainment.

Similarly, the ARB extensively evaluated health effects of ozone exposure. A new state standard for an 8-hour ozone exposure was adopted in 2005, which aligned with the federal 8-hour standard. The California 8-hour ozone standard of 0.07 ppm is more stringent than the federal 8-hour standard of 0.075 ppm. The state standard, however, does not have a specific attainment deadline. California air quality jurisdictions are required to make steady progress towards attaining state standards, but there are no hard deadlines or any consequences of non-attainment. During the same re-evaluation process, the ARB adopted an annual state standard for nitrogen dioxide ($NO_{2)}$ that is more stringent than the corresponding federal standard, and strengthened the state one-hour NO_2 standard.

As part of EPA's 2002 consent decree on clean air standards, a further review of airborne particulate matter (PM) and human health was initiated. A substantial modification of federal clean air standards for PM was promulgated in 2006. Standards for PM-2.5 were strengthened, a new class of PM in the 2.5 to 10 micron size was created, some PM-10 standards were revoked, and a distinction between rural and urban air quality was adopted.

In response to continuing evidence that ozone exposure at levels just meeting federal clean air standards is demonstrably unhealthful, EPA had proposed a further strengthening of the 8-hour standard. Draft standards were published. The proposed future 8-hour standard was 0.065 ppm. Environmental organizations generally praised this proposal. Most manufacturing, transportation or power generation groups opposed the new standard as economically unwise in an uncertain fiscal climate. In response to these concerns, the revision to the 8-hour federal ozone standard was placed on indefinite hold.

A new federal one-hour standard for nitrogen dioxide (NO_2) has also recently been adopted. This standard is more stringent than the existing state standard. Based upon air quality monitoring data in the South Coast Air Basin, the California Air Resources Board has requested the EPA to designate the basin as being in attainment for this revised standard.

BASELINE AIR QUALITY

Existing levels of ambient air quality and historical trends in the project area are best documented by measurements made by SCAQMD at its Central Los Angeles air monitoring station. This station measures both regional pollution levels such as smog, as well as primary vehicular pollution levels near busy roadways such as carbon monoxide or nitrogen oxides. Pollutants such as particulates (PM-10 and PM-2.5) are also monitored at this location. From these data the following conclusions can be drawn:

1. Photochemical smog (ozone) levels periodically exceed standards. The 1-hour state standard was violated an average of 4 days a year in the last six years near downtown Los Angeles. The federal 8-hour standard has been exceeded an average of 3 days a year within the same period and the state 8-hour standard 7 times per year. While ozone levels are still high, they are much lower than 10 to 20 years ago. Attainment of all clean air standards in the project vicinity is not likely to occur soon, but the severity and frequency of violations is expected to continue to slowly decline during the current decade.

2. PM-10 levels have exceeded the state 24-hour standard on approximately 7 percent of all measurement days. The three times less stringent federal 24 hour-standard has not been exceeded in the last six years. Year to year fluctuations of overall maximum 24-hour PM-10 levels seem to follow no discernable trend, though 2006 had the lowest maximum 24-hour concentration in recent history.

3. A substantial fraction of PM-10 is comprised of ultra-small diameter particulates capable of being inhaled into deep lung tissue (PM-2.5). Both the frequency of violations of particulate standards, as well as high percentage of PM-2.5, are air quality concerns in the project area. PM-2.5 readings have exceeded the federal 24-hour PM-2.5 ambient standard on 5 percent of the measured days per year for the last six years. Similar to PM-10, PM-2.5 readings were lowest in 2006.

4. More localized pollutants such as carbon monoxide, nitrogen oxides, etc. are very low near the project site because background levels, even near downtown Los Angles, never exceed allowable levels. There is substantial excess dispersive capacity to accommodate localized vehicular air pollutants such as NOx or CO without any threat of violating applicable AAQS.

Although complete attainment of every clean air standard is not yet imminent, extrapolation of the steady improvement trend suggests that such attainment could occur within the reasonably near future in the proposed project vicinity.

Table 3
Project Area Air Quality Monitoring Summary – 2004-2009
(Days Standards Were Exceeded and Maximum Observed Levels)

Pollutant/Standard	2004	2005	2006	2007	2008	2009
Ozone						
1-Hour > 0.09 ppm (S)	7	2	8	3	3	3
8-Hour > 0.07 ppm (S)	14	4	7	6	6	5
8- Hour > 0.075 ppm (F)	5	2	3	3	3	2
Max. 1-Hour Conc. (ppm)	0.11	0.12	0.11	0.12	0.11	0.14
Max. 8-Hour Conc. (ppm)	0.09	0.10	0.08	0.10	0.09	0.10
Carbon Monoxide						
1-Hour > 20. ppm (S)	0	0	0	0	0	0
1-Hour > 9. ppm (S, F)	0	0	0	0	0	0
Max 1-Hour Conc. (ppm)	4.2	3.9	3.5	3.2	2.9	3.0
Max 8-Hour Conc. (ppm)	3.2	3.0	2.7	2.2	2.0	2.2
Nitrogen Dioxide						
1-Hour > 0.18 ppm (S)	0	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.16	0.13	0.11	0.10	0.12	0.12
Inhalable Particulates (PM-10)						
24-Hour > 50 $\mu g/m^3$ (S)	5/61	3/61	3/59	5/56	2/45	4/60
24-Hour > 150 $\mu g/m^3$ (F)	0/61	0/61	0/59	0/56	0/45	0/60
Max. 24-Hr. Conc. ($\mu g/m^3$)	72.	69.	58.	77.	77.	72.
Ultra-Fine Particulates (PM-2.5)						
24-Hour > 35 $\mu g/m^3$ (F)	31/316	22/350	11/330	20/324	10/332	7/365
Max. 24-Hr. Conc. ($\mu g/m^3$)	75.0	73.7	56.2	64.1	78.3	61.7

(S) - State ambient standard; (F) - Federal ambient standard
Source: SCAQMD Station #087 (Central)

AIR QUALITY PLANNING

The Federal Clean Air Act (1977 Amendments) required that designated agencies in any area of the nation not meeting national clean air standards must prepare a plan demonstrating the steps that would bring the area into compliance with all national standards. The SCAB could not meet the deadlines for ozone, nitrogen dioxide, carbon monoxide, or PM-10. In the SCAB, the agencies designated by the governor to develop regional air quality plans are the SCAQMD and the Southern California Association of Governments (SCAG). The two agencies first adopted an Air Quality Management Plan (AQMP) in 1979 and revised it several times as earlier attainment forecasts were shown to be overly optimistic.

The 1990 Federal Clean Air Act Amendment (CAAA) required that all states with air-sheds with "serious" or worse ozone problems submit a revision to the State Implementation Plan (SIP). Amendments to the SIP have been proposed, revised and approved over the past decade. The most current regional attainment emissions forecast for ozone precursors (ROG and NOx) and for carbon monoxide (CO) and for particulate matter are shown in Table 4. Substantial reductions in emissions of ROG, NOx and CO are forecast to continue throughout the next several decades. Unless new particulate control programs are implemented, PM-10 and PM-2.5 are forecast to slightly increase.

The Air Quality Management District (AQMD) adopted an updated clean air "blueprint" in August 2003. The 2003 AQMP was approved by the EPA in 2004. The Air Quality Management Plan (AQMP) outlined the air pollution measures needed to meet federal health-based standards for ozone by 2010 and for particulates (PM-10) by 2006. The 2003 AQMP was based upon the federal one-hour ozone standard which was revoked late in 2005 and replaced by an 8-hour federal standard. Because of the revocation of the hourly standard, a new air quality planning cycle was initiated.

With re-designation of the air basin as non-attainment for the 8-hour ozone standard, a new attainment plan was developed. This plan shifted most of the one-hour ozone standard attainment strategies to the 8-hour standard. As previously noted, the attainment date was to "slip" from 2010 to 2021. The updated attainment plan also includes strategies for ultimately meeting the federal PM-2.5 standard.

Because projected attainment by 2021 requires control technologies that do not exist yet, the SCAQMD requested a voluntary "bump-up" from a "severe non-attainment" area to an "extreme non-attainment" designation for ozone. The extreme designation will allow a longer time period for these technologies to develop. If attainment cannot be demonstrated within the specified deadline without relying on "black-box" measures, EPA would have been required to impose sanctions on the region had the bump-up request not been approved. In April, 2010, the EPA approved the change in the non-attainment designation from "severe-17" to "extreme." This reclassification sets a later attainment deadline, but also requires the air basin to adopt even more stringent emissions controls.

Table 4

South Coast Air Basin Emissions Forecasts (Emissions in tons/day)

Pollutant	2005[a]	2010[b]	2015[b]	2020[b]
NOx	985	742	580	468
ROG	735	576	526	505
CO	4124	2950	2476	2203
PM-10	281	286	297	307
PM-2.5	103	102	102	103

[a]2005 Base Year.
[b]With current emissions reduction programs and adopted growth forecasts.

Source: California Air Resources Board, The 2009 California Almanac of Emission & Air Quality.

In other air quality attainment plan reviews, EPA has disapproved part of the SCAB PM-2.5 attainment plan included in the AQMP. EPA has stated that the current attainment plan relies on PM-2.5 control regulations that have not yet been approved or implemented. It is expected that a number of rules that are pending approval will remove the identified deficiencies. If these issues are not resolved within the next several years, federal funding sanctions for transportation projects could result.

Projects such as the proposed Marsh Park project do not directly relate to the AQMP in that there are no specific air quality programs or regulations governing "recreational" development. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use is the primary yardstick by which impact significance of planned growth is determined. If a given project incorporates any available transportation control measures that can be implemented on a project-specific basis, and if the scope and phasing of a project are consistent with adopted forecasts as shown in the Regional Comprehensive Plan (RCP), then the regional air quality impact of project growth would not be significant because of planning inconsistency. The SCAQMD, however, while acknowledging that the AQMP is a growth-accommodating document, does not favor designating regional impacts as less-than-significant just because the proposed development is consistent with regional growth projections. Air quality impact significance for the proposed project has therefore been analyzed on a project-specific basis.

AIR QUALITY IMPACT

STANDARDS OF SIGNIFICANCE

Air quality impacts are considered "significant" if they cause clean air standards to be violated where they are currently met, or if they "substantially" contribute to an existing violation of standards. Any substantial emissions of air contaminants for which there is no safe exposure, or nuisance emissions such as dust or odors, would also be considered a significant impact.

Appendix G of the California CEQA Guidelines offers the following five tests of air quality impact significance. A project would have a potentially significant impact if it:

a. Conflicts with or obstructs implementation of the applicable air quality plan.

b. Violates any air quality standard or contributes substantially to an existing or projected air quality violation.

c. Results in a cumulatively considerable net increase of any criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

d. Exposes sensitive receptors to substantial pollutant concentrations.

e. Creates objectionable odors affecting a substantial number of people.

Primary Pollutants

Air quality impacts generally occur on two scales of motion. Near an individual source of emissions or a collection of sources such as a crowded intersection or parking lot, levels of those pollutants that are emitted in their already unhealthful form will be highest. Carbon monoxide (CO) is an example of such a pollutant. Primary pollutant impacts can generally be evaluated directly in comparison to appropriate clean air standards. Violations of these standards where they are currently met, or a measurable worsening of an existing or future violation, would be considered a significant impact. Many particulates, especially fugitive dust emissions, are also primary pollutants. Because of the non-attainment status of the South Coast Air Basin (SCAB) for PM-10, an aggressive dust control program is required to control fugitive dust during project construction.

Secondary Pollutants

Many pollutants, however, require time to transform from a more benign form to a more unhealthful contaminant. Their impact occurs regionally far from the source. Their incremental

regional impact is minute on an individual basis and cannot be quantified except through complex photochemical computer models. Analysis of significance of such emissions is based upon a specified amount of emissions (pounds, tons, etc.) even though there is no way to translate those emissions directly into a corresponding ambient air quality impact.

Because of the chemical complexity of primary versus secondary pollutants, the South Coast Air Quality Management District (SCAQMD) has designated significant emissions levels as surrogates for evaluating regional air quality impact significance independent of chemical transformation processes. Projects with daily emissions that exceed any of the following emission thresholds are recommended by the SCAQMD to be considered significant under CEQA guidelines:

Pollutant	Construction	Operations
ROG	75	55
NOx	100	55
CO	550	550
PM-10	150	150
PM-2.5	55	55
SOx	150	150
Lead	3	3

Source: SCAQMD CEQA Air Quality Handbook, November, 1993 Rev.

Additional Indicators

In its CEQA Handbook, the SCAQMD also states that additional indicators should be used as screening criteria to determine the need for further analysis with respect to air quality. The additional indicators are as follows:

- Project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation

- Project could result in population increases within the regional statistical area which would be in excess of that projected in the AQMP and in other than planned locations for the project's build-out year.

- Project could generate vehicle trips that cause a CO hot spot.

The SCAQMD CEQA Handbook also identifies various secondary significance criteria related to toxic, hazardous or odorous air contaminants. Hazardous air contaminants are also contained within the small diameter particulate matter ("PM-2.5") fraction of diesel exhaust. Such exhaust will be generated by heavy construction equipment.

CONSTRUCTION ACTIVITY IMPACTS

Dust is typically the primary concern during construction of new buildings and infrastructure. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive emissions." Emission rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). These parameters are not known with any reasonable certainty prior to project development and may change from day to day. Any assignment of specific parameters to an unknown future date is speculative and conjectural.

Because of the inherent uncertainty in the predictive factors for estimating fugitive dust generation, regulatory agencies typically use one universal "default" factor based on the area disturbed assuming that all other input parameters into emission rate prediction fall into midrange average values. This assumption may or may not be totally applicable to site-specific conditions on the proposed project site. As noted previously, emissions estimation for project-specific fugitive dust sources is therefore characterized by a considerable degree of imprecision.

Average daily PM-10 emissions during site grading and other disturbance are shown in the CalEEMod.2011.1.1 computer model to be about 10 pounds per acre. This estimate presumes the use of reasonably available control measures (RACMs). The SCAQMD requires the use of best available control measures (BACMs) for fugitive dust from construction activities.

Current research in particulate-exposure health suggests that the most adverse effects derive from ultra-small diameter particulate matter comprised of chemically reactive pollutants such as sulfates, nitrates or organic material. A national clean air standard for particulate matter of 2.5 microns or smaller in diameter (called "PM-2.5") was adopted in 1997. A limited amount of construction activity particulate matter is in the PM-2.5 range. PM-2.5 emissions are estimated to comprise 10-20 percent of PM-10.

In addition to fine particles that remain suspended in the atmosphere semi-indefinitely, construction activities generate many larger particles with shorter atmospheric residence times. This dust is comprised mainly of large diameter inert silicates that are chemically non-reactive and are further readily filtered out by human breathing passages. These fugitive dust particles are therefore more of a potential soiling nuisance as they settle out on parked cars, outdoor furniture or landscape foliage rather than any adverse health hazard. The deposition distance of most soiling nuisance particulates is less than 100 feet from the source (EPA, 1995).

Exhaust emissions will result from on and off-site heavy equipment. The types and numbers of equipment will vary among contractors such that such emissions cannot be quantified with certainty. Initial demolition will shift toward grading and construction then for paving, painting, etc. The CalEEMod 2011.1.1 computer model was used to calculate emissions from the following prototype construction equipment fleet:

Demolition **17,300 sf of structure**	1 Excavator
	1 Concrete Saw
	1 Dozer
Grading **Haul 3,841 CY fill**	1 Excavator
	1 Grader
	1 Dozer
	1 Backhoe
Construction	1 Crane
	1 Forklift
	1 Generator Set
	1 Tractor/Loader/Backhoe
	1 Welder
Paving	2 Cement Mixers
	1 Paver
	2 Rollers
	1 Tractor/Loader/Backhoe

Utilizing this indicated equipment fleet, demolition quantities and grading information the following worst case daily emissions are calculated by CalEEMod:

Construction Activity Emissions
Maximum Daily Emissions (pounds/day)

Activity	ROG	NOx	CO	SO_2	PM-10	PM-2.5	CO_2 (e)
Maximum Daily Emissions	7.3	64.2	36.8	0.0	20.9	3.0	6,899.3
SCAQMD Thresholds	75	100	550	150	150	55	-

Source: CalEEMod.2011.1.1 output in appendix

Peak daily construction activity emissions will be below SCAQMD CEQA thresholds even without application of any possible mitigation measures. Regardless, because of the basin's non-attainment status for PM-10/PM-2.5, SCAQMD recommends use of standard fugitive dust control mitigation measures for any project in the region. Because of the role of NOx in basin smog formation, use of reasonably available NOx control measures is also recommended. These recommended dust emissions mitigation measures are detailed in the "Mitigation" section of this report.

As previously noted, construction equipment exhaust contains carcinogenic compounds within the diesel exhaust particulates. The toxicity of diesel exhaust is evaluated relative to a 24-hour per day, 365 days per year, 70-year lifetime exposure. Public exposure to heavy equipment emissions will be an extremely small fraction of the above dosage assumption. Diesel equipment is also becoming progressively "cleaner" in response to air quality rules on new off-road equipment.

LOCAL SIGNIFICANCE THRESHOLDS

The SCAQMD has developed analysis parameters to evaluate ambient air quality on a local level in addition to the more regional emissions-based thresholds of significance. These analysis elements are called Local Significance Thresholds (LSTs). LSTs were developed in response to Governing Board's Environmental Justice Enhancement Initiative 1-4 and the LST methodology was provisionally adopted in October 2003 and formally approved by SCAQMD's Mobile Source Committee in February 2005.

Use of an LST analysis for a project is optional. For recreational development, the only source of LST impact would be during construction. LSTs are only applicable to the following criteria pollutants: oxides of nitrogen (NOx), carbon monoxide (CO), and particulate matter (PM-10 and PM-2.5). LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor.

LST pollutant concentration data is currently published for 1, 2 and 5 acre sites for varying distances. This project is approximately 3 acres and therefore the data between 2 and 5 acres was interpolated accordingly. LST screening tables are available for 25, 50, 100, 200 and 500 meter source-receptor distances. The closet residence to the nearest site perimeter is as close as 25 meters to the closest project boundary feet so that a conservative 25 meter distance was utilized for this analysis.

CalEEMod output provides separate detailed emissions resulting from on-site and off-site construction activities. Onsite activities include dust from grading as well as any construction equipment exhaust emissions when the equipment operates at the site. Off-site impacts include any on-road trucking emissions resulting from hauling activities, vendor and equipment transport as well as construction crew commuting. These off-site impacts are regional in nature, and as they do not affect immediately adjacent residential uses they are excluded from the LST analysis. Only on-site construction emissions are compared to LST thresholds.

Therefore, utilizing data for a 3 acre site and a source receptor distance of 25 meters, the following thresholds are determined (pounds per day):

Los Angeles	CO	NOx	PM-10	PM-2.5
LST Threshold	1,319	126	11	6
Proposed Project On-Site Emissions				
Demolition	22	39	3	2
Grading	22	38	8	5
Construction	14	25	2	2
Paving	17	29	3	3

CalEEMod Output in Appendix (maximum emissions from on-site activities)

All emissions, even without mitigation, are below LST thresholds for construction.

OPERATIONAL IMPACTS

The greatest project-related air quality concern derives from the new vehicle trips that will be generated by recreational uses at project completion. At project build-out, the proposed site uses are proposed to generate 9 daily trips on weekdays and 284 daily trips on weekends.

Park uses will also generate small quantities of "area source emissions" derived from organic compounds from restroom cleaning products, landscape maintenance, picnic cooking, etc. The contribution of such a source minimal for a park of this size.

Operational emissions for project-related traffic were calculated using CalEEMod 2011.1.1 for an assumed project build-out year of 2012. As seen below, project development will not cause the SCAQMD's recommended threshold levels to be exceeded. Operational emissions will be at a less-than-significant level.

Project-Related Emissions Burden (weekend trips)

	Emissions (lbs/day)						
Year 2012	**ROG**	**NOx**	**CO**	**SO_2**	**PM-10**	**PM-2.5**	**CO_2**
Area Sources	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Energy Sources	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mobile Sources	1.4	3.2	13.5	0.0	2.1	0.1	1,884.8
Total	1.4	3.2	13.5	0.0	2.1	0.1	1,884.8
SCAQMD Threshold	55	55	550	150	150	55	-

The project will not cause the SCAQMD's recommended threshold levels to be exceeded. Operational emissions impacts will be at a less-than-significant level. Occasional special events may occur at the Marsh Park site as permitted by Recreation and Parks. A small daily increase in traffic could accompany such uses. However, the availability of only 43 on-site parking spaces would severely limit event size. The margin of difference between peak weekend trip emissions and SCAQMD CEQA thresholds is so large as to maintain special event air quality impacts as negligible and less-than-significant.

GREENHOUSE GAS EMISSIONS

"Greenhouse gases" (so called because of their role in trapping heat near the surface of the earth) emitted by human activity are implicated in global climate change, commonly referred to as "global warming." These greenhouse gases contribute to an increase in the temperature of the earth's atmosphere by transparency to short wavelength visible sunlight, but near opacity to outgoing terrestrial long wavelength heat radiation in some parts of the infrared spectrum. The principal greenhouse gases (GHGs) are carbon dioxide, methane, nitrous oxide, ozone, and water vapor. For purposes of planning and regulation, Section 15364.5 of the California Code of Regulations defines GHGs to include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. Fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the single largest source of GHG emissions, accounting for approximately half of GHG emissions globally. Industrial and commercial sources are the second largest contributors of GHG emissions with about one-fourth of total emissions.

California has passed several bills and the Governor has signed at least three executive orders regarding greenhouse gases. GHG statues and executive orders (EO) include AB 32, SB 1368, EO S-03-05, EO S-20-06 and EO S-01-07.

AB 32 is one of the most significant pieces of environmental legislation that California has adopted. Among other things, it is designed to maintain California's reputation as a "national and international leader on energy conservation and environmental stewardship." It will have wide-ranging effects on California businesses and lifestyles as well as far reaching effects on other states and countries. A unique aspect of AB 32, beyond its broad and wide-ranging mandatory provisions and dramatic GHG reductions are the short time frames within which it must be implemented. Major components of the AB 32 include:

- Require the monitoring and reporting of GHG emissions beginning with sources or categories of sources that contribute the most to statewide emissions.
- Requires immediate "early action" control programs on the most readily controlled GHG sources.
- Mandates that by 2020, California's GHG emissions be reduced to 1990 levels.
- Forces an overall reduction of GHG gases in California by 25-40%, from business as usual, over the next 13 years (by 2020).
- Must complement efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminants.

Statewide, the framework for developing the implementing regulations for AB 32 is under way. The most significant reductions in GHG emissions are expected to occur from increased vehicular efficiency, increased renewable energy and improved structural energy consumption.

Greenhouse Gas Emissions Significance Thresholds

In response to the requirements of SB97, the State Resources Agency developed guidelines for the treatment of GHG emissions under CEQA. These new guidelines became state laws as part of Title 14 of the California Code of Regulations in March, 2010. The CEQA Appendix G guidelines were modified to include GHG as a required analysis element. A project would have a potentially significant impact if it:

- Generates GHG emissions, directly or indirectly, that may have a significant impact on the environment, or,

- Conflicts with an applicable plan, policy or regulation adopted to reduce GHG emissions.

Section 15064.4 of the Code specifies how significance of GHG emissions is to be evaluated. The process is broken down into quantification of project-related GHG emissions, making a determination of significance, and specification of any appropriate mitigation if impacts are found to be potentially significant. At each of these steps, the new GHG guidelines afford the lead agency with substantial flexibility.

The significance of those emissions then must be evaluated; the selection of a threshold of significance must take into consideration what level of GHG emissions would be cumulatively considerable. The guidelines are clear that they do not support a zero net emissions threshold. If the lead agency does not have sufficient expertise in evaluating GHG impacts, it may rely on thresholds adopted by an agency with greater expertise. On December 5, 2008 the SCAQMD Governing Board adopted an Interim quantitative GHG Significance Threshold for industrial projects where the SCAQMD is the lead agency (e.g., stationary source permit projects, rules, plans, etc.) of 10,000 Metric Tons MT CO_2 equivalent/year. As part of the Interim GHG Significance Threshold development process for industrial projects, the SCAQMD established a working group of stakeholders that also considered thresholds for commercial or residential projects. A recommendation of a significance threshold of 3,000 MT per year of GHG emissions for non-industrial uses was developed, but never formally adopted. This 3,000 MT/year recommendation has been used as a guideline for this analysis.

Construction Activity GHG Emissions

The build-out timetable for this project is estimated by CalEEMod to be approximately 16 months. During project construction, the CalEEMod computer model predicts that the constructions activities will generate 165 Metric Tons of annual CO_2(e) emissions.

SCAQMD GHG emissions policy from construction activities is to amortize emissions over a 30-year lifetime. The amortized level from 165 metric tons CO_2(e) is 5.5 metric tons per year. GHG impacts from construction are therefore considered less-than-significant.

Project Operational GHG Emissions

The input assumptions for operational GHG emissions calculations, and the GHG conversion from consumption to annual regional CO_2(e) emissions are summarized in the CalEEMod output files found in the appendix of this report.

The total operational and annualized construction emissions are as follows:

Operational Emissions

Consumption Source	**MT CO_2(e) tons/year**
Area	0.0
Energy	0.0
Mobile Source	91.3
Solid Waste	0.1
Water	11.6
Annualized Construction	5.5
Total	**108.5**

Minor electrical consumption may occur in lighting the restrooms, storage room, or security. The CalEEMod does not provide consumption data for primarily passive park use. The GHG contribution from this source will be minimal.

Total project GHG emissions are much less than the proposed significance threshold of 3,000 MT. GHG emissions are not considered significant.

CONSTRUCTION EMISSIONS MITIGATION

Construction activities are not anticipated to cause dust emissions to exceed SCAQMD CEQA thresholds. Nevertheless, mitigation through enhanced dust control measures is recommended for use because of the non-attainment status of the air basin and the proximity of existing homes. Recommended mitigation includes:

Fugitive Dust Control

- Apply soil stabilizers or moisten inactive areas.
- Prepare a high wind dust control plan.
- Address previously disturbed areas if subsequent construction is delayed.
- Water exposed surfaces as needed to avoid visible dust leaving the construction site (typically 3 times/day).
- Cover all stock piles with tarps at the end of each day or as needed.
- Provide water spray during loading and unloading of earthen materials.
- Minimize in-out traffic from construction zone

Similarly, ozone precursor emissions (ROG and NOx) are calculated to be below SCAQMD CEQA thresholds. However, because of the non-attainment for photochemical smog, the use of reasonably available control measures for diesel exhaust is recommended. Combustion emissions control includes:

Exhaust Emissions Control

- Utilize well-tuned off-road construction equipment.
- Establish a preference for contractors using upgraded (Tier 3 or better) heavy equipment.
- Enforce 5-minute idling limits for both on-road trucks and off-road equipment.

APPENDIX

CalEEMod2011.1.1 Computer Model Output

- **Daily Construction Emissions**
- **Annual Construction Emissions**

Marsh Park

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
City Park	3	Acre

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Southern California Edison
Climate Zone	11	**Precipitation Freq (Days)**	31		

1.3 User Entered Comments

Project Characteristics -

Land Use - Buildings/Structures

Construction Phase - Default was 220 days construction

Off-road Equipment - Minimal equipment fleet

Off-road Equipment - Minimal Equipment Fleet

Off-road Equipment - Minimal equipment fleet

Off-road Equipment -

Demolition -

Grading - From project description

Vehicle Trips - from Traffic Report-default was 0

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	7.29	64.17	36.78	0.07	17.73	3.12	20.86	3.35	3.03	6.39	0.00	6,887.73	0.00	0.55	0.00	6,899.27
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	7.29	64.17	36.78	0.07	6.44	3.12	9.56	3.35	3.03	6.39	0.00	6,887.73	0.00	0.55	0.00	6,899.27
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		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	1.39	3.12	13.46	0.02	2.01	0.12	2.12	0.03	0.11	0.14		1,882.57		0.11		1,884.83
Total	**1.39**	**3.12**	**13.46**	**0.02**	**2.01**	**0.12**	**2.12**	**0.03**	**0.11**	**0.14**		**1,882.57**		**0.11**	**0.00**	**1,884.83**

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		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	1.39	3.12	13.46	0.02	2.01	0.12	2.12	0.03	0.11	0.14		1,882.57		0.11		1,884.83
Total	**1.39**	**3.12**	**13.46**	**0.02**	**2.01**	**0.12**	**2.12**	**0.03**	**0.11**	**0.14**		**1,882.57**		**0.11**	**0.00**	**1,884.83**

3.0 Construction Detail

3.1 Mitigation Measures Construction

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					0.85	0.00	0.85	0.00	0.00	0.00						0.00
Off-Road	4.87	39.04	22.27	0.03		2.07	2.07		2.07	2.07		3,603.40		0.44		3,612.57
Total	**4.87**	**39.04**	**22.27**	**0.03**	**0.85**	**2.07**	**2.92**	**0.00**	**2.07**	**2.07**		**3,603.40**		**0.44**		**3,612.57**

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	0.25	2.61	1.44	0.00	1.85	0.12	1.96	0.00	0.11	0.11		326.36		0.01		326.62
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	0.05	0.05	0.61	0.00	0.10	0.00	0.11	0.00	0.00	0.00		89.42		0.01		89.54
Total	**0.30**	**2.66**	**2.05**	**0.00**	**1.95**	**0.12**	**2.07**	**0.00**	**0.11**	**0.11**		**415.78**		**0.02**		**416.16**

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	lb/day										lb/day					
Fugitive Dust					0.85	0.00	0.85	0.00	0.00	0.00						0.00
Off-Road	4.87	39.04	22.27	0.03		2.07	2.07		2.07	2.07	0.00	3,603.40		0.44		3,612.57
Total	**4.87**	**39.04**	**22.27**	**0.03**	**0.85**	**2.07**	**2.92**	**0.00**	**2.07**	**2.07**	**0.00**	**3,603.40**		**0.44**		**3,612.57**

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	0.25	2.61	1.44	0.00	0.01	0.12	0.13	0.00	0.11	0.11		326.36		0.01		326.62
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	0.05	0.05	0.61	0.00	0.00	0.00	0.01	0.00	0.00	0.00		89.42		0.01		89.54
Total	**0.30**	**2.66**	**2.05**	**0.00**	**0.01**	**0.12**	**0.14**	**0.00**	**0.11**	**0.11**		**415.78**		**0.02**		**416.16**

3.3 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					6.32	0.00	6.32	3.32	0.00	3.32						0.00
Off-Road	4.65	37.72	21.48	0.03		1.96	1.96		1.96	1.96		3,471.07		0.42		3,479.82
Total	**4.65**	**37.72**	**21.48**	**0.03**	**6.32**	**1.96**	**8.28**	**3.32**	**1.96**	**5.28**		**3,471.07**		**0.42**		**3,479.82**

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	2.58	26.38	14.54	0.03	11.28	1.16	12.44	0.04	1.07	1.11		3,304.88		0.13		3,307.51
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	0.07	0.07	0.77	0.00	0.13	0.00	0.13	0.00	0.00	0.01		111.78		0.01		111.93
Total	**2.65**	**26.45**	**15.31**	**0.03**	**11.41**	**1.16**	**12.57**	**0.04**	**1.07**	**1.12**		**3,416.66**		**0.14**		**3,419.44**

3.3 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	lb/day										lb/day					
Fugitive Dust					6.32	0.00	6.32	3.32	0.00	3.32						0.00
Off-Road	4.65	37.72	21.48	0.03		1.96	1.96		1.96	1.96	0.00	3,471.07		0.42		3,479.82
Total	**4.65**	**37.72**	**21.48**	**0.03**	**6.32**	**1.96**	**8.28**	**3.32**	**1.96**	**5.28**	**0.00**	**3,471.07**		**0.42**		**3,479.82**

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	2.58	26.38	14.54	0.03	0.11	1.16	1.28	0.04	1.07	1.11		3,304.88		0.13		3,307.51
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	0.07	0.07	0.77	0.00	0.00	0.00	0.01	0.00	0.00	0.01		111.78		0.01		111.93
Total	**2.65**	**26.45**	**15.31**	**0.03**	**0.11**	**1.16**	**1.29**	**0.04**	**1.07**	**1.12**		**3,416.66**		**0.14**		**3,419.44**

3.4 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	3.87	24.74	13.75	0.03		1.64	1.64		1.64	1.64		2,422.50		0.35		2,429.78
Total	**3.87**	**24.74**	**13.75**	**0.03**		**1.64**	**1.64**		**1.64**	**1.64**		**2,422.50**		**0.35**		**2,429.78**

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	0.00	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	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

3.4 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	lb/day										lb/day					
Off-Road	3.87	24.74	13.75	0.03		1.64	1.64		1.64	1.64	0.00	2,422.50		0.35		2,429.78
Total	**3.87**	**24.74**	**13.75**	**0.03**		**1.64**	**1.64**		**1.64**	**1.64**	**0.00**	**2,422.50**		**0.35**		**2,429.78**

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	0.00	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	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

3.5 Paving - 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	4.80	29.25	17.24	0.03		2.57	2.57		2.57	2.57		2,400.73		0.43		2,409.76
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**4.80**	**29.25**	**17.24**	**0.03**		**2.57**	**2.57**		**2.57**	**2.57**		**2,400.73**		**0.43**		**2,409.76**

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	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	0.13	1.53	0.00	0.26	0.01	0.27	0.00	0.01	0.01		223.56		0.01		223.86
Total	**0.13**	**0.13**	**1.53**	**0.00**	**0.26**	**0.01**	**0.27**	**0.00**	**0.01**	**0.01**		**223.56**		**0.01**		**223.86**

3.5 Paving - 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	4.80	29.25	17.24	0.03		2.57	2.57		2.57	2.57	0.00	2,400.73		0.43		2,409.76
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**4.80**	**29.25**	**17.24**	**0.03**		**2.57**	**2.57**		**2.57**	**2.57**	**0.00**	**2,400.73**		**0.43**		**2,409.76**

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	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	0.13	1.53	0.00	0.01	0.01	0.02	0.00	0.01	0.01		223.56		0.01		223.86
Total	**0.13**	**0.13**	**1.53**	**0.00**	**0.01**	**0.01**	**0.02**	**0.00**	**0.01**	**0.01**		**223.56**		**0.01**		**223.86**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.39	3.12	13.46	0.02	2.01	0.12	2.12	0.03	0.11	0.14		1,882.57		0.11		1,884.83
Unmitigated	1.39	3.12	13.46	0.02	2.01	0.12	2.12	0.03	0.11	0.14		1,882.57		0.11		1,884.83
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
City Park	9.00	283.80	283.80	186,830	186,830
Total	9.00	283.80	283.80	186,830	186,830

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
City Park	9.50	7.30	7.30	33.00	48.00	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	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
NaturalGas Unmitigated	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**

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					
City Park	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
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**

5.2 Energy by Land Use - NaturalGas

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					
City Park	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
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**

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		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	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
Landscaping	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

	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
Landscaping	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

Marsh Park

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
City Park	3	Acre

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Southern California Edison
Climate Zone	11	**Precipitation Freq (Days)**	31		

1.3 User Entered Comments

Project Characteristics -

Land Use - Buildings/Structures

Construction Phase - Default was 220 days construction

Off-road Equipment - Minimal equipment fleet

Off-road Equipment - Minimal Equipment Fleet

Off-road Equipment - Minimal equipment fleet

Off-road Equipment -

Demolition -

Grading - From project description

Vehicle Trips - from Traffic Report-default was 0

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	0.26	1.84	1.06	0.00	0.13	0.11	0.24	0.02	0.11	0.13	0.00	164.75	164.75	0.02	0.00	165.18
Total	**0.26**	**1.84**	**1.06**	**0.00**	**0.13**	**0.11**	**0.24**	**0.02**	**0.11**	**0.13**	**0.00**	**164.75**	**164.75**	**0.02**	**0.00**	**165.18**

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	0.26	1.84	1.06	0.00	0.05	0.11	0.16	0.02	0.11	0.13	0.00	164.75	164.75	0.02	0.00	165.18
Total	**0.26**	**1.84**	**1.06**	**0.00**	**0.05**	**0.11**	**0.16**	**0.02**	**0.11**	**0.13**	**0.00**	**164.75**	**164.75**	**0.02**	**0.00**	**165.18**

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	0.00	0.00	0.00
Energy	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
Mobile	0.08	0.18	0.76	0.00	0.10	0.01	0.11	0.00	0.01	0.01	0.00	91.20	91.20	0.01	0.00	91.31
Waste						0.00	0.00		0.00	0.00	0.05	0.00	0.05	0.00	0.00	0.12
Water						0.00	0.00		0.00	0.00	0.00	11.55	11.55	0.00	0.00	11.62
Total	**0.08**	**0.18**	**0.76**	**0.00**	**0.10**	**0.01**	**0.11**	**0.00**	**0.01**	**0.01**	**0.05**	**102.75**	**102.80**	**0.01**	**0.00**	**103.05**

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	0.00	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
Energy	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
Mobile	0.08	0.18	0.76	0.00	0.10	0.01	0.11	0.00	0.01	0.01	0.00	91.20	91.20	0.01	0.00	91.31
Waste						0.00	0.00		0.00	0.00	0.05	0.00	0.05	0.00	0.00	0.12
Water						0.00	0.00		0.00	0.00	0.00	11.55	11.55	0.00	0.00	11.62
Total	**0.08**	**0.18**	**0.76**	**0.00**	**0.10**	**0.01**	**0.11**	**0.00**	**0.01**	**0.01**	**0.05**	**102.75**	**102.80**	**0.01**	**0.00**	**103.05**

3.0 Construction Detail

3.1 Mitigation Measures Construction

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					0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.39	0.22	0.00		0.02	0.02		0.02	0.02	0.00	32.68	32.68	0.00	0.00	32.76
Total	**0.05**	**0.39**	**0.22**	**0.00**	**0.01**	**0.02**	**0.03**	**0.00**	**0.02**	**0.02**	**0.00**	**32.68**	**32.68**	**0.00**	**0.00**	**32.76**

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	0.03	0.01	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	2.96	2.96	0.00	0.00	2.96
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	0.76	0.76	0.00	0.00	0.77
Total	**0.00**	**0.03**	**0.02**	**0.00**	**0.02**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**3.72**	**3.72**	**0.00**	**0.00**	**3.73**

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					0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.39	0.22	0.00		0.02	0.02		0.02	0.02	0.00	32.68	32.68	0.00	0.00	32.76
Total	**0.05**	**0.39**	**0.22**	**0.00**	**0.01**	**0.02**	**0.03**	**0.00**	**0.02**	**0.02**	**0.00**	**32.68**	**32.68**	**0.00**	**0.00**	**32.76**

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	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.96	2.96	0.00	0.00	2.96
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	0.76	0.76	0.00	0.00	0.77
Total	**0.00**	**0.03**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.72**	**3.72**	**0.00**	**0.00**	**3.73**

3.3 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					0.04	0.00	0.04	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.23	0.13	0.00		0.01	0.01		0.01	0.01	0.00	18.89	18.89	0.00	0.00	18.94
Total	**0.03**	**0.23**	**0.13**	**0.00**	**0.04**	**0.01**	**0.05**	**0.02**	**0.01**	**0.03**	**0.00**	**18.89**	**18.89**	**0.00**	**0.00**	**18.94**

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	0.02	0.16	0.09	0.00	0.06	0.01	0.07	0.00	0.01	0.01	0.00	17.95	17.95	0.00	0.00	17.97
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	0.57	0.57	0.00	0.00	0.57
Total	**0.02**	**0.16**	**0.09**	**0.00**	**0.06**	**0.01**	**0.07**	**0.00**	**0.01**	**0.01**	**0.00**	**18.52**	**18.52**	**0.00**	**0.00**	**18.54**

3.3 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					0.04	0.00	0.04	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.23	0.13	0.00		0.01	0.01		0.01	0.01	0.00	18.89	18.89	0.00	0.00	18.94
Total	**0.03**	**0.23**	**0.13**	**0.00**	**0.04**	**0.01**	**0.05**	**0.02**	**0.01**	**0.03**	**0.00**	**18.89**	**18.89**	**0.00**	**0.00**	**18.94**

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	0.02	0.16	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	0.00	17.95	17.95	0.00	0.00	17.97
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	0.57	0.57	0.00	0.00	0.57
Total	**0.02**	**0.16**	**0.09**	**0.00**	**0.00**	**0.01**	**0.01**	**0.00**	**0.01**	**0.01**	**0.00**	**18.52**	**18.52**	**0.00**	**0.00**	**18.54**

3.4 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	0.14	0.89	0.49	0.00		0.06	0.06		0.06	0.06	0.00	79.09	79.09	0.01	0.00	79.33
Total	**0.14**	**0.89**	**0.49**	**0.00**		**0.06**	**0.06**		**0.06**	**0.06**	**0.00**	**79.09**	**79.09**	**0.01**	**0.00**	**79.33**

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	0.00	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**	**0.00**	**0.00**	**0.00**	**0.00**

3.4 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	0.14	0.89	0.49	0.00		0.06	0.06		0.06	0.06	0.00	79.09	79.09	0.01	0.00	79.33
Total	**0.14**	**0.89**	**0.49**	**0.00**		**0.06**	**0.06**		**0.06**	**0.06**	**0.00**	**79.09**	**79.09**	**0.01**	**0.00**	**79.33**

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	0.00	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**	**0.00**	**0.00**	**0.00**	**0.00**

3.5 Paving - 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	0.15	0.09	0.00		0.01	0.01		0.01	0.01	0.00	10.89	10.89	0.00	0.00	10.93
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.02**	**0.15**	**0.09**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**10.89**	**10.89**	**0.00**	**0.00**	**10.93**

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	0.96	0.96	0.00	0.00	0.96
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.96**	**0.96**	**0.00**	**0.00**	**0.96**

3.5 Paving - 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	0.15	0.09	0.00		0.01	0.01		0.01	0.01	0.00	10.89	10.89	0.00	0.00	10.93
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.02**	**0.15**	**0.09**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**10.89**	**10.89**	**0.00**	**0.00**	**10.93**

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	0.96	0.96	0.00	0.00	0.96
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.96**	**0.96**	**0.00**	**0.00**	**0.96**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.08	0.18	0.76	0.00	0.10	0.01	0.11	0.00	0.01	0.01	0.00	91.20	91.20	0.01	0.00	91.31
Unmitigated	0.08	0.18	0.76	0.00	0.10	0.01	0.11	0.00	0.01	0.01	0.00	91.20	91.20	0.01	0.00	91.31
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
City Park	9.00	283.80	283.80	186,830	186,830
Total	9.00	283.80	283.80	186,830	186,830

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
City Park	9.50	7.30	7.30	33.00	48.00	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	0.00	0.00	0.00	0.00	0.00
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NaturalGas Mitigated	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
NaturalGas Unmitigated	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	**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					
City Park	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
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**	**0.00**	**0.00**

5.2 Energy by Land Use - NaturalGas

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					
City Park	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
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**	**0.00**	**0.00**

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			
City Park	0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
City Park	0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

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	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	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
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	**0.00**	**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**

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
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	**0.00**	**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**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					11.55	0.00	0.00	11.62
Unmitigated					11.55	0.00	0.00	11.62
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			
City Park	0 / 3.57444					11.55	0.00	0.00	11.62
Total						**11.55**	**0.00**	**0.00**	**11.62**

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			
City Park	0 / 3.57444					11.55	0.00	0.00	11.62
Total						**11.55**	**0.00**	**0.00**	**11.62**

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					0.05	0.00	0.00	0.12
Unmitigated					0.05	0.00	0.00	0.12
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			
City Park	0.26					0.05	0.00	0.00	0.12
Total						**0.05**	**0.00**	**0.00**	**0.12**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
City Park	0.26					0.05	0.00	0.00	0.12
Total						**0.05**	**0.00**	**0.00**	**0.12**

9.0 Vegetation

APPENDIX B

NOISE ANALYSIS

NOISE IMPACT ANALYSIS

MARSH PARK

CITY OF LOS ANGELES, CALIFORNIA

Prepared for:

Prepared for:
Mountains Recreation & Conservation Authority (MCRA)
L. A. River Center & Gardens
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Los Angeles, CA 90065

Hans D. Giroux
Senior Analyst
Giroux & Associates

Date:

May 13, 2012

Project No.: P11-048 N

NOISE SETTING

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. Noise is defined as unwanted sound. Acoustic energy is characterized by various parameters that describe the rate of oscillation of sound waves, the distance between successive troughs or crests, the speed of propagation, and the pressure level or energy content of a given sound. In particular, the sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level.

The unit of sound pressure ratioed to the lowest level detectable by a young person with good auditory acuity is called a decibel (dB). Because sound or noise can vary in intensity by over one million times within the range of human hearing, decibels are on a logarithmic scale in order to keep sound pressure level values at a convenient and manageable number. Since the human ear is not equally sensitive to all sound frequencies within the entire spectrum, noise levels at maximum human sensitivity are factored more heavily into sound descriptions in a process called "A-weighting," written as “dB(A).” Any noise levels expressed in the following discussion as "dB" should be understood to be dB(A).

Leq is a time-averaged sound level; a single-number value that expresses the time-varying sound level for the specified period as though it were a constant sound level with the same total sound energy as the time-varying level. Its unit is the decibel (dB). The most common averaging period for Leq is hourly.

Because community receptors are more sensitive to unwanted noise intrusion during more sensitive evening and nighttime hours, state law requires that an artificial dBA increment be added to quiet time noise levels. The 24-hour noise descriptor with a specified evening and nocturnal penalty is called the Community Noise Equivalent Level (CNEL). CNEL’s are a weighted average of hourly Leq’s.

CNELs are calculated by averaging observed noise levels from 7 a.m. to 7 p.m., noise levels from 7-10 p.m. with the addition of plus 5 dB, and levels from 10 p.m. to 7 a.m. plus 10 dB to account for heightened nocturnal noise sensitivity. The CNEL scale is specified by the City of Los Angeles for community noise analysis.

A noise level of 65 dB CNEL is the threshold where ambient noise begins to intrude into the ability to carry on a conversation. An exterior noise exposure of 65 dB CNEL is therefore the most common noise/land use compatibility guideline for new residential dwellings in California. Because commercial or industrial uses are not occupied on a 24-hour basis, the exterior noise exposure standard for less sensitive land uses is somewhat less stringent.

NOISE COMPATIBILITY STANDARDS

Table 1 shows the noise/land use compatibility guideline for City of Los Angeles land uses as contained in the Noise Element of the City of Los Angeles General Plan. Exposures up to 65 dB CNEL for playground and park uses are considered normally acceptable. Levels of up to 75 dB CNEL are considered conditionally acceptable if all measures to reduce such exposure have been taken. Noise levels above 75 dB CNEL are considered normally unacceptable except in unusual circumstances.

NOISE ORDINANCE

The proposed project will be owned and operated by the Mountains Recreation and Conservation Authority (MRCA). Section 3.15 of the MRCA's *Ordinance Establishing Park Rules and Regulations and Prescribing The Punishment For Violation Thereof* addresses disruptive conduct, including noise. It states: "No person shall willfully disturb another person by loud and unreasonable noise, or any other activity which maliciously and willfully disturbs the peace of another person. Violation of this section is punishable pursuant to § 5.0(a) and §6.2.1(b)(2)." Section 5.0(a) of the Ordinance provides that: "(a) Unless otherwise specified, any violation of any provision of this Ordinance shall be a misdemeanor punishable by a maximum fine of one thousand dollars ($1,000), or imprisonment in the county jail for six months, or both such fine and imprisonment, pursuant to Public Resources Code § 5786.17." Section 6.2.1(b)(2) of the MRCA's ordinance provides additional details on misdemeanor offenses under the Ordinance. MRCA park rangers are empowered to issue citations for violations of the Ordinance.

The City's noise standards for non-transportation sources are articulated in the Noise Ordinance. The Ordinance regulates noise from one land use crossing the property line of an adjacent property line. Chapter IX of the Los Angeles Municipal Code restricts the level of noise that one type of land use or activity may broadcast across an adjacent land use. Noise ordinance standards are stated with respect to ambient levels found without the contribution of an identified noise source. If ambient levels are low, Section 111.03 of the Los Angeles Municipal Code established presumed ambient noise levels as a function of zoning and times of day. Table 2 shows the presumed ambient noise levels to be used as an evaluation baseline.

During the daytime, some deviation from these thresholds is allowed for short-term (less than 15 minute) noise generation. The nocturnal noise standard has no provisions for any deviation for purposes of sleep protection. The noise ordinance numerical standards apply to "stationary" sources of noise generation (mechanical equipment such as air conditioning, refrigeration, heating, pumping, etc.). A number of special noise generation activities have specific prohibitions as to time, manner or place. If such activities are not specifically prohibited by ordinance, the noise constraint for general stationary sources is that they may not increase the ambient level by more than 5 dB above ambient (measured or presumed minimum) levels shown in Table 2.

Recreational activities or public assembly in a park may generate nuisance noise associated with park user exuberant enjoyment. Two sections of the municipal code address this issue. Sectionj 41.57 of the municipal code prohibits the creation of "loud or raucous noise" in or upon any

public park or other public place. Loud and raucous noise is particularly aimed at amplified noise that unreasonably annoys surrounding persons. The term unreasonably is to be evaluated in terms of "hour, place, nature or circumstance of the emission or transmission of any such loud or raucous noise."

Section 112.01 of the code provides some numerical guidance on noise levels that could be considered excessive from amplified voice or music. Section 112.01(b) considers audibility of radios, p.a. systems, etc. perceptible beyond 150 feet from the source within any adjacent residential occupancy to be a violation of the noise ordinance unless the source is operating under a Special Permit. Section 112.01(c) similarly considers a +5 dB increase above ambient noise levels at any off-site residential property line to also be a potential violation of the ordinance.

Table 1

City of Los Angeles Land Use Compatibility

Land Use Category	Day-Night Average Exterior Sound Level (CNEL dB)						
	50	55	60	65	70	75	80
Residential Single Family, Duplex, Mobile Home	A	C	C	C	N	U	U
Residential Multi-Family	A	A	C	C	N	U	U
Transient Lodging, Motel, Hotel	A	A	C	C	N	U	U
School, Library, Church, Hospital, Nursing Home	A	A	C	C	N	N	U
Auditorium, Concert Hall, Ampitheater	C	C	C	C/N	U	U	U
Sports Arena, Outdoor Spectator Sports	C	C	C	C	C/U	U	U
Playground, Neighborhood Park	A	A	A	A/N	N	N/U	U
Golf Course, Riding Stable, Water Recreation, Cemetery	A	A	A	A	N	A/N	U
Office Building, Business, Commercial, Professional	A	A	A	A/C	C	C/N	N
Agriculture, Industrial, Manufacturing, Utilities	A	A	A	A	A/C	C/N	N

A = Normally acceptable. Specified land use is satisfactory, based upon assumption buildings involved are conventional construction, without any special noise insulation.

C = Conditionally acceptable. New construction or development only after a detailed analysis of noise mitigation is made and needed noise insulation features are included in project design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning normally will suffice.

N = Normally unacceptable. New construction or development generally should be discouraged. A detailed analysis of noise reduction requirements must be made and noise insulation features included in the design of a project.

U = Clearly unacceptable. New construction or development generally should not be undertaken.

Table 2

City of Los Angeles Noise Ordinance

Daytime levels are to be used from 7:00 a.m. to 10:00 p.m. and nighttime levels from 10:00 p.m. to 7:00 a.m.)

	PRESUMED AMBIENT NOISE LEVEL (dB(A))	
ZONE	**DAY**	**NIGHT**
A1, A2, RA, RE, RS, RD, RW1, RW2, R1, R2, R3, R4, and R5	50	40
P, PB, CR, C1, C1.5, C2, C4, C5, and CM	60	55
M1, MR1, and MR2	60	55
M2 and M3	65	65

At the boundary line between two zones, the presumed ambient noise level of the quieter zone shall be used.

If the noise occurs more than 5 but less than 15 minutes in any period of 60 consecutive minutes between the hours of 7:00 a.m. and 10:00 p.m. of any day -5 dB.

If the noise occurs five minutes or less in any period of 60 consecutive minutes, between the hours of 7:00 a.m. and 10:00 p.m. of any day -5 dB additional.

BASELINE NOISE LEVELS

Short term on-site noise measurements were made in order to document existing baseline levels in the project area. These help to serve as a basis for projecting future noise exposure from the project upon the surrounding community. Noise monitoring was conducted on Tuesday, December 20, 2011, from 1:30 p.m. – 2:30 p.m., at three area locations. Measurement locations are shown in **Figure 1** and summarized below.

Measured Noise Levels (dBA)

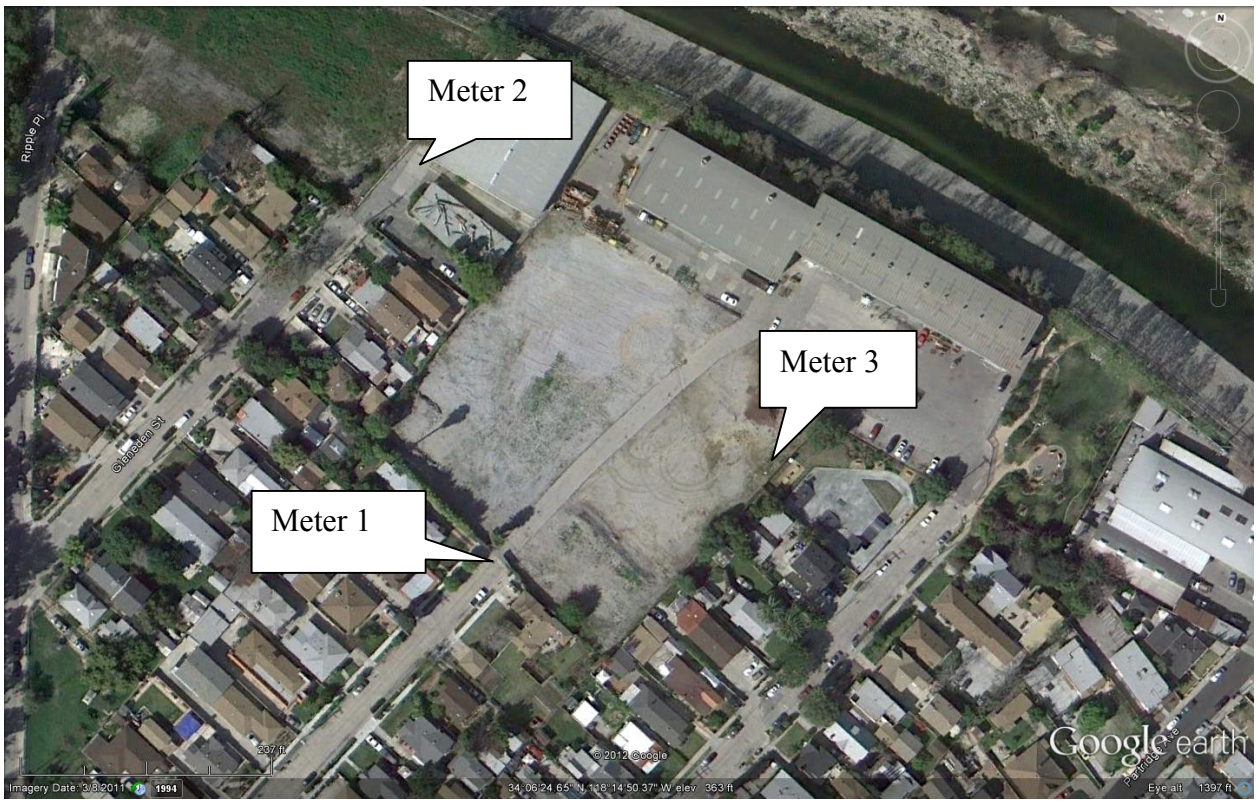
Site No.	Leq	Lmax	Lmin	L10	L33	L50	L90
1	52.0	63.0	48.0	53.0	51.5	51.0	49.5
2	57.1	63.5	53.5	58.0	57.0	56.0	55.5
3	65.1	82.0	51.0	68.0	64.0	62.0	56.0

Meters 1 and 2 are considered representative of homes adjacent to the park away from the skate park. Meter 3 is representative of homes between the skate park and the proposed Marsh Park. The skate park was being used by six skaters and the ramps are made of metal which clangs audibly when is use. Observed noise levels near the skate park were therefore much higher than other areas surrounding the project area.

Monitoring experience shows that 24-hour weighted CNEL's can be reasonably well estimated from mid-afternoon noise readings. CNEL's are approximately equal to mid-afternoon Leq plus 2 dB (Caltrans Technical Noise Supplement, 2009). In locations not immediately adjacent to the skate park, monitoring shows Leq's in the 52-57 dB range. This would equate to possible CNELs in the 54-59 dB level. Such CNELs are estimated to be within the Los Angeles park use noise compatibility guidelines. There are no ambient noise constraints to project development as proposed.

Although Leq levels are higher near the skate park, a block wall will separate Marsh Park from nearby residences. Also, usable areas of Marsh Park are set back from the skate park and attenuation from distance spreading losses will reduce noise levels.

Figure 1 Noise Meter Locations



Meter 1: Northern terminus - Rosanna St, future park driveway entrance.

Meter 2: Northern terminus - Gleneden St, west side of proposed park.

Meter 3: West side of existing Skate Park-east side of proposed park.

NOISE SIGNIFICANCE CRITERIA

Noise impacts are considered significant if they result in:

a. 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.

b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

"Substantial" for noise analyses is generally a +3 dB increase because humans are not able to readily discern noise level differences of less than 3 dB under ambient conditions. The +3 dB threshold is typically applied to traffic (roadway, airport, rail, etc.) sources because such sources are exempt from local ordinance control. However, a +3 dB increase requires a doubling of traffic volumes because of the logarithmic nature of the decibel scale. Few projects individually cause a doubling of traffic volumes near an already noisy source.

Possible violations of noise ordinance standards would also be considered a potentially significant impact under CEQA. Compliance with ordinance standards is presumptive evidence of a less-than-significant impact. However, there could still be a noise nuisance created by unusual time, place or nature of the event even if there is no violation of the ordinance. Reliance on the ordinance standards may thus require project design features that further minimize nuisance impact potential.

SOURCES OF IMPACT

There are several characteristic noise sources are typically identified with recreational development such as proposed at the project site. Construction activities will create short-term noise increases near the project sites. Upon completion, project-related traffic may cause a small incremental increase in area-wide noise levels throughout the project area. Outdoor project activities will entail recreational activities and associated noise. CEQA guidelines require evaluation of any change in the existing environment.

CONSTRUCTION NOISE IMPACTS

Construction noise is typically governed by ordinance limits on allowable times of equipment operations. The City of Los Angeles limits construction activities to the hours of 7:00 a.m. and 9:00 p.m. on weekdays and 8:00 a.m. to 6:00 p.m. on any Saturday. Construction is not permitted on any national holiday or on any Sunday.

In addition, Section 112.05 of the Los Angeles Building Code specifies the maximum noise level of powered equipment or powered hand tools. Use of any powered equipment or powered hand tool that produces a maximum noise level exceeding 75 dBA at a distance of 50 feet from construction and industrial machinery is prohibited. However, the above noise limitation does not apply where compliance is technically infeasible (Section 112.05, Los Angeles Municipal Code). "Technically infeasible" means that the above noise limitation cannot be complied with despite the use of mufflers, shields, sound barriers and/or any other noise reduction device or techniques during the operation of equipment. An inability to reduce construction equipment noise exposure to 75 dBA or less at any off-site, noise sensitive use would be considered a significant, but temporary, noise impact.

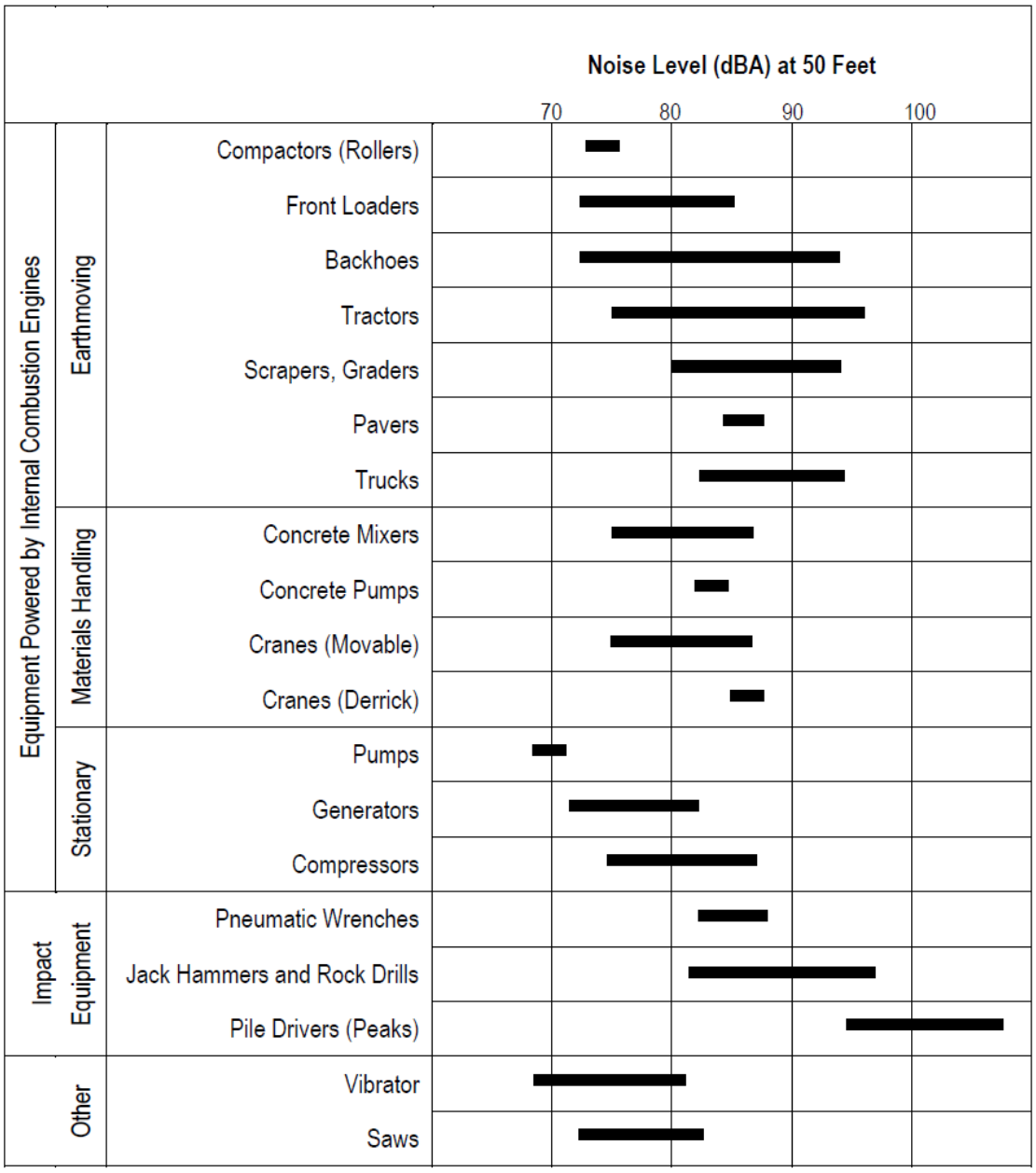
Construction noise impacts vary markedly because the noise strength of construction equipment ranges widely as a function of the equipment used which changes during the course of the project. Construction noise tends to occur in discrete phases dominated initially by demolition of the existing on-site structures and then for earth-moving sources and later for finish construction. Physical facilities construction for this project is very minimal. Only grading is anticipated to cause a potential noise disturbance.

As shown in Figure 2, heavy equipment noise can exceed 90 dB(A) and averages about 85 dB(A) at 50 feet from the source when the equipment is operating at typical loads. Most heavy equipment operates with varying load cycles over any extended period of time. The upper end of the noise generation range shown in Figure 2 represents short-term effects, while the longer term averages are most representative of the lower end of the indicated noise curves.

Construction noise exposure can be further worsened when several pieces of equipment operate in close proximity. Because of the logarithmic nature of decibel addition, two equally loud pieces of equipment will be +3 dB louder than either one individually. Three simultaneous sources are +5 dB louder than any single source. Thus, while average operational equipment noise levels are perhaps 5 dB less than at peak power, simultaneous equipment operation can still yield an apparent noise strength equal to any individual source at peak noise output. Whereas the average heavy equipment reference noise level is 85 dB(A), short-term levels from either peak power or from several pieces operating in close proximity can be as high as 90 dB(A).

Figure 2

Typical Construction Equipment Noise Generation Levels



Source: EPA PB 206717, Environmental Protection Agency, December 31, 1971, "Noise from Construction Equipment and Operations."

Point sources of noise emissions are atmospherically attenuated by a factor of 6 dB per doubling of distance. The loudest construction activities would require almost 280 feet of distance between the source and a nearby receiver to reduce the peak 90 dB source strength to the generally acceptable 75 dB exterior exposure level specified in Section 112.05 of the City Building Code.

The project site is surrounded by residential uses on three sides of the park perimeter. Thus there are noise sensitive land uses which are within 280 feet of heavy construction equipment operations which may be potentially impacted. A construction noise mitigation plan must be developed and implemented. The use of temporary sound curtains or smaller equipment can typically mitigate construction noise though unlikely to less-than-significant levels. A comprehensive list of these mitigation measures is provided at the end of this report in the "Mitigation" section.

Another potential noise impact resulting from construction of the proposed project is ground-borne vibration. Perceptible ground-borne vibration is typically associated with blasting operations and the use of pile drivers, neither of which would be used during construction of the proposed project. The vibration level of a small dozer that may be used is a peak particle velocity (PPV) of 0.003 inches/second (IPS) (FTA Handbook, 2006) at 25 feet. The damage threshold for extremely sensitive structures is 0.12 IPS. The vibration level from a small dozer is 40 times less than the most stringent damage threshold.

Maximum vibration would result during brief uses of a jackhammer to break up demolished structure foundations. The stated PPV for jackhammers is 0.035 IPS at 25 feet. This is still three times lower than any threshold of even possible minor damage. As such, no excessive ground-borne vibration would be created by the proposed project, and; therefore, impacts due to project-generated ground-borne vibrations are less than significant.

ON-SITE NOISE GENERATION

Vehicular Impacts

Park access is controlled by gates, and will be open from sun-up to sun-down. The park includes a 43 space parking lot. In the unlikely event that 43 vehicles all arrived or departed in a single hour the resultant noise level would be 46 dB Leq at 50 feet from source. This is less than the presumed daytime ambient level for residential use of 50 dB as well as lower than the ambient noise level and would not be detectable. The proposed block wall will separate the parking lot from adjacent residences and will provide additional vehicular noise attenuation. Almost all residences surrounding the site are single story units such that the block will would cause a break in the line-of-sight to the residences.

The picnic shelter is sized to be able to accommodate seating for 200 persons. However, groups reserving the picnic shelter for special events will be responsible to obtain a permit. The MRCA will have the ability to impose restrictions on the number of attendees and vehicles as part of special event permitting and events would be evaluated on an individual basis.

The picnic shelter is in the northwest portion of the site. Only the existing residences at the end of Gleneden Street and the future residences (Ripple Place) at the northwestern terminus of Gleneden Street will be impacted. Observed existing ambient noise levels in the vicinity of the picnic shelter were 57 dB Leq.

From a review of the acoustical literature, very little quantitative information is available on noise levels from park users or from crowds in public gatherings. In addition, the noise levels produced are highly dependent on the nature of the activity that draws the crowd (e.g., speech, music, and so on). Human voices can generate a wide range of sound levels, and different people will vocalize differently under the same circumstances. Notwithstanding this variability, logical assumptions can yield estimates from which conclusions may be reached. A single person cheering at a moderately enthusiastic level can produce noise levels ranging anywhere from 80 dB to 100 dB at 3 feet in front of the person. A loud voice level of 90 dB at 3 feet would be reduced to 50 dB at a 300-foot distance through geometrical spreading of sound waves. The presumed ambient daytime residential level is 50 dB. The short-term standard is 60 dB. Loud human voice noise generation could be in excess of the ordinance standard to a distance of 100 feet for short periods the source and out to 300 feet for long-term noise generation.

Portable music and loud voices would typically comprise the bulk of public assembly noise that might be considered a nuisance at the nearest neighbors. Because such parties mainly occur during the day, daytime noise standards apply. Noise levels for social functions likely to occasionally occur at the park that involve amplified music can be as loud as 75 dB at a measured reference distance of 20 feet from the music or conversation source. Under line-of-sight conditions, spreading losses would reduce this noise level to 55 dB within 200 feet of the activity. Section 112.01(c) of the municipal code restricts noise levels to +5 dB above ambient. If the presumed ambient level at homes near the project site is 50 dB, noise levels exceeding 55 dB could violate the ordinance. Such levels would also be audible beyond the 150 foot limit specified in Section 112.01(b). Special functions (parties, fund raisers, community fairs, etc.) could cause a localized violation of the City's noise ordinance if they involved amplified music. Groups that plan such functions must therefore obtain a special events permit that temporarily suspends the ordinance limits. The permit musy also establish strict limits on time, duration, location and other site-specific conditions that minimize potential noise nuisance.

A wrap around continuation of the proposed block wall around the entire north western project perimeter would assist in noise mitigation (currently a decorative fence is proposed to the west of the picnic shelter) and would provide approximately 6 dB of noise attenuation. The bulk of the noise impacts would be incurred by the immediate adjacent residences. Farther from the source, these residences would block noise for farther tiers of development.

SUMMARY

Construction activities from project development should not affect the nearest off-site residential uses. Recommended mitigation measures to ensure compliance with City of Los Angeles Noise Standards would protect the adjacent residential properties and include the following:

- Construction activities are limited to the hours of 7:00 a.m. and 9:00 p.m. on weekdays and 8:00 a.m. to 6:00 p.m. on any Saturday. Construction is not permitted on any national holiday or on any Sunday.
- All construction equipment shall be properly tuned and muffled according to manufacturer's specifications.
- Any powered equipment or powered hand tool that produces a maximum noise level exceeding 75 dBA at a distance of 50 feet from construction and industrial machinery is prohibited unless no means exist to reduce such noise below 75 dBA.
- Noisy construction activities whose specific location on the project site may be flexible (e.g., operation of compressors and generators, cement mixing, general truck idling) shall be constructed as far as possible from the nearest noise- and vibration- sensitive land uses.
- The use of those pieces of construction equipment or construction methods with the greatest peak noise generation potential shall be minimized. Examples include the use of drills, jackhammers, and pile drivers.
- Construction and demolition activities shall be scheduled so as to avoid operating several pieces of equipment simultaneously, which causes high levels of noise.
- The Proposed Project shall comply with the City of Los Angeles Noise Ordinance No. 144,331 and 161,574, and any subsequent ordinances, which prohibit the emission or creation of noise beyond certain levels at adjacent uses unless technically infeasible.
- All construction truck traffic shall be restricted to truck routes approved by the City of Los Angeles Department of Building and Safety, which shall avoid residential areas and other sensitive receptors to the extent feasible.
- The project contractor shall use power construction equipment with state-of-the art noise shielding and muffling devices.
- The Proposed Project shall comply with the City of Los Angeles Building Regulations Ordinance No. 178048, which requires a construction site notice to be provided that includes the following information: job site address, permit number, name and phone number of the contractor and owner or owner's agent, hours of construction allowed by code, or any discretionary approval for the project site, and City telephone numbers where violations can be reported. The notice shall be posted and maintained at the construction site prior to the start of construction and displayed in a location that is readily visible to the public and approved by the City of Los Angeles Department of Building and Safety.

The project noise impact study indicates a less-than-significant noise impact from project-related traffic into or out of the project parking lot. Project-related traffic will not cause noise standards to be exceeded, nor make measurably worse any existing violation.

Site use for recreational activities or special event assembly involving any substantial number of attendees may cause the noise ordinance standard to be exceeded at the closets homes. The perimeter wall(s) will provide measurable noise reduction benefit, but there could be narrow windows of sound transmission that could impact the closest neighbors. The following measures will reduce noise impact potential to a less-than-significant level:

- Groups with more than 50 planned attendees shall be required to obtain a special events permit from the MRCA. The MRCA shall include in their Special Event Guidelines for Marsh Park a statement that operation of any radio, video, musical instrument or other noise-generating device at a level which is audible beyond 150 feet from the park boundary is prohibited. The reservation form for the event shall identify limitations on number of attendees, event timing and noise control features such as orientation of any voice/music amplification.

- An MRCA staff monitor shall be present for any nighttime event to ensure that the event does not generate noise levels that would disturb the peace, quite and comfort of the neighbors.

- The MRCA shall post a sign on-site which provides a phone number for contacting the agency.

APPENDIX C

TRAFFIC ANALYSIS

TRAFFIC STUDY

MARSH PARK EXPANSION

Mountains Recreation and Conservation Authority

Los Angeles, California

arch beach

CONSULTING

February 21, 2012

TRAFFIC STUDY

MARSH PARK EXPANSION
ELYSIAN VALLEY, LOS ANGELES

Mountains Recreation and Conservation Authority, Los Angeles, California

Prepared by

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Project No. 11011
February 21, 2012

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APPENDICES

1.0 INTRODUCTION

The following presents the traffic study prepared by Arch Beach Consulting for the proposed 3.0 acre Marsh Park Expansion (proposed project) at the northern terminus of Rosanna Street in the Elysian Valley area of the City of Los Angeles (City). The proposed project would expand the existing park and skate park at the northern terminus of Marsh Street by developing an adjacent city park with amenities such as a picnic shelter, nature trails, and a free-play meadow, on a vacant 3.0 acre site west of the existing park. This traffic study has been prepared consistent with the methodologies of the Los Angeles Department of Transportation (LADOT) and methodologies from the Institute of Transportation Engineers (ITE).

Purpose and Objectives

The purpose of this traffic study is to evaluate the traffic and circulation, and parking impacts of the proposed project. The study objectives include:

- Documentation of existing traffic conditions and existing plus project traffic conditions corresponding to when the proposed project would be completely built-out and fully operational.
- Determination of additional circulation system features and system management actions needed to achieve City level of service requirements with implementation of the proposed project (if required).
- Determination of the adequacy of proposed on-site parking facilities based on the peak demands of the project's proposed ancillary uses.

Per discussions with LADOT staff (Eileen Hunt, LADOT, November 2011), according to LADOT's *Traffic Study Policies and Procedures* (August 2011), the project does not meet the requirement for a Technical Memorandum (adding 25 to 42 peak hour trips during a weekday) or a Traffic Study (adding 500 or more daily trips or at least 43 peak hour trips during a weekday).

In addition, per review of the Los Angeles Metropolitan Transportation Authority's (MTA) Appendix B of the 2004 Los Angeles County Congestion Management Program's (CMP) *Guidelines for CMP Transportation Impact Analysis*, a regional CMP-level traffic analysis is not required for the proposed project since it would not add 50 or more weekday peak hour trips to a CMP facility. The nearest CMP facility to the project site is the Golden State Freeway – Interstate 5 (I-5).

Since the proposed project would not meet the minimum requirements to conduct a comprehensive traffic study for review by LADOT and MTA, the following traffic study primarily focuses on the potential project impacts in the immediate residential neighborhood surrounding the project site.

Site Location and Study Area

The project site is located within the City of Los Angeles, in the Elysian Valley area, and currently consists of vacant land owned by the Mountain Recreation and Conservation Authority (MCRA). Specifically, the project site is located at the northern terminus of Rosanna Street, between Gleneden Street and Marsh Street. An existing park, Marsh Park, and skate park, are located at the northern terminus of Marsh Street, adjacent and east of the project site.

Regional access is provided by Ripple Street to the west, which provides access to I-5 via Fletcher Drive; and, by Newell Street to the south, which also provides access to I-5 and the Glendale Freeway – State Route 2 (SR 2) via Riverside Drive. Local access to the site is provided by Rosanna Street and Gleneden Street.

The localized study area intersections and roadways are as follows:

1. Ripple Street/Rosanna Street
2. Ripple Street/Marsh Street
3. Ripple Street/Coolidge Avenue
4. Ripple Street/Newell Street
5. Gleneden Street, between Ripple Street and proposed access
6. Rosanna Street, between Ripple Street and proposed access
7. Ripple Street, south of Rosanna Street

Figure 1 illustrates the project site location and study area intersections and roadways.

Methodology

Per the methodologies outlined in the LADOT *Traffic Study Policies and Procedures*, all four unsignalized study intersections were analyzed for weekday a.m. and p.m., and Saturday midday, peak hour levels of service (LOS). The Transportation Research Board *Critical Movement Analysis* (CMA), Circular 212 Planning Method, was used to determine intersection LOS. The CMA method determines the volume-to-capacity (V/C) ratio on a critical lane basis and LOS associated with each V/C ratio at an intersection. As directed by LADOT, specific parameters are given to unsignalized intersections (e.g., assume as two-phase signal with 1,200 vehicles per hour capacity) when analyzed under the CMA methodology.

The degree of congestion at an intersection is described by the level of service, which ranges from LOS A to LOS F, with LOS A representing free-flow conditions with little delay and LOS F representing over-saturated traffic flow throughout the peak hour. A complete description of the meaning of level of service can be found in the Highway Research Board Special Report 209, *Highway Capacity Manual* (HCM 2000). Brief descriptions of the six levels of service for signalized intersections are shown in Table A.

Table A – Level of Service Definitions for Signalized Intersections Based on CMA Method

Level of Service	V/C Ratio or ICU
A	0.00 – 0.60
B	0.61 – 0.70
C	0.71 – 0.80
D	0.81 – 0.90
E	0.91 – 1.00
F	1.01 or greater

Table B provides a description of each specific level of service grade (LOS A through LOS F).

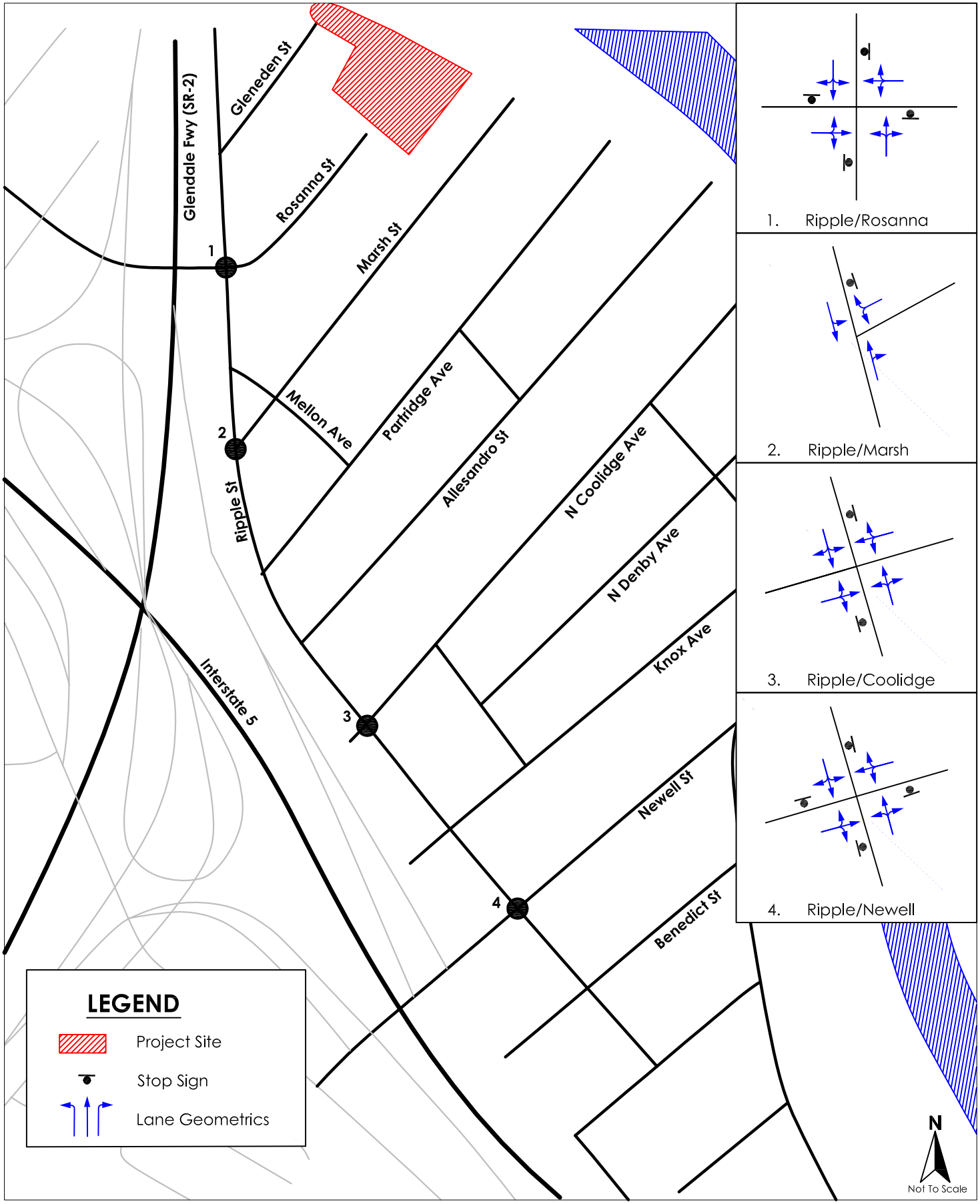

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Figure 1
Project Site Location and Study Area

Table B – Level of Service Descriptions

LOS	Description
A	No approach phase is fully utilized by traffic, and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are nearing full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.
D	This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially, and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.

SOURCE: Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.

Significance Criteria

Per the LADOT *Traffic Study Policies and Procedures*, a project would have a significant impact if it resulted in an increase in the V/C ratio of an intersection operating at LOS C, D, E, or F per the increases noted below in Table C.

Table C – LADOT Significance Criteria

Level of Service	Final V/C Ratio	Project-Related Increase in V/C
C	> 0.700 – 0.800	equal to or greater than 0.040
D	> 0.800 – 0.900	equal to or greater than 0.020
E, F	> 0.900	equal to or greater than 0.010

Source: LADOT *Traffic Study Policies and Procedures*, August 2011

For intersections significantly impacted by the project in the weekday a.m. and/or p.m. peak hours, or the weekend (Saturday) midday peak hour, mitigation measures will be provided to bring the intersection LOS back to baseline (i.e., "before project") LOS levels.

Traffic Analysis Scenarios

This traffic study analyzed the following traffic scenarios:

Existing Condition

Existing weekday and Saturday traffic volumes in the study area were collected in early November 2011 during a typical week, while nearby schools were in regular session. The existing traffic scenario constitutes the environmental setting in accordance with the California Environmental Quality Act (CEQA) analysis at the time that the hearing body reviews the proposed project.

Opening Year (2014) Baseline Condition

The proposed project is anticipated to be built and fully operational by year 2013. However, to provide for a conservative estimate of ambient growth, an Opening Year of 2014 was assumed for this traffic study. Opening year traffic in this scenario was forecast for 2014 by applying an ambient growth rate of 1.2 percent per year, based on the CMP ambient growth rate for "Central" Los Angeles, to the existing traffic volumes for a growth factor of 1.03. In addition, traffic from one approved project adjacent and west of the project site was added to the study area street network.

Opening Year (2014) plus Project Condition

The Opening Year (2014) plus Project Condition traffic was developed by adding the proposed project traffic to the Opening Year Baseline Condition. This scenario was the basis for determining project-specific impacts and mitigation measures.

2.0 PROJECT DESCRIPTION AND TRAFFIC GENERATION

The following section provides information on the permanent operation of the proposed project relative to the local circulation network.

Project Size and Description

Figure 2 illustrates the site plan of the proposed project. The proposed project is the expansion of the existing Marsh Park and skate park, with a 3.0 acre city park with the following amenities:

- Free play meadow
- Health and fitness stations
- Landscaped walking and nature trails
- Bench seating areas
- A picnic shelter that can accommodate up to 200 persons
- Restrooms
- Direct access to the existing Marsh Park, skate park, and Los Angeles River Greenway Trail (a Class I, off-street, bicycle/pedestrian trail)
- 43 marked parking spaces
- Full access from Rosanna Street and Gleneden Street

The site is currently a largely undeveloped lot with an existing warehousing structure (to be demolished) on the northwest corner of the site. A large structure, known as the Janel Building, is currently located on the northern boundary of the project site, and separates the project site from the Los Angeles River Greenway Trail. In addition, there are adjacent single-family residential uses to the south, east, and west.

Full vehicular and pedestrian access to the proposed project would occur from two driveways: 1) access at the northern terminus of Rosanna Street; and, 2) access at the northern terminus of Gleneden Street. Pedestrian and bicycle access to the Los Angeles River Greenway Trail would be provided at the northwestern corner of the project site, while pedestrian and bicycle access to the existing Marsh Park and skate park would be provided at the northeastern corner of the project site.

The park's hours of operation would be sunrise to sunset, seven days a week. During normal weekday use, the proposed 43 space parking lot would adequately serve park patrons, as a majority of the park users would originate from the adjacent neighborhood and would either walk to bike to the park. However, during peak weekend use, assuming that the picnic shelter would be operating at its full 200 person capacity, the on-site parking lot may not adequately serve the site. The MCRA will require reservations for use of the picnic shelter. The MCRA's reservation process will ensure that users of the picnic shelter indicate the number of guests expected for their event, and that a parking management plan be implemented (e.g., carpool/vanpool) so that the adjacent residential streets would not be significantly impacted by overflow parking from the park.

Not To Scale

Source: Melendrez, May 2012.

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Figure 2
Project Site Plan

Project Traffic

Trip Generation

Trip generation estimates for the proposed project were developed using trip rates from *Trip Generation, 8th Edition* (Institute of Transportation Engineers – ITE, 2008) for general the city park uses. For the proposed picnic shelter use, an operational trip generation analysis was completed based on assuming full capacity operations of the shelter (200 persons) during the weekend, and assuming a conservative 1.75 average vehicle occupancy (AVO), or 114 vehicles for 200 persons (200 persons ÷ 1.75 AVO = 114 vehicles). However, as previously indicated, the MCRA will require users of the picnic shelter, through their reservation process, to implement a parking management plan (i.e., carpooling/vanpooling) to minimize parking demand on site, and minimize overflow parking on the adjacent residential streets. A summary of the trip generation rates and resulting vehicle trips for the proposed project is presented in Table D.

Table D – Project Trip Generation Estimates

				AM Peak Hour			PM Peak Hour		
Land Use	**Size**		**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Trip Rates									
City Park (ITE Code 411) weekday [1]	per	acre	1.59	0.22	0.22	0.44	0.22	0.22	0.44
City Park (ITE Code 411) weekend [1]	per	acre	16.00	**Midday Peak Hour** =			2.00	2.00	4.00
Picnic Shelter [2]	per	person		*trips based on operational analysis*					
Weekday Trip Generation									
City Park	3.0	acres	5	1	0	1	0	1	1
Picnic Shelter	200	persons	4	2	0	2	0	2	2
TOTAL WEEKDAY TRIP GENERATION			**9**	**3**	**0**	**3**	**0**	**3**	**3**

Weekend Trip Generation				**Midday Peak Hour**		
				In	**Out**	**Total**
City Park	3.0	acres	48	6	6	12
Picnic Shelter	200	persons	236	114	11	125
TOTAL WEEKEND TRIP GENERATION			**284**	**120**	**17**	**137**

Notes:
Trip rates based on *Trip Generation, 8th Edition*, Institute of Transportation Engineers (ITE), 2008.
[1] – ITE City Park rate only provides daily trips based on acreage for weekdays and Sundays. Peak hour trip rates are conservatively based on 50% of daily trips to occur during the two peak hours (25% during a.m. peak hour and 25% during midday or p.m. peak hour).
[2] – Trip rates for the Picnic Shelter use are not provided in *Trip Generation, 8th Edition*, therefore an "operational" analysis was prepared using operational data from the City. For the weekdays, the Picnic Shelter would not be used with exception of two on-site employees. For the weekends, it is assumed that the Picnic Shelter would be used for an afternoon event with an AVO of 1.75. This would equal 114 vehicles, which equals 228 daily trips. The weekend daily trips also assume eight (8) daily trips from employees and service vehicles (i.e., caterers). Therefore, the Picnic Shelter would generate a total of 236 daily trips (228 trips + 8 trips = 236 daily trips).

As shown in the table, during the week (Monday through Friday), the proposed project would generate approximately nine (9) daily trips, three (3) trips in the a.m. peak hour (three inbound and zero outbound), and three (3) trips in the p.m. peak hour (zero inbound and three outbound). During the weekend (Saturday and Sunday), when the picnic shelter is operating at its 200-person capacity, the proposed project would generate approximately 284 daily trips and 137 midday peak hour trips (120 inbound and 17 outbound).

Trip Distribution and Assignment

Trip distribution percentages for the proposed project were based on review of current commute corridors and travel routes in the study area. Figure 3 illustrates the trip distribution percentages and resulting trip assignment for the proposed project during a typical weekday (Monday through Friday). During the weekdays, the park would primarily serve the adjacent neighborhood resulting in a majority of vehicle trips to originate within close proximity to the park. During the week, approximately 85 percent of the vehicle trips would originate from within the adjacent neighborhood, while 15 percent would originate from areas outside the neighborhood: five percent west along Ripple Street, five percent south along Newell Street, and five percent east along Ripple Street.

Figure 4 illustrates the trip distribution percentages and resulting trip assignment for the proposed project during a typical weekend (Saturday and Sunday). During the weekends and assuming the picnic shelter would be in use, the park would serve both the adjacent neighborhood and users from outside the area that would be destined to an event at the picnic shelter. Therefore, during the weekends, approximately 40 percent of the vehicle trips would originate from within the adjacent neighborhood, while 60 percent would originate from areas outside the neighborhood: 30 percent west along Ripple Street, 20 percent south along Newell Street, and 10 percent east along Ripple Street.

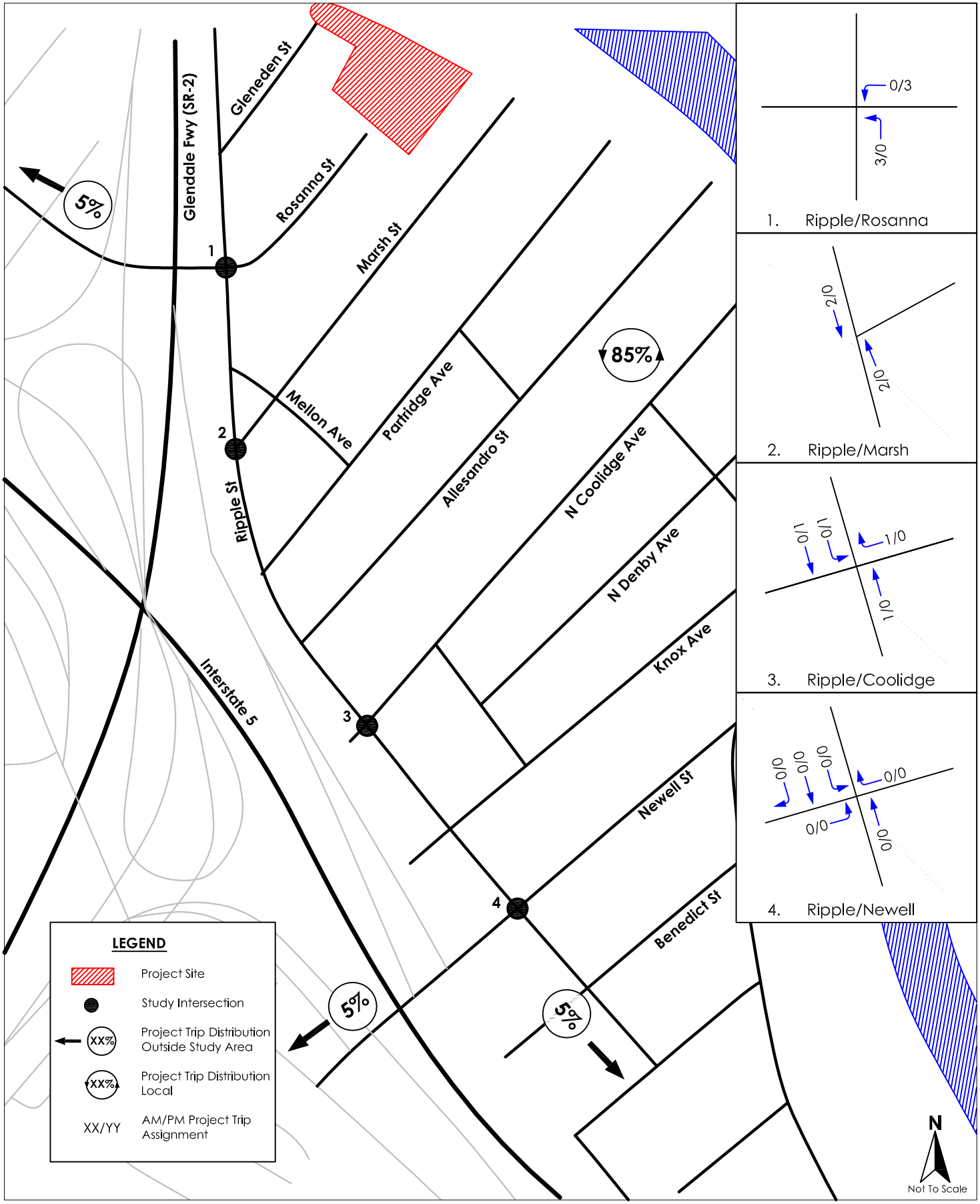

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Figure 3
Weekday Project
Trip Distribution and Assignment

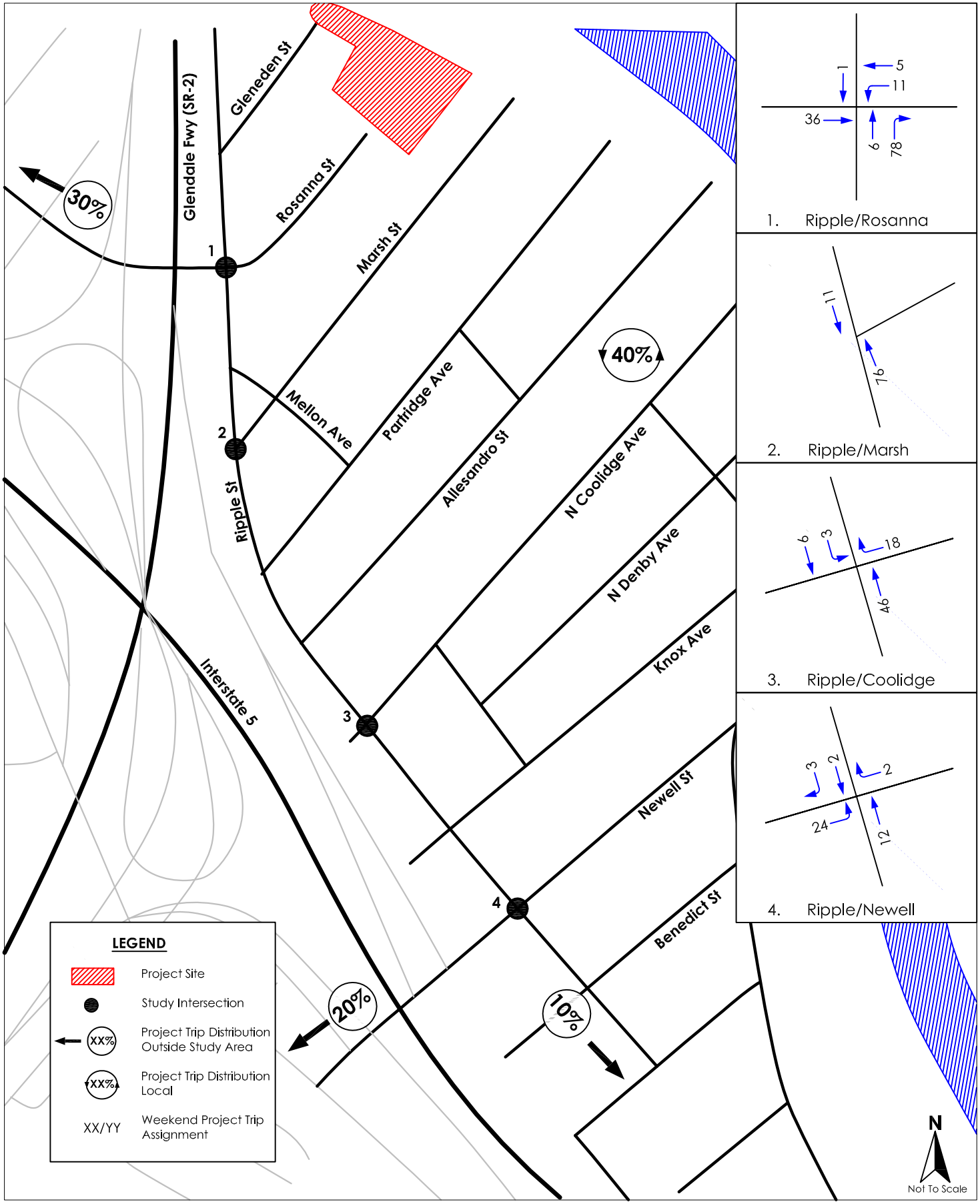

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Figure 4
Weekend Project
Trip Distribution and Assignment

3.0 AREA CONDITIONS

The following section describes the existing traffic conditions in the project study area.

Existing Traffic Conditions

Roadways

Regional access to the Golden State Freeway (I-5) and the Glendale Freeway (SR 2) is provided by Ripple Street, via Fletcher Drive; and, Newell Street, via Riverside Drive. Local access to the site is provided by Rosanna Street and Gleneden Street. The following describes the existing roads in the study area.

Ripple Street

Ripple Street is an undivided two-lane collector street with on-street parking permitted on both sides along its approximately 0.9 mile length, starting at Fletcher Drive and ending at Queen Street. After its undercrossing of the Glendale Freeway, this roadway would provide direct access to the project site at its intersection with Rosanna Street. There is no posted speed limit on the roadway within the study area. On the east side of Ripple Street there is no on-street parking permitted from 8:30 a.m. to 10:30 a.m. on Thursdays for street cleaning, while the west side has parking restrictions from 11:30 a.m. to 1:30 p.m. on Fridays. Average daily traffic volumes collected in November 2011 are approximately 3,910 vehicles per day, south of Rosanna Street.

Newell Street

Newell Street is an undivided two-lane collector street with on-street parking permitted on both sides along its approximately 0.4 mile length, starting at Riverside Drive and terminating at the Los Angeles River Greenway Trail. Newell Street provides access to the project site via Ripple Street to Rosanna Street. Newell Street is the main collector that provides access to Riverside Drive which as ramps for the I-5. In addition, a direct on-ramp to northbound SR 2 exists just west of its intersection with Ripple Street. There is no posted speed limit on the roadway within the study area. On the north side of Newell Street there is no on-street parking permitted from noon to 2:00 p.m. on Thursdays for street cleaning, while the south side has parking restrictions from noon to 2:00 p.m. on Fridays. On-street parking is restricted on both sides of Newell Street from 2:00 a.m. to 6:00 a.m.

Rosanna Street

Rosanna Street is a residential two-lane street with on-street parking permitted on both sides along its approximately 0.1 mile length, starting at Ripple Street and ending at one of the two entrances to the project site. There is no posted speed limit on the roadway within the study area. On the north side of Rosanna Street there is no on-street parking permitted from 11:30 a.m. to 1:30 p.m. on Thursdays for street cleaning, while the south side has parking restrictions from 11:30 a.m. to 1:30 p.m. on Fridays. Average daily traffic volumes collected in November 2011 are approximately 340 vehicles per day.

Gleneden Street

Gleneden Street is a residential two-lane street with on-street parking permitted on both sides along its approximately 0.1 mile length, starting at Ripple Street and ending at one of the two entrances to the project site. There is no posted speed limit on the roadway within the study area. On the north side of Gleneden Street there is no on-street parking permitted from 11:30 a.m. to 1:30 p.m. on Thursdays for street cleaning, while the south

side has parking restrictions from 11:30 a.m. to 1:30 p.m. on Fridays. On both sides of the street, on-street parking is limited to two hours from 8:00 a.m. to 6:00 p.m., Monday through Friday. Average daily traffic volumes collected in November 2011 are approximately 200 vehicles per day.

Traffic Volumes

Figure 5 illustrates the existing daily, a.m. and p.m. peak hour traffic volumes at the study locations, while Figure 6 illustrates the existing weekday (Saturday) midday peak hour traffic volumes. Existing daily, weekday a.m. and p.m. peak hour, and Saturday midday peak hour traffic counts were collected in the study area in early November 2011 while nearby schools were in session. Appendix A contains the raw traffic volume worksheets.

Levels of Service

Based on the analysis methodology described in Section 1.0, the existing weekday a.m. and p.m. peak hour, and weekend (Saturday) midday peak hour traffic volumes were analyzed using LADOT's CMA intersection LOS methodology to determine the existing intersection volume-to-capacity (V/C) and level of service (LOS) values. Table E presents the results of the existing intersection LOS analysis, while the LOS calculation sheets are provided in Appendix B.

Table E – Existing Condition Intersection Level of Service Summary

Intersection	Control	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
		V/C	LOS	V/C	LOS	V/C	LOS
1. Ripple Street/Rosanna Street	all-way stop	0.196	A	0.179	A	0.166	A
2. Ripple Street/Marsh Street	1-way stop	0.087	A	0.058	A	0.069	A
3. Ripple Street/Coolidge Avenue	2-way stop	0.109	A	0.102	A	0.097	A
4. Ripple Street/Newell Street	all-way stop	0.170	A	0.156	A	0.168	A

Note: LOS determined using Circular 212 method for unsignalized intersections per LADOT.

Based on the table, all four study area intersections are currently operating at satisfactory levels of service at LOS A in all peak hours.

Transit Service

There are no transit services or routes in the immediate project vicinity. Regional transit service is provided by the Metropolitan Transportation Authority (MTA) with two routes in the area: 1) Route 96 – Downtown LA to Burbank; and, 2) Route 603 – Grand Station to Glendale Galleria. Bus stops for Route 96 are located approximately 0.6 miles away from the project site, with weekday, Saturday, and Sunday/holiday service. Bus stops for Route 603 are located approximately 0.5 miles away, with only weekday shuttle service.

Pedestrian and Bicycle Facilities

There are three basic categories of bike trails within the City, as defined by Caltrans. Class I bike paths involve designs which are completely separated from traffic lanes. Class II paths are on-street paths that are located along the edge of a street with a striped lane denoting this bike path. Class III paths also are located along a street edge, but are not striped. These paths are identified by street signs only. Currently, the Los Angeles River Greenway Trail is a Class I facility that provides pedestrian and bicycle-only travel along the west side of the Los Angeles River in the project vicinity. Ripple Street is

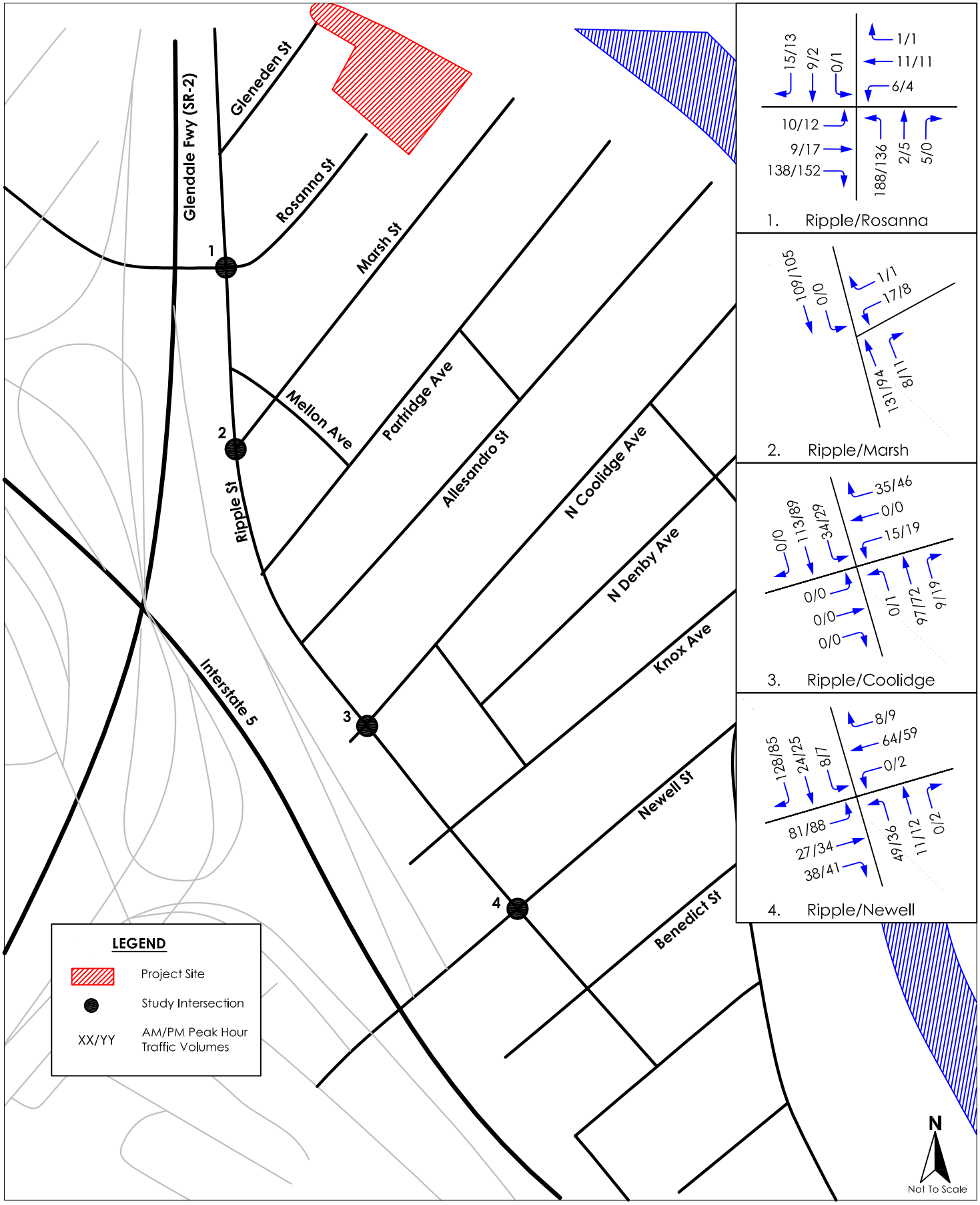

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Figure 5
Existing Weekday
Traffic Volumes

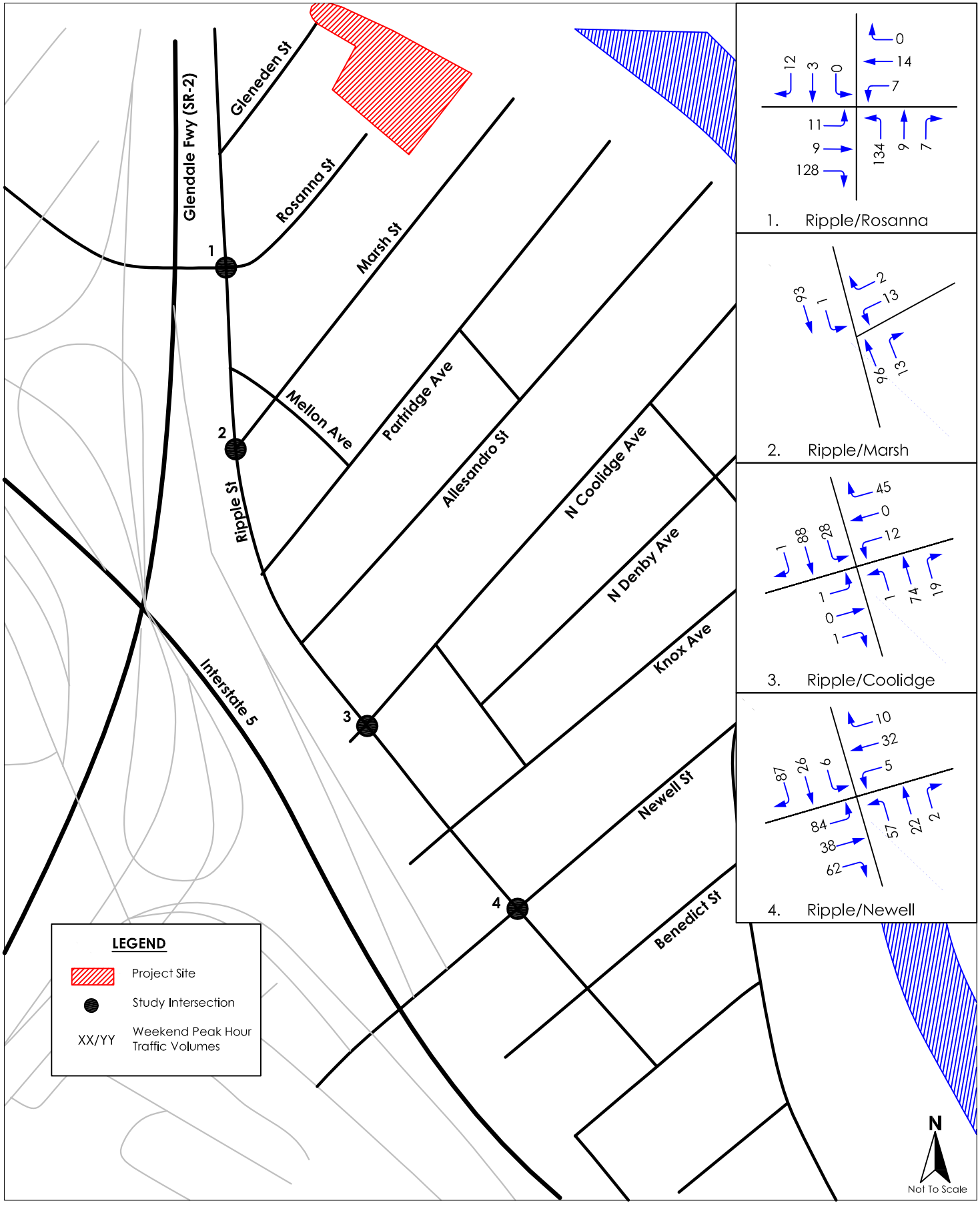

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Figure 6
Existing Weekend (Saturday) Traffic Volumes

designated as a Class III bike trail with signage denoting bicycle routes. All streets in the study area contain sidewalks on both sides of the road, with exception of Ripple Street, which does not have a sidewalk along its frontage with the I-5 right-of-way.

4.0 FUTURE TRAFFIC CONDITIONS

This section describes the future traffic conditions related to the following traffic scenarios:

- Opening Year (2014) Baseline
- Opening Year (2014) plus Project

Opening Year (2014) Baseline

The proposed project is anticipated to be built and fully operational by year 2014. This scenario is comprised of existing traffic conditions plus ambient traffic growth over a three year period (2011 to 2014). Opening year traffic was forecast for 2014 by applying an ambient growth rate of 1.2 percent per year, based on the CMP ambient growth rate for "Central" Los Angeles, to the existing traffic volumes for a growth factor of 1.03. In addition, traffic from one approved project, a 56 dwelling unit (DU) condominium located adjacent and west of the project site, was added to the study area street network. Per ITE rates, this approved condominium project would generate approximately 325 daily trips, 25 a.m. peak hour trips (four inbound and 21 outbound), and 29 p.m. peak hour trips (19 inbound and 10 outbound). For the Saturday midday peak hour, the approved 56 DU condominium project would generate approximately 318 weekend daily trips, and 26 midday peak hour trips (14 inbound and 12 outbound).

The ambient growth rate and traffic from the adjacent approved project was applied to the through volumes along Ripple Street and Newell Street. No ambient growth is anticipated on Rosanna Street and Gleneden Street.

No additional improvements to the study area roadways and intersections are anticipated to occur in the 2014 Opening Year scenario. Therefore, the existing intersection traffic controls and geometrics were utilized in the level of service analysis.

Traffic Volumes

Traffic volumes for the Opening Year (2014) Baseline (without project) scenario were determined by applying the ambient growth rate, and traffic from the approved 56 DU condominium project, discussed above to the existing through volumes on Ripple Street and Newell Street for the weekday a.m. and p.m. peak hours and weekend (Saturday) midday peak hour. Access to the approved condominium project would be at the northern end of Ripple Street, with 50 percent of that project's traffic headed west on Ripple Street, towards Fletcher Avenue, and 50 percent headed south on Ripple Street towards Newell Street and Riverside Drive. Appendix C contains the approved project's *Case Information Summary Sheet* from the City Planning Department, as well as the proposed site plan.

Figure 7 illustrates the resulting Opening Year (2014) Baseline weekday a.m. and p.m. peak hour traffic volumes. Figure 8 illustrates the Opening Year Baseline weekend (Saturday) midday peak hour traffic volumes.

Levels of Service

The Opening Year (2014) Baseline weekday a.m. and p.m. peak hour and weekend (Saturday) midday peak hour traffic volumes were input into the TRAFFIX LOS software to determine this scenario's intersection V/C ratios and corresponding LOS values. Table F presents the results of the Opening Year (2014) Baseline intersection LOS analysis. Appendix B provides the LOS calculation worksheets at each study area intersection.

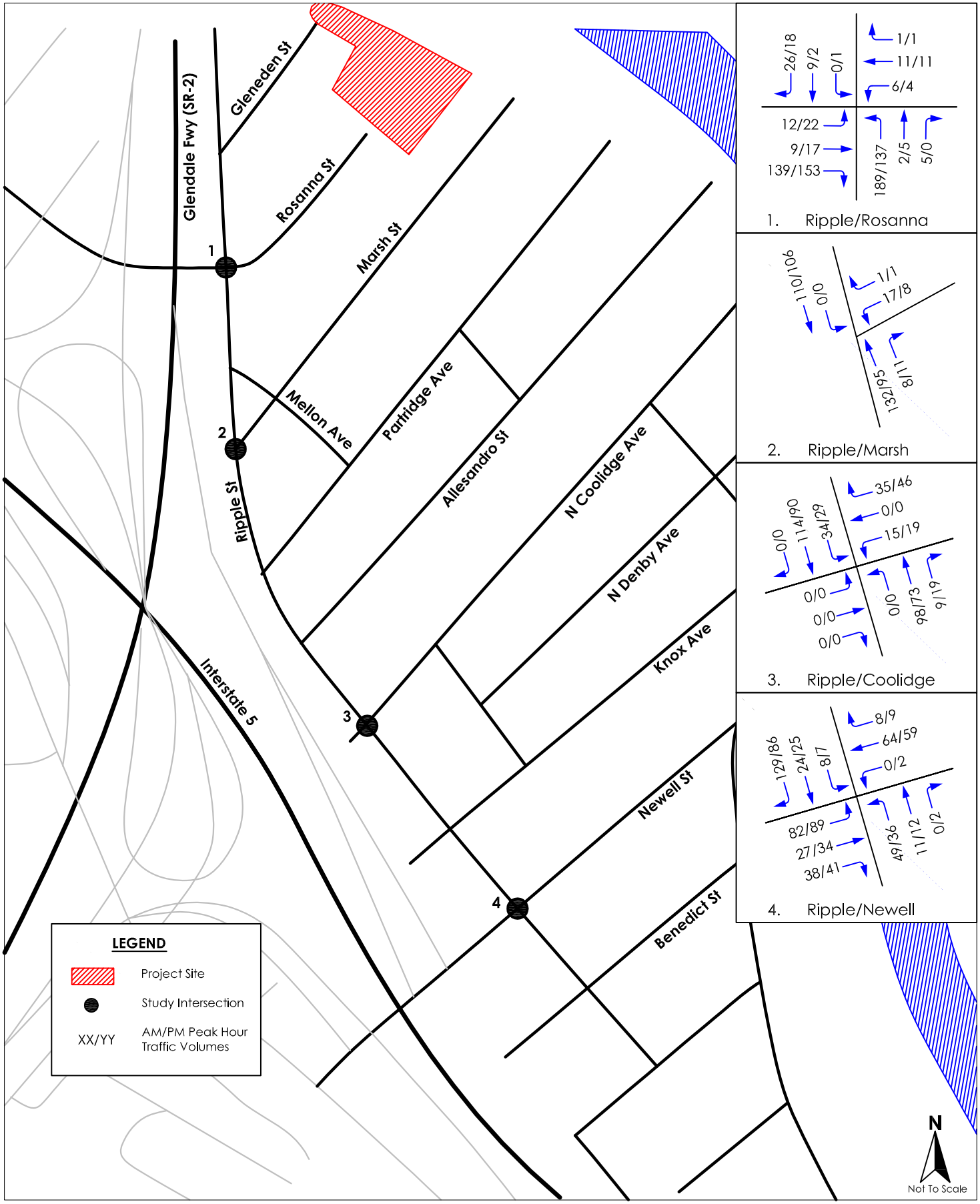

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Figure 7
Opening Year Weekday Baseline Traffic Volumes

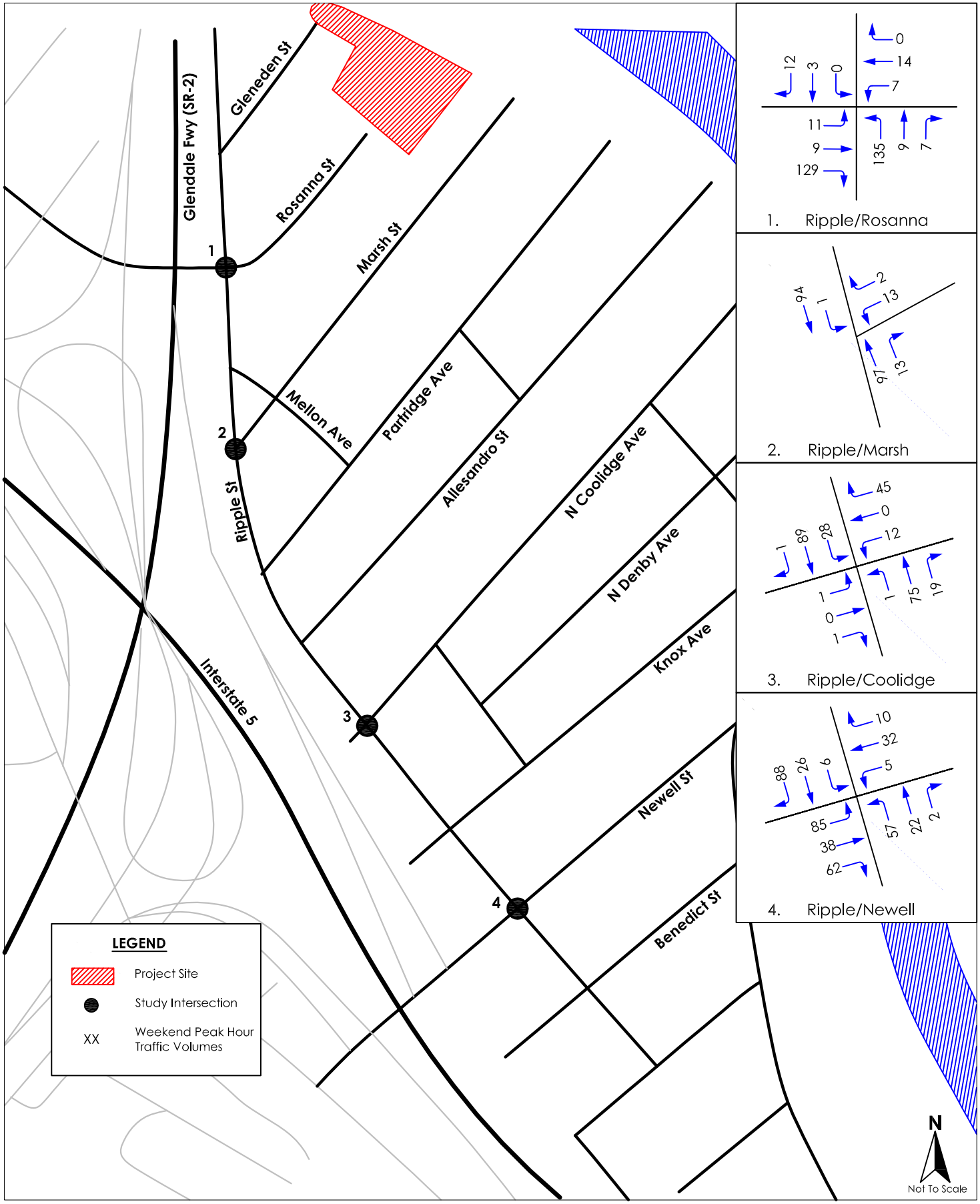

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Figure 8
Opening Year Weekend (Saturday) Traffic Volumes

Table F – Opening Year Baseline Intersection Level of Service Summary

Intersection	Control	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
		V/C	LOS	V/C	LOS	V/C	LOS
1. Ripple Street/Rosanna Street	all-way stop	0.297	A	0.279	A	0.250	A
2. Ripple Street/Marsh Street	1-way stop	0.132	A	0.096	A	0.104	A
3. Ripple Street/Coolidge Avenue	2-way stop	0.165	A	0.154	A	0.146	A
4. Ripple Street/Newell Street	all-way stop	0.257	A	0.235	A	0.254	A

Note: LOS determined using Circular 212 method for unsignalized intersections per LADOT.

Based on the table, all four study area intersections would continue to operate with satisfactory levels of service at LOS A in all peak hours.

Opening Year (2014) plus Project

Traffic generated by the proposed project was added to the Opening Year (2014) Baseline weekday and weekend (Saturday) scenarios, and the project impacts on the circulation system were analyzed. This scenario would determine project-specific impacts and mitigation measures (if required).

Traffic Volumes

The project trip assignments shown in Figures 3 (weekday) and 4 (weekend – Saturday) were added to the Opening Year (2014) Baseline traffic volumes in Figures 7 (weekday) and 8 (weekend – Saturday) in the Opening Year (2014) plus Project traffic conditions. Figure 9 illustrates the Opening Year (2014) plus Project weekday a.m. and p.m. peak hour traffic volumes. Figure 10 illustrates the Opening Year (2014) weekend (Saturday) midday peak hour traffic volumes.

Levels of Service

The Opening Year (2014) plus Project weekday a.m. and p.m. peak hour, and weekend (Saturday) midday peak hour traffic volumes were input into the TRAFFIX software to determine this scenario's intersection V/C ratios and corresponding LOS values. Table G presents the results of the intersection LOS analysis and provides a comparison to the Opening Year (2014) Baseline scenarios, as well as the change in V/C ratios. The LOS calculation sheets are provided in Appendix B.

Table G – Opening Year plus Project Intersection Level of Service Summary

Intersection	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
	V/C	LOS	Increase	V/C	LOS	Increase	V/C	LOS	Increase
1. Ripple St/Rosanna St	0.300	A	+0.003	0.279	A	0.000	0.350	A	+0.100
2. Ripple St/Marsh St	0.133	A	+0.001	0.097	A	+0.001	0.167	A	+0.063
3. Ripple St/Coolidge Ave	0.166	A	+0.001	0.155	A	+0.001	0.180	A	+0.034
4. Ripple St/Newell St	0.257	A	0.000	0.235	A	0.000	0.278	A	+0.033

Note: LOS determined using Circular 212 method for unsignalized intersections per LADOT.

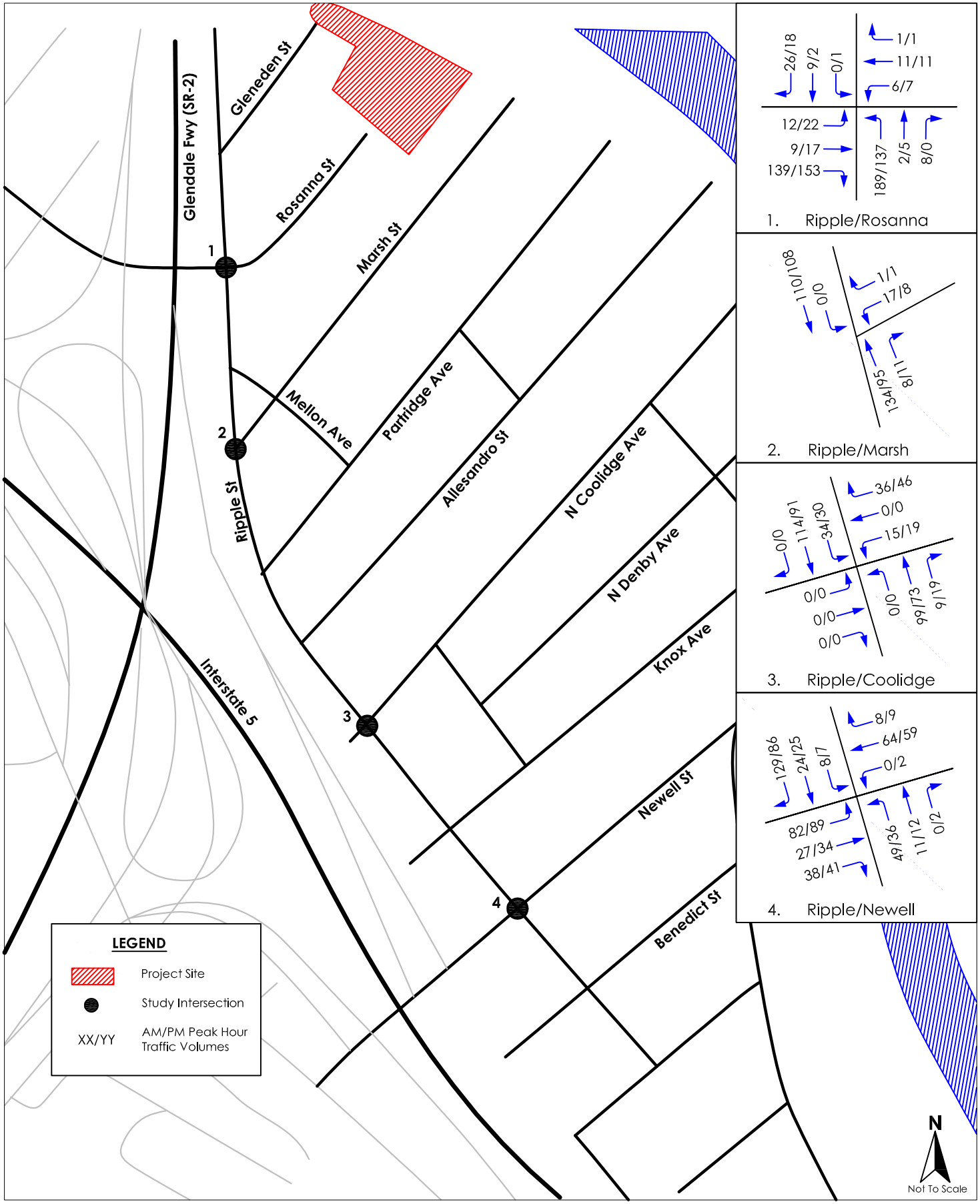

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Figure 9
Opening Year Weekday Baseline plus Project Traffic Volumes

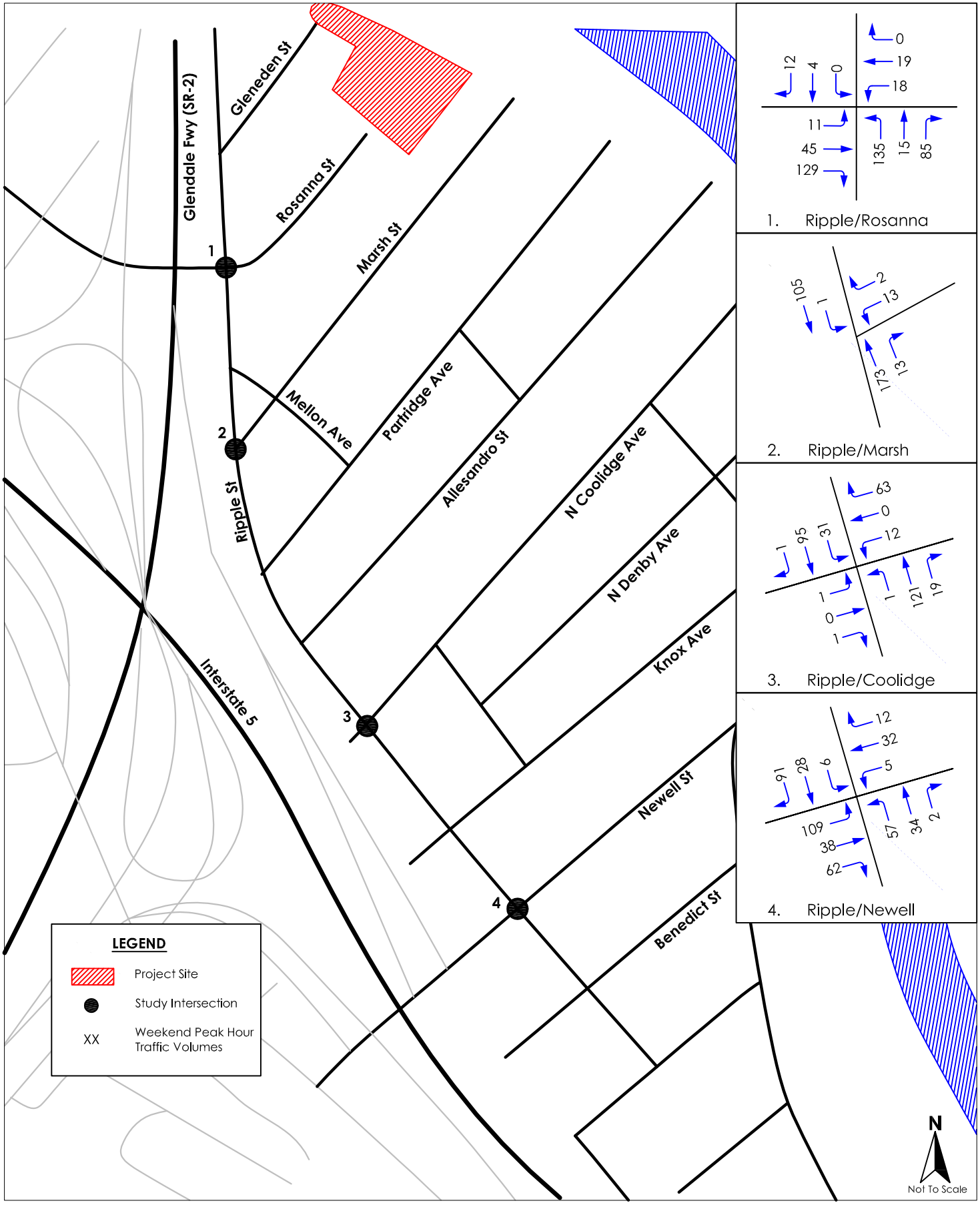

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Figure 10
Opening Year Weekend (Saturday)
Baseline plus Project Traffic Volumes

With addition of trips from the proposed project, all four intersections would continue to operate at LOS A in the weekday a.m. and p.m. peak hours, and the weekend (Saturday) midday peak hour. Applying the significance criteria provided in Table C – LADOT Significance Criteria, with the addition of project traffic, there would be no significant impacts to the four study intersections as all increases in V/C associated with the proposed project would be less than the LADOT criteria: LOS C ≥ 0.040 V/C; LOS D ≥ 0.020 V/C; and LOS E and F ≥ 0.010 V/C.

Mitigation Measures

None required.

5.0 PROJECT ACCESS & CIRCULATION, AND ON-SITE PARKING

Project Access and Circulation

Based on review of the project site plan, vehicular access to the site would be provided by new full access driveways on Rosanna Street and Gleneden Street. Although Ripple Street intersects with Rosanna Street providing a more direct route to the project site via Rosanna Street, another full access on Gleneden Street would also serve project traffic. The access on Gleneden Street would have direct access to the proposed picnic shelter, while the access on Rosanna Street would have direct access to the free play meadow.

The driveway access locations on Gleneden Street and Rosanna Street would be designed to equally accommodate project traffic destined to the park. However, because Ripple Street directly connects with Rosanna Street, and to provide a conservative analysis of project traffic at the Ripple Street/Rosanna Street intersection, it was assumed that all weekday traffic to and from the proposed project would likely use Rosanna Street. During the weekend, assuming full occupancy of the picnic shelter, the proposed project would add approximately 270 daily trips and 130 midday peak hour trips (95 percent distribution) to Rosanna Drive, while 14 daily trips and seven midday peak hour trips (five percent distribution) would be added to Gleneden Street. As shown in the Opening Year plus Project intersection LOS analysis, the intersection of Ripple Street/Rosanna Street would continue to operate at LOS A during the weekday and weekend (Saturday) peak hours. Therefore, the roadways (Rosanna Street and Gleneden Street) and intersection (Ripple Street/Rosanna Street) directly serving the proposed project would have ample capacity to serve its traffic.

Even if the MRCP were to revise the driveway at Gleneden Street to a one-way outbound access, all inbound project traffic could still be accommodated on Rosanna Street, and intersection LOS would likely remain at LOS A.

Review of the site plan shows a single, double-loaded (i.e., parking stalls on both sides of aisle) drive aisle serving the 43-space parking lot. The site plan will be required to conform to the City of Los Angeles' on-site design criteria and standards. A "hammerhead" driveway is provided in the easternmost area of the parking lot allowing for a vehicle turnaround at the end of the drive aisle. On the west side of the parking lot, another access to the park from Gleneden Street would be provided to allow for additional ingress and egress from the project site.

On-site Parking

The City's Zoning Code, *Section 12.21.A.4 – Off-Street Automobile Parking Requirements*, does not provide parking requirements for park land uses. However, the Institute of Transportation Engineers (ITE) *Parking Generation, 3rd Edition* (2004) published an observed parking rate of 5.1 parked vehicles per acre for a City Park (ITE Code 411) land use. Using the ITE rate of 5.1 spaces per acre, the proposed three acre park would need a minimum of 15 parking spaces.

The park's hours of operation would be sunrise to sunset, seven days a week. Therefore, there would be no parking demand during the evening hours, which corresponds to the peak parking demand of the surrounding residential neighborhood. During normal weekday use, the proposed 43 space parking lot would adequately serve park patrons, as a majority of the park users would originate from the adjacent neighborhood and

would either walk to bike to the park. However, during peak weekend use, assuming that the picnic shelter would be operating at its full 200 person capacity, the on-site parking lot may not adequately serve the site if no parking management plan is implemented. The MCRA will require reservations for use of the picnic shelter. The MCRA's reservation process will ensure that users of the picnic shelter indicate the number of guests expected for their event, and that a parking management plan be implemented (e.g., carpool/vanpool) so that the adjacent residential streets would not be significantly impacted by overflow parking from the park.

Mitigation Measures

None required.

6.0 SUMMARY AND CONCLUSIONS

Traffic

Based on the traffic analysis performed for the Marsh Park Expansion, the following conclusions are made regarding the park's addition of traffic to the study area street network:

- During the week, the proposed project would generate approximately nine (9) daily trips, three (3) trips in the a.m. peak hour (three inbound and zero outbound), and three (3) trips in the p.m. peak hour (zero inbound and three outbound).
- During the weekend, assuming the picnic shelter is operating at its 200-person capacity, the proposed project would generate approximately 284 daily trips and 137 midday peak hour trips (120 inbound and 17 outbound).
- With addition of trips from the proposed project, all four study area intersections would continue to operate at LOS A in the weekday a.m. and p.m. peak hours, and the weekend (Saturday) midday peak hour. Applying the significance criteria provided in Table C – LADOT Significance Criteria, with the addition of project traffic, there would be no significant impacts to the four study intersections.
- No mitigation measures are required for the study area intersection and roadway segments.

Project Access and Circulation

Based on review of the site plan for the Marsh Park Expansion, the following conclusions are made regarding project access and circulation:

- With addition of traffic from the proposed project, the intersection of Ripple Street/Rosanna Street would continue to operate at LOS A during the weekday and weekend (Saturday) peak hours. Therefore, the roadways (Rosanna Street and Gleneden Street) and intersection (Ripple Street/Rosanna Street) directly serving the proposed project would have ample capacity to serve its traffic. Even if the MRCP were to revise the driveway at Gleneden Street to a one-way outbound access, all inbound project traffic could still be accommodated on Rosanna Street, and intersection LOS would likely remain at LOS A.
- The site plan will be required to conform to the City of Los Angeles' on-site design criteria and standards. A "hammerhead" driveway is provided in the easternmost area of the parking lot allowing for a vehicle turnaround at the end of the drive aisle. On the west side of the parking lot, another access to the park from Gleneden Street would be provided to allow for additional ingress and egress from the project site.
- No mitigation measures are required for the project's access and internal circulation.

Parking

Based on review of the site plan for the Marsh Park Expansion, the following conclusions are made regarding on-site parking:

- During normal weekday use, the proposed 43 space parking lot would adequately serve park patrons, as a majority of the park users would originate from the adjacent neighborhood and would either walk to bike to the park.

- During peak weekend use, assuming that the picnic shelter would be operating at its full 200 person capacity, the on-site parking lot would adequately serve the site as the MCRA will require reservations for use of the picnic shelter. The MCRA's reservation process will ensure that users of the picnic shelter indicate the number of guests expected for their event, and that a parking management plan be implemented (e.g., carpool/vanpool) so that the adjacent residential streets would not be significantly impacted by overflow parking from the park.
- No mitigation measures are required for the project's on-site parking.

7.0 REFERENCES

City of Los Angeles, Department of Transportation (LADOT), *Traffic Study Policies and Procedures*, August 2011.

Institute of Transportation Engineers (ITE), *Parking Generation, 3rd Edition*, 2004.

Los Angeles, City of, *Case Information Summary Sheet for CPC-2005-6796-ZC-GPA-ZV-ZAA*, February 2012.

Los Angeles Metropolitan Transportation Authority's (MTA), *Appendix B of the 2004 Los Angeles County Congestion Management Program's (CMP) Guidelines for CMP Transportation Impact Analysis*, 2004.

Ritchie-Bray, Inc., *Landscape Plan for 56-Unit Condominium Complex – Anastasi Development Company*, Inc., March 2011.

Transportation Research Board, *Highway Capacity Manual*, Special Report No. 209, Washington, D.C., 2000.

APPENDIX A

Raw Traffic Volume Counts

ITM Peak Hour Summary

Prepared by:

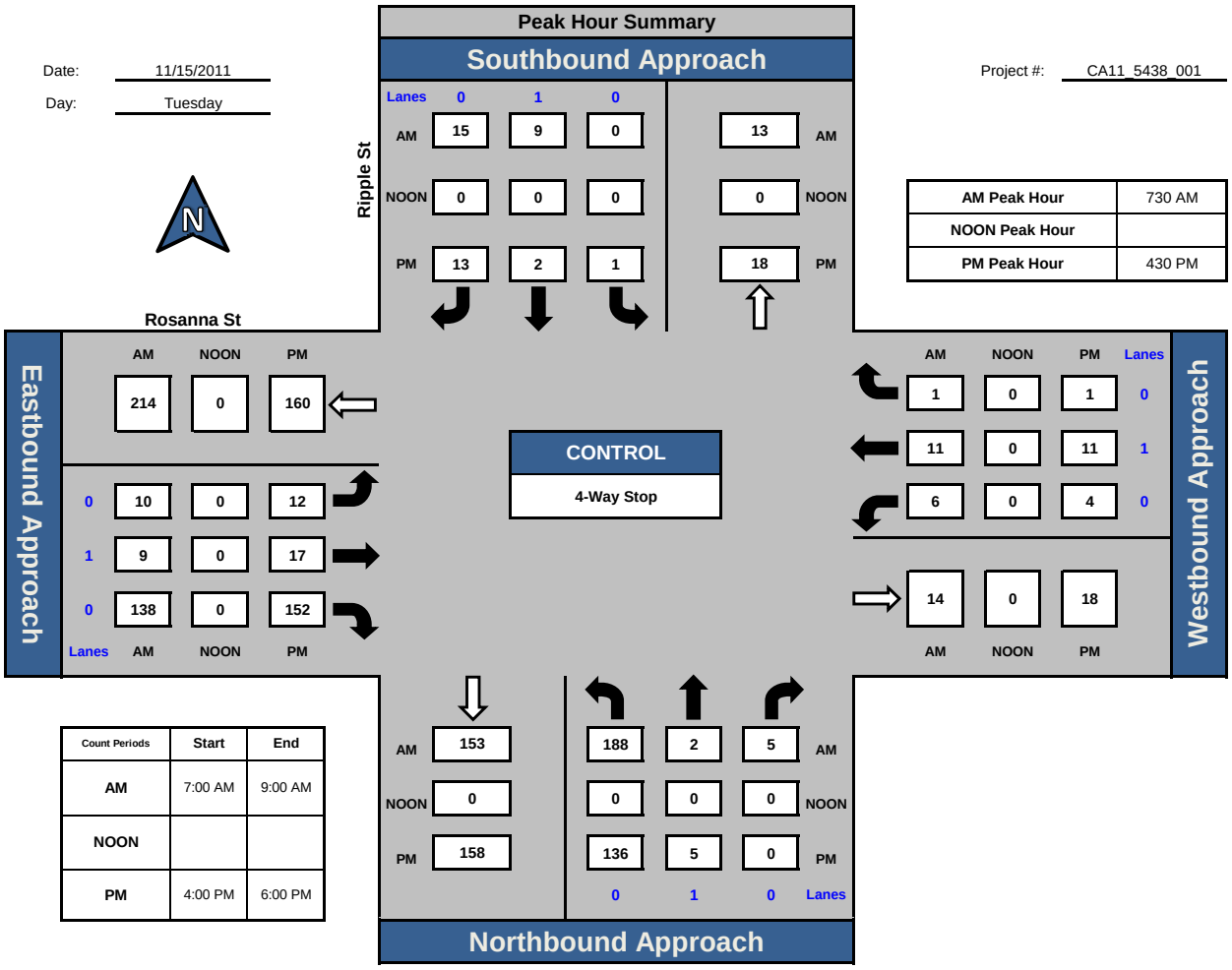
National Data & Surveying Services

Ripple St and Rosanna St , City of Los Angeles

Date: 11/15/2011

Day: Tuesday

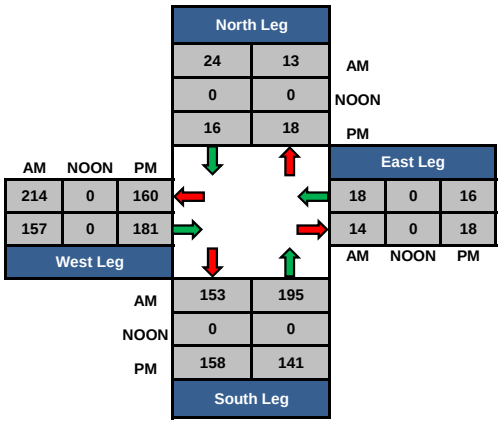
Project #: CA11_5438_001



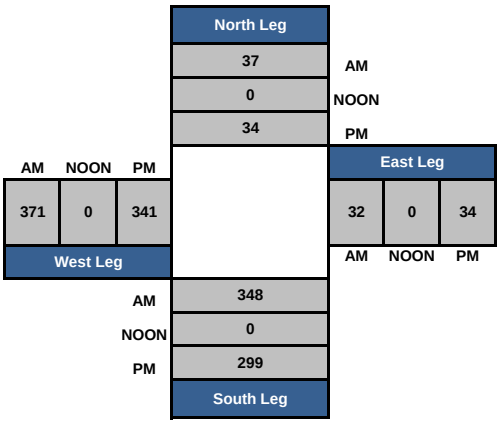
AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	430 PM

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

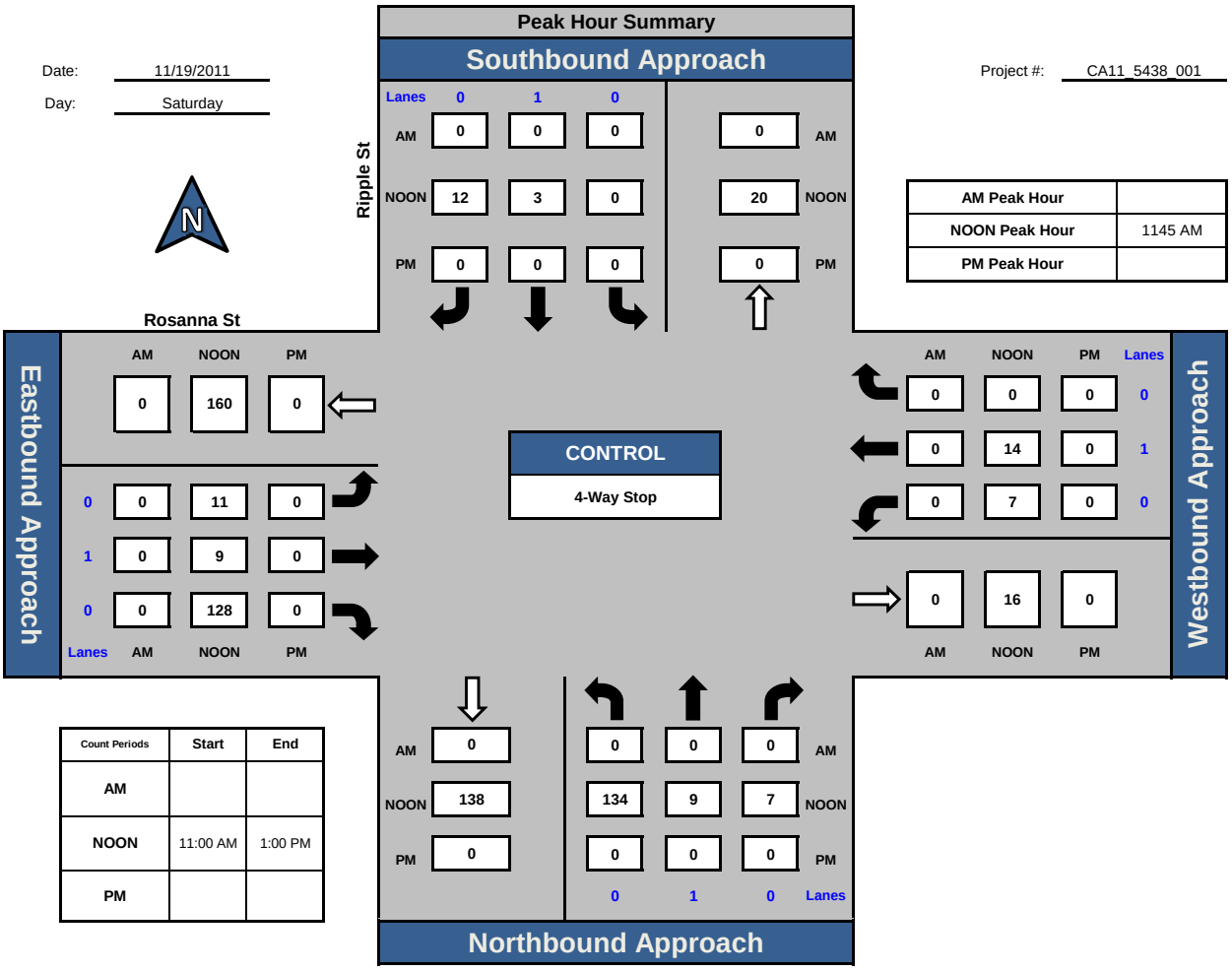
National Data & Surveying Services

Ripple St and Rosanna St , City of Los Angeles

Date: 11/19/2011

Day: Saturday

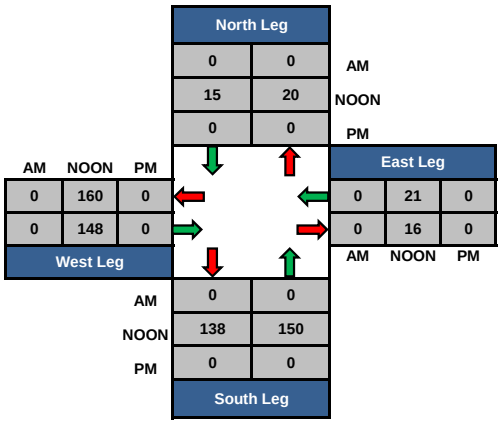
Project #: CA11_5438_001



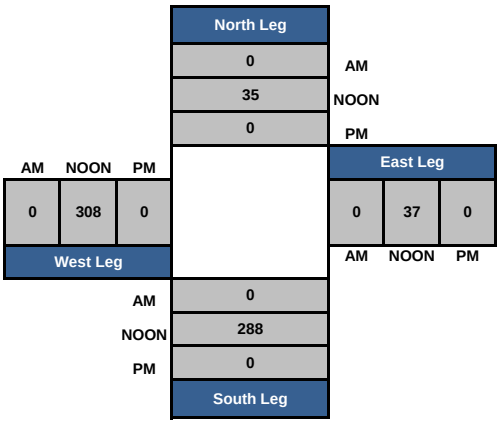
AM Peak Hour	
NOON Peak Hour	1145 AM
PM Peak Hour	

Count Periods	Start	End
AM		
NOON	11:00 AM	1:00 PM
PM		

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

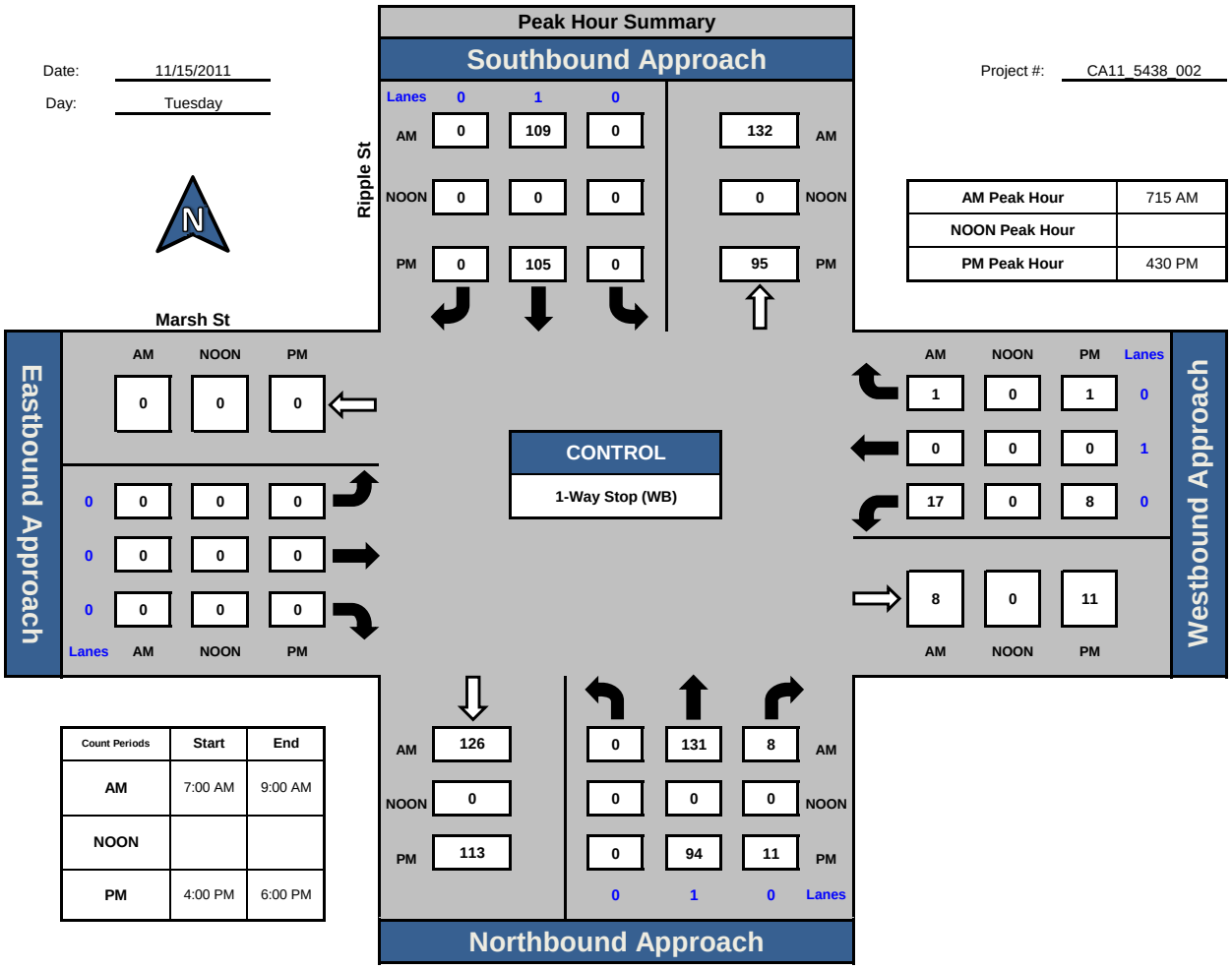
National Data & Surveying Services

Ripple St and Marsh St , City of Los Angeles

Date: 11/15/2011

Day: Tuesday

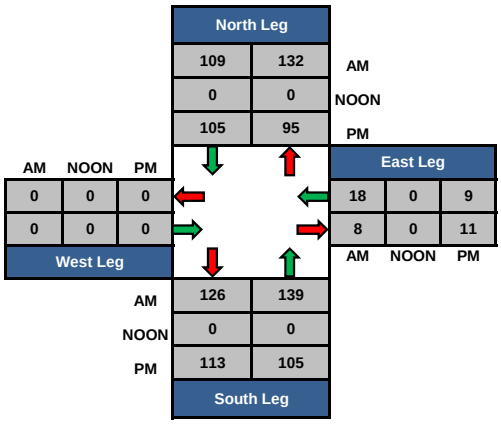
Project #: CA11_5438_002



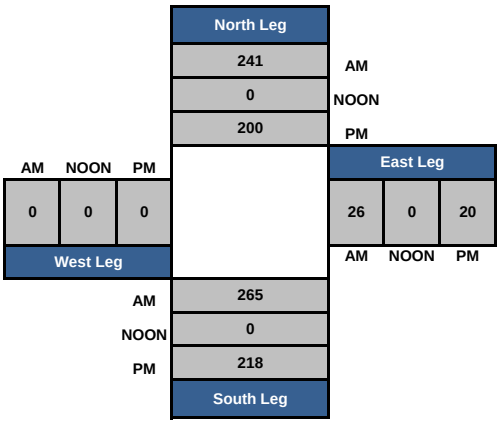
AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	430 PM

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

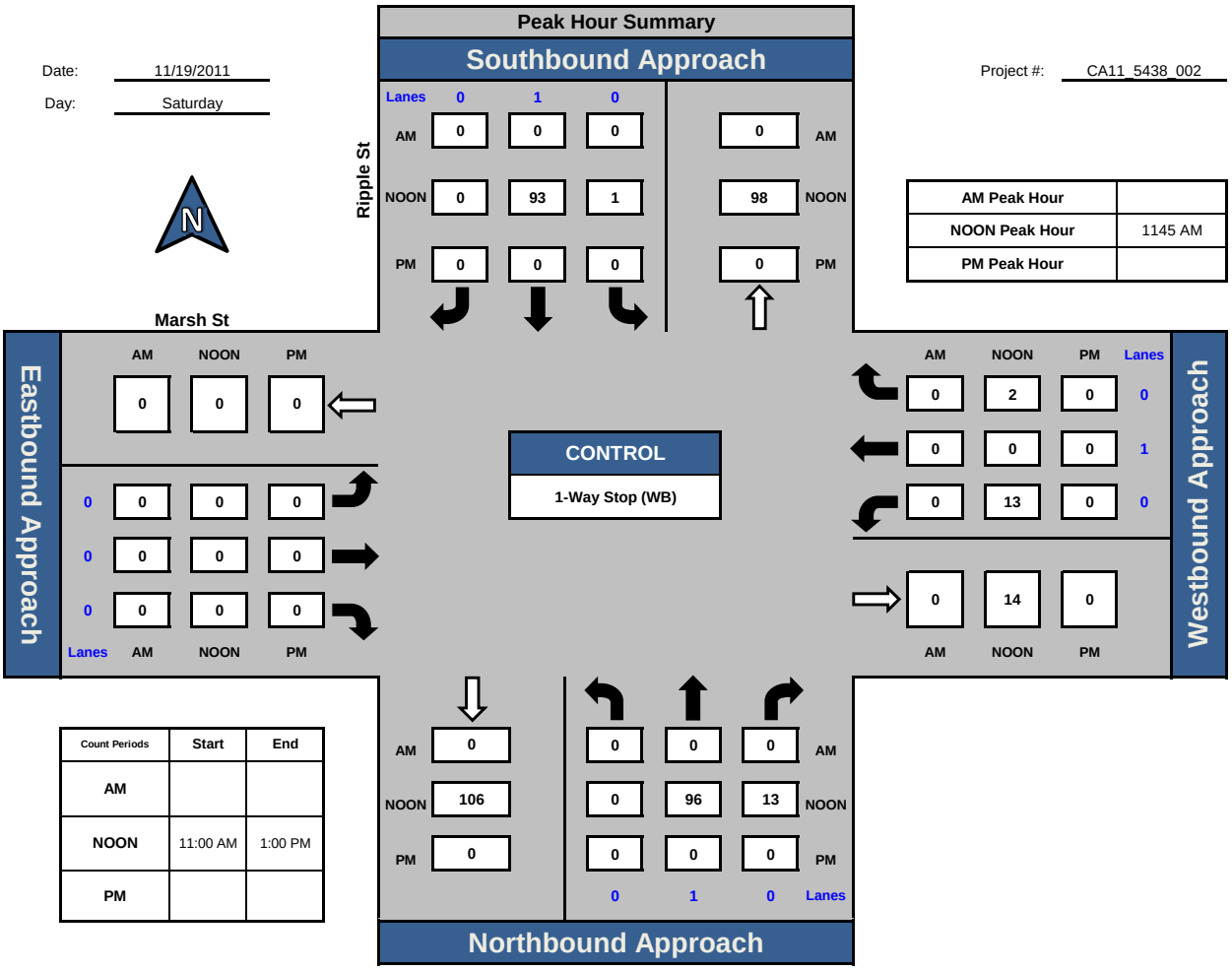
National Data & Surveying Services

Ripple St and Marsh St , City of Los Angeles

Date: 11/19/2011

Day: Saturday

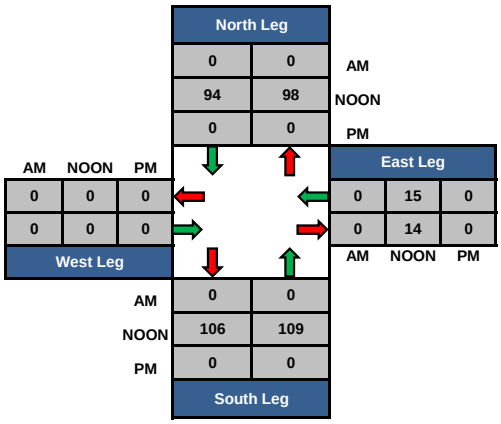
Project #: CA11_5438_002



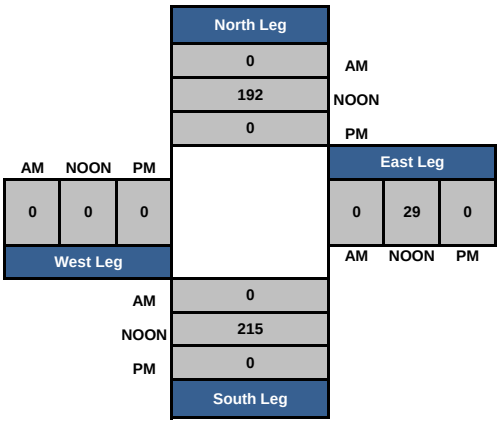
AM Peak Hour	
NOON Peak Hour	1145 AM
PM Peak Hour	

Count Periods	Start	End
AM		
NOON	11:00 AM	1:00 PM
PM		

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

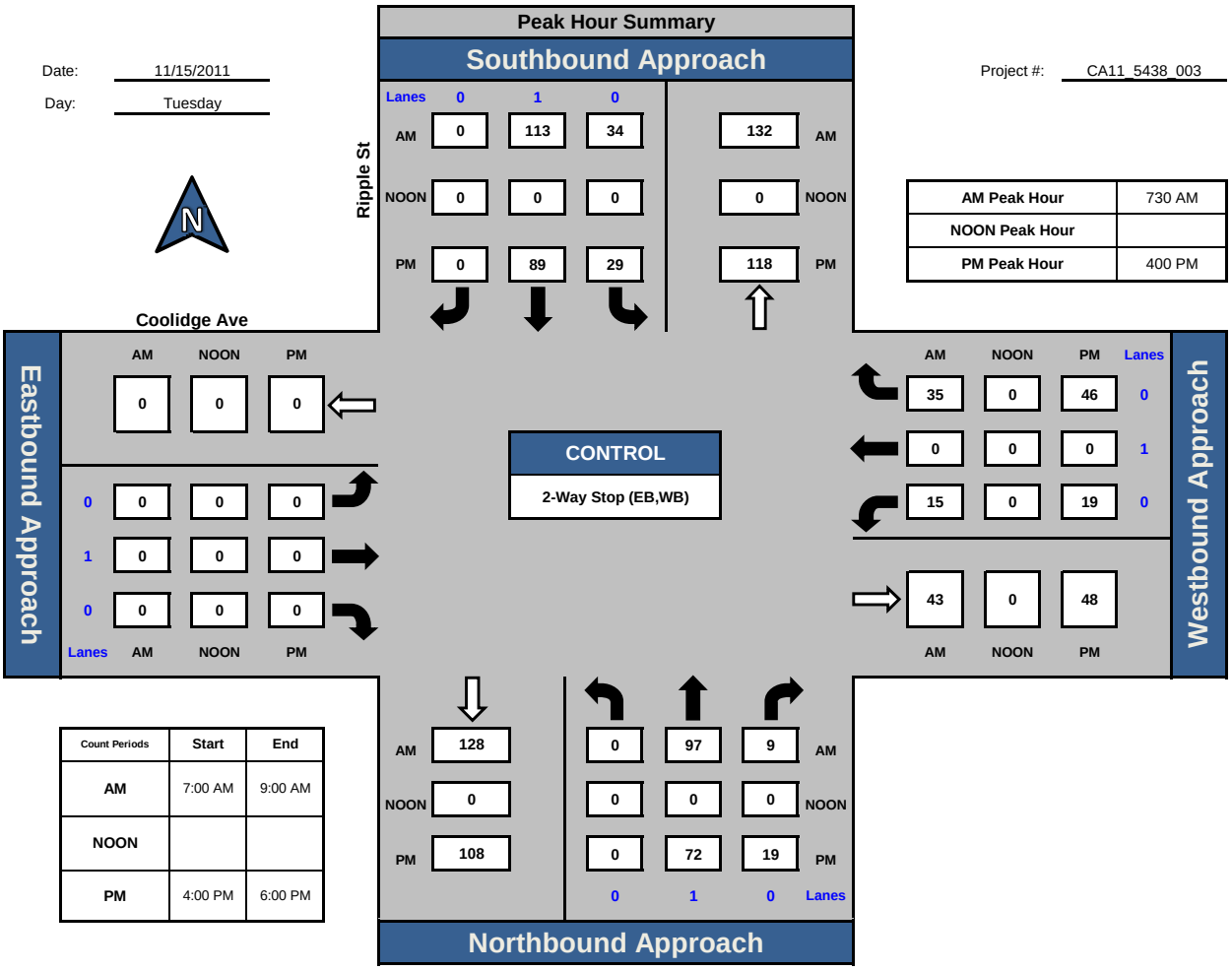
National Data & Surveying Services

Ripple St and Coolidge Ave , City of Los Angeles

Date: 11/15/2011

Day: Tuesday

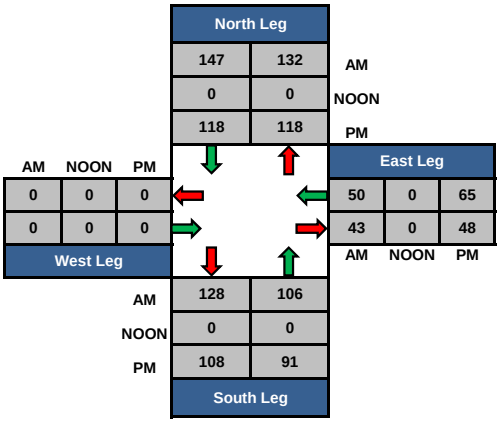
Project #: CA11_5438_003



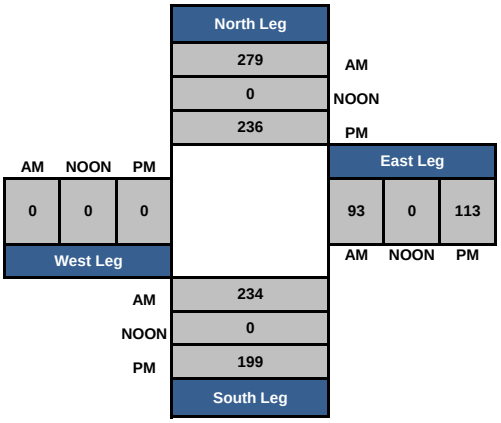
AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	400 PM

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Ripple St and Coolidge Ave , City of Los Angeles

Date: 11/19/2011

Day: Saturday

Project #: CA11_5438_003

AM Peak Hour	
NOON Peak Hour	1145 AM
PM Peak Hour	

Peak Hour Summary

Southbound Approach

Lanes	0	1	0		
AM	0	0	0	0	AM
NOON	1	88	28	120	NOON
PM	0	0	0	0	PM

Ripple St

Coolidge Ave

Eastbound Approach

	AM	NOON	PM
	0	2	0
0	0	1	0
1	0	0	0
0	0	1	0
Lanes	AM	NOON	PM

CONTROL

2-Way Stop (EB,WB)

Westbound Approach

	AM	NOON	PM	Lanes
	0	45	0	0
	0	0	0	1
	0	12	0	0
	0	47	0	
	AM	NOON	PM	

Count Periods	Start	End
AM		
NOON	11:00 AM	1:00 PM
PM		

Northbound Approach

AM	0	0	0	0	AM
NOON	101	1	74	19	NOON
PM	0	0	0	0	PM
		0	1	0	Lanes

Total Ins & Outs

North Leg	
0	0
117	120
0	0

AM NOON PM

West Leg		
0	2	0
0	2	0

AM NOON PM

East Leg		
0	57	0
0	47	0

AM NOON PM

South Leg	
0	0
101	94
0	0

AM NOON PM

Total Volume Per Leg

North Leg
0
237
0

AM NOON PM

West Leg		
0	4	0

AM NOON PM

East Leg		
0	104	0

AM NOON PM

South Leg
0
195
0

AM NOON PM

ITM Peak Hour Summary

Prepared by:

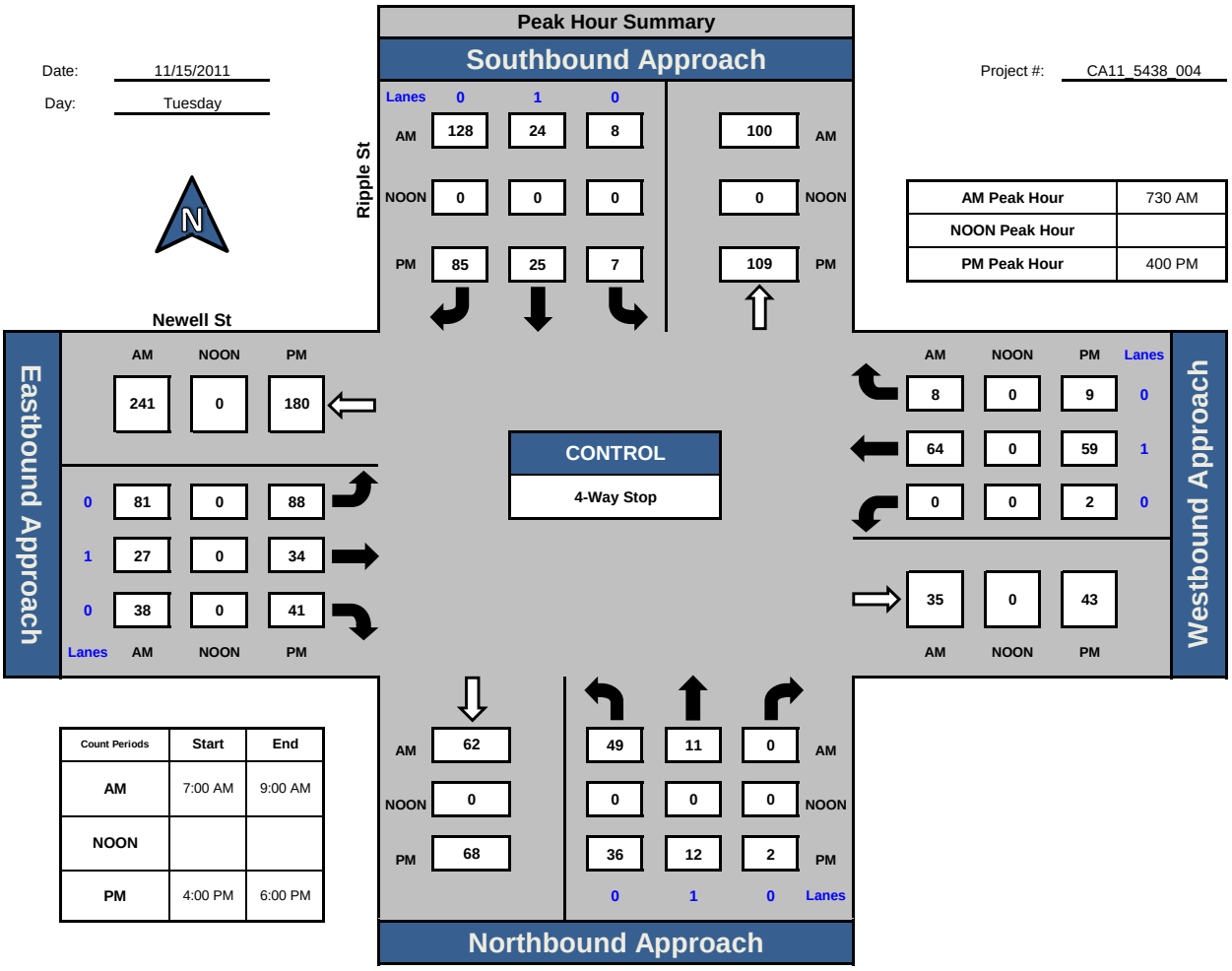
National Data & Surveying Services

Ripple St and Newell St , City of Los Angeles

Date: 11/15/2011

Day: Tuesday

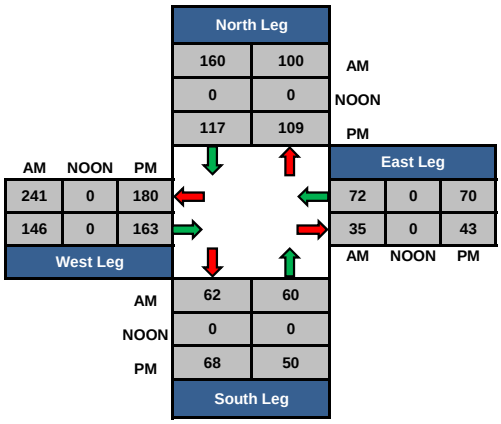
Project #: CA11_5438_004



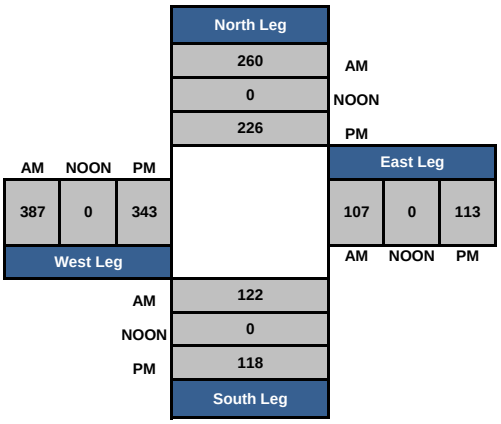
AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	400 PM

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

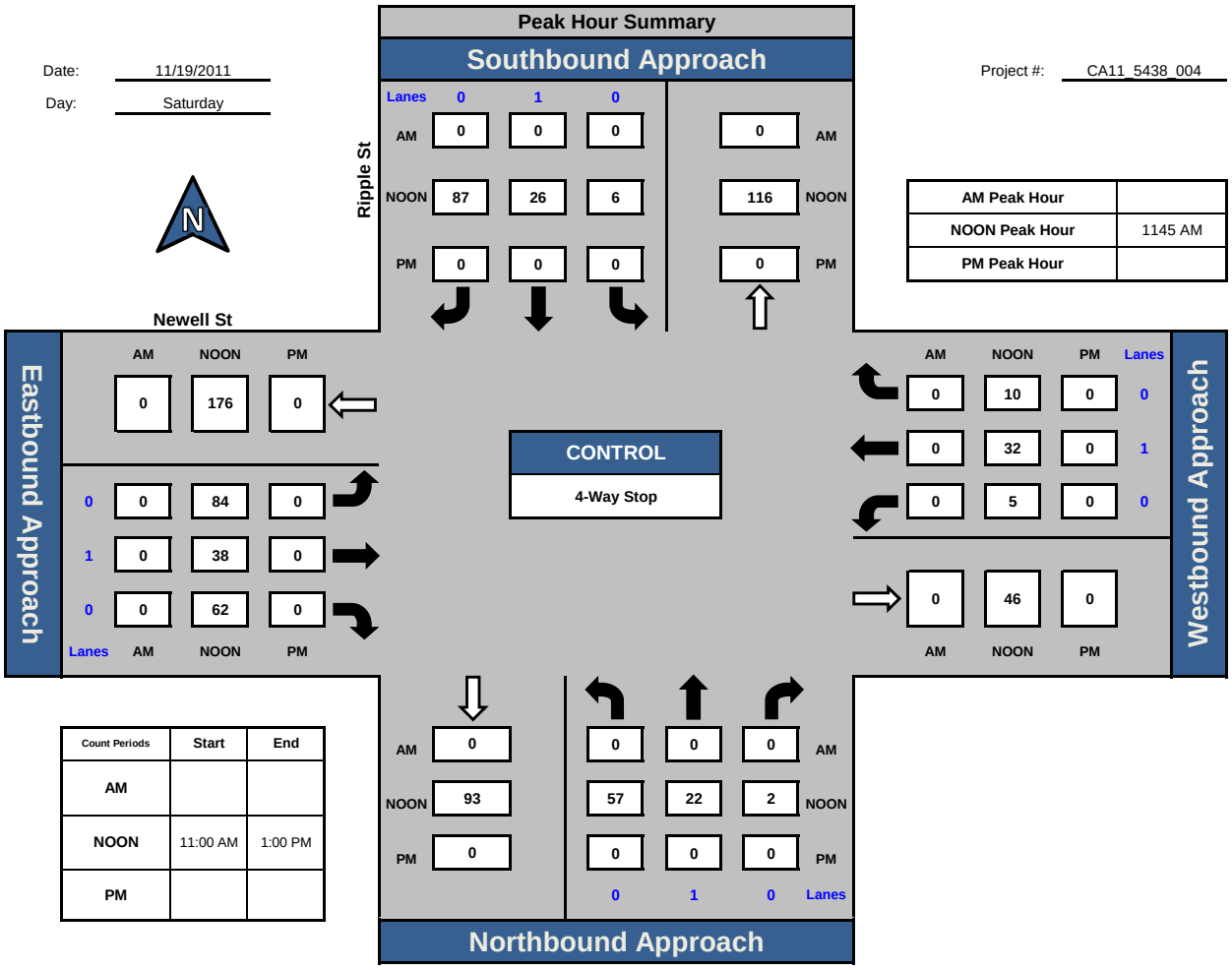
National Data & Surveying Services

Ripple St and Newell St , City of Los Angeles

Date: 11/19/2011

Day: Saturday

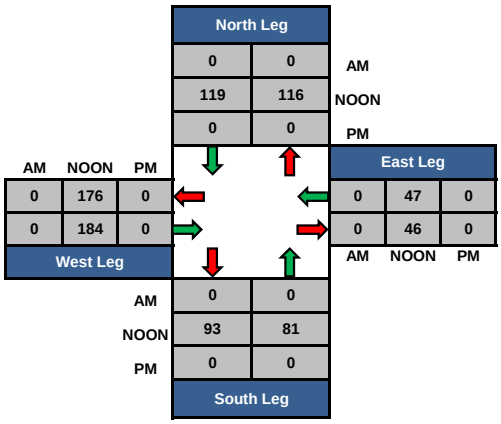
Project #: CA11_5438_004



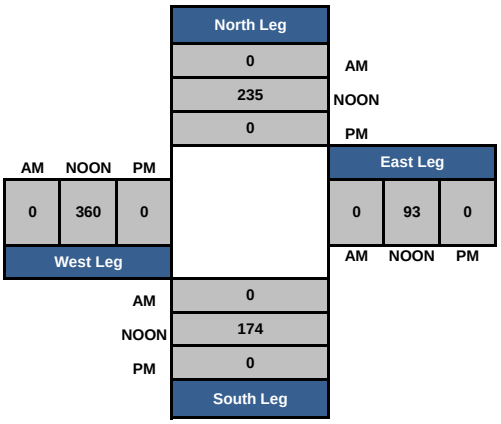
AM Peak Hour	
NOON Peak Hour	1145 AM
PM Peak Hour	

Count Periods	Start	End
AM		
NOON	11:00 AM	1:00 PM
PM		

Total Ins & Outs



Total Volume Per Leg



Prepared by NDS/ATD

VOLUME

Glenenden St between Ripple St & proposed part exit

Day: Tuesday
Date: 11/15/2011

City: Los Angeles
Project #: CA11_5439_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	104	110	214

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			0		1		1		12:00			1		2		3	
00:15			0		0		0		12:15			2		1		3	
00:30			0		0		0		12:30			1		2		3	
00:45			1	1	0	1	1	2	12:45			1	5	2	7	3	12
01:00			0		0		0		13:00			1		2		3	
01:15			0		0		0		13:15			1		4		5	
01:30			0		0		0		13:30			3		1		4	
01:45			0		0		0		13:45			2	7	1	8	3	15
02:00			0		0		0		14:00			3		0		3	
02:15			0		0		0		14:15			1		1		2	
02:30			0		1		1		14:30			1		1		2	
02:45			0		0	1	0	1	14:45			0	5	1	3	1	8
03:00			0		0		0		15:00			0		0		0	
03:15			0		0		0		15:15			0		0		0	
03:30			0		1		1		15:30			2		3		5	
03:45			1	1	1	2	2	3	15:45			7	9	4	7	11	16
04:00			0		0		0		16:00			3		2		5	
04:15			0		0		0		16:15			3		4		7	
04:30			0		0		0		16:30			1		0		1	
04:45			0		0		0		16:45			1	8	5	11	6	19
05:00			0		0		0		17:00			3		1		4	
05:15			0		0		0		17:15			3		2		5	
05:30			0		0		0		17:30			2		3		5	
05:45			0		1	1	1	1	17:45			3	11	0	6	3	17
06:00			0		0		0		18:00			2		3		5	
06:15			0		2		2		18:15			2		0		2	
06:30			0		1		1		18:30			2		3		5	
06:45			2	2	2	5	4	7	18:45			2	8	0	6	2	14
07:00			0		2		2		19:00			2		0		2	
07:15			2		1		3		19:15			1		0		1	
07:30			1		6		7		19:30			1		2		3	
07:45			0	3	1	10	1	13	19:45			1	5	2	4	3	9
08:00			2		4		6		20:00			2		0		2	
08:15			3		4		7		20:15			2		4		6	
08:30			1		1		2		20:30			1		2		3	
08:45			1	7	1	10	2	17	20:45			0	5	1	7	1	12
09:00			1		1		2		21:00			3		2		5	
09:15			2		3		5		21:15			2		0		2	
09:30			0		1		1		21:30			0		0		0	
09:45			0	3	0	5	0	8	21:45			1	6	0	2	1	8
10:00			2		0		2		22:00			1		2		3	
10:15			0		2		2		22:15			0		1		1	
10:30			1		1		2		22:30			1		1		2	
10:45			3	6	2	5	5	11	22:45			0	2	0	4	0	6
11:00			2		2		4		23:00			0		0		0	
11:15			1		0		1		23:15			1		0		1	
11:30			0		1		1		23:30			2		0		2	
11:45			2	5	1	4	3	9	23:45			2	5	1	1	3	6
TOTALS				28		44		**72**	**TOTALS**				76		66		**142**
SPLIT %				38.9%		61.1%		**33.6%**	**SPLIT %**				53.5%		46.5%		**66.4%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	104	110	214

AM Peak Hour			08:00	07:30	**07:30**	**PM Peak Hour**			15:30	15:30	**15:30**
AM Pk Volume			7	15	**21**	**PM Pk Volume**			15	13	**28**
Pk Hr Factor			0.583	0.625	**0.750**	**Pk Hr Factor**			0.536	0.813	**0.636**
7 - 9 Volume	0	0	10	20	**30**	**4 - 6 Volume**	0	0	19	17	**36**
7 - 9 Peak Hour			08:00	07:30	**07:30**	**4 - 6 Peak Hour**			17:00	16:00	**16:45**
7 - 9 Pk Volume	0	0	7	15	**21**	**4 - 6 Pk Volume**	0	0	11	11	**20**
Pk Hr Factor	0.000	0.000	0.583	0.625	**0.750**	**Pk Hr Factor**	0.000	0.000	0.917	0.550	**0.833**

Prepared by NDS/ATD

VOLUME

Glenenden St between Ripple St & proposed part exit

Day: Wednesday
Date: 11/16/2011

City: Los Angeles
Project #: CA11_5439_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	96	101	197

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			0		1		1		12:00			1		2		3	
00:15			0		0		0		12:15			0		0		0	
00:30			0		0		0		12:30			3		1		4	
00:45			0		0	1	0	1	12:45			2	6	2	5	4	11
01:00			1		0		1		13:00			1		0		1	
01:15			0		0		0		13:15			1		0		1	
01:30			0		0		0		13:30			2		2		4	
01:45			0	1	0		0	1	13:45			1	5	2	4	3	9
02:00			0		0		0		14:00			2		3		5	
02:15			0		0		0		14:15			3		1		4	
02:30			0		0		0		14:30			0		2		2	
02:45			0		0		0		14:45			2	7	1	7	3	14
03:00			0		0		0		15:00			1		1		2	
03:15			0		0		0		15:15			2		1		3	
03:30			0		1		1		15:30			5		3		8	
03:45			1	1	1	2	2	3	15:45			2	10	1	6	3	16
04:00			0		0		0		16:00			4		1		5	
04:15			1		0		1		16:15			3		2		5	
04:30			0		0		0		16:30			2		1		3	
04:45			0	1	0		0	1	16:45			4	13	1	5	5	18
05:00			0		0		0		17:00			2		2		4	
05:15			0		0		0		17:15			0		0		0	
05:30			0		0		0		17:30			0		1		1	
05:45			0		1	1	1	1	17:45			1	3	3	6	4	9
06:00			1		2		3		18:00			2		0		2	
06:15			0		2		2		18:15			3		2		5	
06:30			1		1		2		18:30			2		3		5	
06:45			2	4	2	7	4	11	18:45			0	7	0	5	0	12
07:00			0		2		2		19:00			2		0		2	
07:15			0		1		1		19:15			1		0		1	
07:30			3		4		7		19:30			1		2		3	
07:45			1	4	6	13	7	17	19:45			0	4	0	2	0	6
08:00			2		2		4		20:00			1		0		1	
08:15			0		2		2		20:15			2		0		2	
08:30			2		1		3		20:30			0		1		1	
08:45			1	5	0	5	1	10	20:45			2	5	1	2	3	7
09:00			1		0		1		21:00			0		3		3	
09:15			0		2		2		21:15			0		0		0	
09:30			0		2		2		21:30			0		0		0	
09:45			0	1	0	4	0	5	21:45			3	3	0	3	3	6
10:00			0		0		0		22:00			2		0		2	
10:15			3		2		5		22:15			0		1		1	
10:30			2		2		4		22:30			0		0		0	
10:45			1	6	4	8	5	14	22:45			0	2	2	3	2	5
11:00			1		3		4		23:00			0		0		0	
11:15			0		1		1		23:15			0		1		1	
11:30			1		4		5		23:30			1		0		1	
11:45			4	6	3	11	7	17	23:45			1	2	0	1	1	3
TOTALS				29		52		81	TOTALS				67		49		116
SPLIT %				35.8%		64.2%		41.1%	SPLIT %				57.8%		42.2%		58.9%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	96	101	197

AM Peak Hour			11:45	07:30	07:30	PM Peak Hour			15:30	13:30	15:30
AM Pk Volume			8	14	20	PM Pk Volume			14	8	21
Pk Hr Factor			0.500	0.583	0.714	Pk Hr Factor			0.700	0.667	0.656
7 - 9 Volume	0	0	9	18	27	4 - 6 Volume	0	0	16	11	27
7 - 9 Peak Hour			07:15	07:30	07:30	4 - 6 Peak Hour			16:00	16:15	16:00
7 - 9 Pk Volume	0	0	6	14	20	4 - 6 Pk Volume	0	0	13	6	18
Pk Hr Factor	0.000	0.000	0.500	0.583	0.714	Pk Hr Factor	0.000	0.000	0.813	0.750	0.900

Prepared by NDS/ATD

VOLUME

Glenenden St between Ripple St & proposed part exit

Day: Thursday
Date: 11/17/2011

City: Los Angeles
Project #: CA11_5439_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	89	97	186

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			2		0		2		12:00			0		1		1	
00:15			1		0		1		12:15			1		2		3	
00:30			0		0		0		12:30			2		2		4	
00:45			0	3	0		0	3	12:45			2	5	1	6	3	11
01:00			0		0		0		13:00			1		0		1	
01:15			0		0		0		13:15			2		1		3	
01:30			0		0		0		13:30			2		1		3	
01:45			0		0		0		13:45			3	8	2	4	5	12
02:00			0		0		0		14:00			1		2		3	
02:15			0		0		0		14:15			1		1		2	
02:30			0		0		0		14:30			0		3		3	
02:45			0		0		0		14:45			2	4	2	8	4	12
03:00			0		0		0		15:00			1		1		2	
03:15			0		0		0		15:15			1		0		1	
03:30			0		1		1		15:30			3		1		4	
03:45			0		0	1	0	1	15:45			1	6	2	4	3	10
04:00			1		1		2		16:00			4		1		5	
04:15			0		0		0		16:15			2		1		3	
04:30			0		0		0		16:30			3		2		5	
04:45			1	2	0	1	1	3	16:45			3	12	1	5	4	17
05:00			0		0		0		17:00			1		0		1	
05:15			0		0		0		17:15			0		1		1	
05:30			0		1		1		17:30			1		2		3	
05:45			0		0	1	0	1	17:45			1	3	2	5	3	8
06:00			0		2		2		18:00			2		1		3	
06:15			1		2		3		18:15			2		2		4	
06:30			2		1		3		18:30			1		1		2	
06:45			1	4	1	6	2	10	18:45			1	6	1	5	2	11
07:00			1		4		5		19:00			0		0		0	
07:15			2		0		2		19:15			1		0		1	
07:30			1		6		7		19:30			2		1		3	
07:45			1	5	4	14	5	19	19:45			1	4	1	2	2	6
08:00			1		4		5		20:00			0		0		0	
08:15			0		1		1		20:15			1		0		1	
08:30			2		0		2		20:30			0		1		1	
08:45			2	5	1	6	3	11	20:45			1	2	2	3	3	5
09:00			0		2		2		21:00			1		1		2	
09:15			0		2		2		21:15			0		0		0	
09:30			1		2		3		21:30			0		0		0	
09:45			1	2	2	8	3	10	21:45			1	2	0	1	1	3
10:00			1		1		2		22:00			1		1		2	
10:15			1		2		3		22:15			3		1		4	
10:30			0		2		2		22:30			1		0		1	
10:45			1	3	1	6	2	9	22:45			1	6	1	3	2	9
11:00			0		2		2		23:00			0		0		0	
11:15			1		2		3		23:15			1		0		1	
11:30			2		1		3		23:30			1		0		1	
11:45			2	5	3	8	5	13	23:45			0	2	0		0	2
TOTALS				29		51		**80**	**TOTALS**				60		46		**106**
SPLIT %				36.3%		63.8%		**43.0%**	**SPLIT %**				56.6%		43.4%		**57.0%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	89	97	186

AM Peak Hour			06:30	07:30	**07:00**		**PM Peak Hour**			16:00	13:45	**16:00**
AM Pk Volume			6	15	**19**		**PM Pk Volume**			12	8	**17**
Pk Hr Factor			0.750	0.625	**0.679**		**Pk Hr Factor**			0.750	0.667	**0.850**
7 - 9 Volume	0	0	10	20	**30**		**4 - 6 Volume**	0	0	15	10	**25**
7 - 9 Peak Hour			07:00	07:30	**07:00**		**4 - 6 Peak Hour**			16:00	16:00	**16:00**
7 - 9 Pk Volume	0	0	5	15	**19**		**4 - 6 Pk Volume**	0	0	12	5	**17**
Pk Hr Factor	0.000	0.000	0.625	0.625	**0.679**		**Pk Hr Factor**	0.000	0.000	0.750	0.625	**0.850**

Prepared by NDS/ATD

VOLUME

Rosanna St between Ripple St & proposed park entrance/exit

Day: Tuesday
Date: 11/15/2011

City: Los Angeles
Project #: CA11_5439_002

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	192	177	369

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			3		1		4		12:00			3		1		4	
00:15			1		0		1		12:15			5		6		11	
00:30			0		0		0		12:30			3		1		4	
00:45			0	4	0	1	0	5	12:45			2	13	0	8	2	21
01:00			0		0		0		13:00			2		2		4	
01:15			0		0		0		13:15			3		0		3	
01:30			0		0		0		13:30			2		0		2	
01:45			0		0		0		13:45			1	8	5	7	6	15
02:00			1		0		1		14:00			6		3		9	
02:15			0		0		0		14:15			3		3		6	
02:30			1		0		1		14:30			4		4		8	
02:45			0	2	0		0	2	14:45			4	17	3	13	7	30
03:00			0		0		0		15:00			6		5		11	
03:15			0		0		0		15:15			5		3		8	
03:30			0		0		0		15:30			5		4		9	
03:45			1	1	1	1	2	2	15:45			7	23	3	15	10	38
04:00			1		0		1		16:00			3		1		4	
04:15			0		1		1		16:15			3		6		9	
04:30			0		0		0		16:30			5		6		11	
04:45			0	1	0	1	0	2	16:45			5	16	3	16	8	32
05:00			0		1		1		17:00			3		4		7	
05:15			0		1		1		17:15			4		2		6	
05:30			0		0		0		17:30			6		2		8	
05:45			0		1	3	1	3	17:45			3	16	2	10	5	26
06:00			0		1		1		18:00			3		1		4	
06:15			0		1		1		18:15			3		2		5	
06:30			1		3		4		18:30			2		5		7	
06:45			0	1	2	7	2	8	18:45			2	10	4	12	6	22
07:00			0		2		2		19:00			1		4		5	
07:15			0		4		4		19:15			1		2		3	
07:30			5		7		12		19:30			4		3		7	
07:45			1	6	3	16	4	22	19:45			6	12	2	11	8	23
08:00			3		3		6		20:00			2		1		3	
08:15			5		5		10		20:15			1		1		2	
08:30			2		5		7		20:30			1		0		1	
08:45			1	11	1	14	2	25	20:45			3	7	0	2	3	9
09:00			2		2		4		21:00			2		1		3	
09:15			1		0		1		21:15			3		3		6	
09:30			1		4		5		21:30			3		3		6	
09:45			1	5	0	6	1	11	21:45			1	9	0	7	1	16
10:00			4		1		5		22:00			2		1		3	
10:15			1		2		3		22:15			1		0		1	
10:30			0		4		4		22:30			0		0		0	
10:45			4	9	3	10	7	19	22:45			1	4	2	3	3	7
11:00			4		2		6		23:00			4		0		4	
11:15			2		5		7		23:15			1		0		1	
11:30			3		5		8		23:30			0		0		0	
11:45			2	11	2	14	4	25	23:45			1	6	0		1	6
TOTALS				51		73		**124**	**TOTALS**				141		104		**245**
SPLIT %				41.1%		58.9%		**33.6%**	**SPLIT %**				57.6%		42.4%		**66.4%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	192	177	369

AM Peak Hour				07:30		07:30		**07:30**	**PM Peak Hour**				15:00		16:15		**15:00**
AM Pk Volume				14		18		**32**	**PM Pk Volume**				23		19		**38**
Pk Hr Factor				0.700		0.643		**0.667**	**Pk Hr Factor**				0.821		0.792		**0.864**
7 - 9 Volume	0	0		17		30		**47**	**4 - 6 Volume**	0	0		32		26		**58**
7 - 9 Peak Hour				07:30		07:30		**07:30**	**4 - 6 Peak Hour**				16:45		16:15		**16:15**
7 - 9 Pk Volume	0	0		14		18		**32**	**4 - 6 Pk Volume**	0	0		18		19		**35**
Pk Hr Factor	0.000	0.000		0.700		0.643		**0.667**	**Pk Hr Factor**	0.000	0.000		0.750		0.792		**0.795**

Prepared by NDS/ATD

VOLUME

Rosanna St between Ripple St & proposed park entrance/exit

Day: Wednesday
Date: 11/16/2011

City: Los Angeles
Project #: CA11_5439_002

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	171	168	339

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			0		0		0		12:00			5		1		6	
00:15			1		1		2		12:15			3		3		6	
00:30			0		0		0		12:30			2		3		5	
00:45			0	1	0	1	0	2	12:45			4	14	3	10	7	24
01:00			0		0		0		13:00			1		2		3	
01:15			1		0		1		13:15			2		2		4	
01:30			1		0		1		13:30			0		1		1	
01:45			0	2	1	1	1	3	13:45			3	6	2	7	5	13
02:00			0		0		0		14:00			2		3		5	
02:15			0		0		0		14:15			4		5		9	
02:30			1		0		1		14:30			5		3		8	
02:45			0	1	0		0	1	14:45			3	14	4	15	7	29
03:00			0		0		0		15:00			0		2		2	
03:15			0		0		0		15:15			5		3		8	
03:30			0		0		0		15:30			1		3		4	
03:45			1	1	0		1	1	15:45			6	12	1	9	7	21
04:00			0		0		0		16:00			4		4		8	
04:15			0		0		0		16:15			2		1		3	
04:30			0		0		0		16:30			3		3		6	
04:45			0		0		0		16:45			2	11	2	10	4	21
05:00			0		0		0		17:00			5		5		10	
05:15			0		1		1		17:15			8		5		13	
05:30			0		0		0		17:30			2		1		3	
05:45			0		0	1	0	1	17:45			2	17	4	15	6	32
06:00			0		2		2		18:00			1		0		1	
06:15			1		2		3		18:15			4		2		6	
06:30			1		3		4		18:30			3		1		4	
06:45			1	3	5	12	6	15	18:45			0	8	1	4	1	12
07:00			1		1		2		19:00			3		5		8	
07:15			1		5		6		19:15			3		0		3	
07:30			3		4		7		19:30			6		2		8	
07:45			1	6	6	16	7	22	19:45			3	15	3	10	6	25
08:00			4		4		8		20:00			3		1		4	
08:15			2		2		4		20:15			2		2		4	
08:30			2		4		6		20:30			0		0		0	
08:45			1	9	2	12	3	21	20:45			4	9	1	4	5	13
09:00			0		3		3		21:00			3		3		6	
09:15			2		1		3		21:15			1		0		1	
09:30			0		0		0		21:30			1		1		2	
09:45			1	3	0	4	1	7	21:45			0	5	2	6	2	11
10:00			1		1		2		22:00			3		1		4	
10:15			6		2		8		22:15			0		0		0	
10:30			2		5		7		22:30			1		2		3	
10:45			2	11	3	11	5	22	22:45			4	8	3	6	7	14
11:00			2		5		7		23:00			3		1		4	
11:15			2		3		5		23:15			2		0		2	
11:30			3		2		5		23:30			1		0		1	
11:45			2	9	3	13	5	22	23:45			0	6	0	1	0	7
TOTALS				46		71		**117**	**TOTALS**				125		97		**222**
SPLIT %				39.3%		60.7%		**34.5%**	**SPLIT %**				56.3%		43.7%		**65.5%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	171	168	339

AM Peak Hour			11:30	07:15	**07:15**	**PM Peak Hour**			16:30	14:00	**16:30**
AM Pk Volume			13	19	**28**	**PM Pk Volume**			18	15	**33**
Pk Hr Factor			0.650	0.792	**0.875**	**Pk Hr Factor**			0.563	0.750	**0.635**
7 - 9 Volume	0	0	15	28	**43**	**4 - 6 Volume**	0	0	28	25	**53**
7 - 9 Peak Hour			07:30	07:15	**07:15**	**4 - 6 Peak Hour**			16:30	16:30	**16:30**
7 - 9 Pk Volume	0	0	10	19	**28**	**4 - 6 Pk Volume**	0	0	18	15	**33**
Pk Hr Factor	0.000	0.000	0.625	0.792	**0.875**	**Pk Hr Factor**	0.000	0.000	0.563	0.750	**0.635**

Prepared by NDS/ATD

VOLUME

Rosanna St between Ripple St & proposed park entrance/exit

Day: Thursday
Date: 11/17/2011

City: Los Angeles
Project #: CA11_5439_002

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	150	160	310

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00					1		0		1		12:00					4		1		5	
00:15					0		2		2		12:15					3		3		6	
00:30					0		0		0		12:30					2		2		4	
00:45					0	1	0	2	0	3	12:45					2	11	4	10	6	21
01:00					0		1		1		13:00					3		2		5	
01:15					0		0		0		13:15					1		1		2	
01:30					1		0		1		13:30					1		0		1	
01:45					1	2	0	1	1	3	13:45					2	7	1	4	3	11
02:00					1		1		2		14:00					3		3		6	
02:15					0		0		0		14:15					2		4		6	
02:30					0		0		0		14:30					4		5		9	
02:45					1	2	0	1	1	3	14:45					2	11	2	14	4	25
03:00					0		0		0		15:00					1		1		2	
03:15					0		0		0		15:15					3		3		6	
03:30					0		0		0		15:30					3		5		8	
03:45					0		0		0		15:45					2	9	3	12	5	21
04:00					1		1		2		16:00					2		2		4	
04:15					0		0		0		16:15					5		1		6	
04:30					1		0		1		16:30					2		3		5	
04:45					0	2	1	2	1	4	16:45					1	10	4	10	5	20
05:00					0		0		0		17:00					4		3		7	
05:15					0		1		1		17:15					6		2		8	
05:30					1		1		2		17:30					3		1		4	
05:45					1	2	1	3	2	5	17:45					2	15	1	7	3	22
06:00					0		2		2		18:00					1		2		3	
06:15					0		3		3		18:15					3		1		4	
06:30					2		4		6		18:30					1		0		1	
06:45					0	2	2	11	2	13	18:45					2	7	1	4	3	11
07:00					1		3		4		19:00					3		2		5	
07:15					2		4		6		19:15					1		2		3	
07:30					2		5		7		19:30					4		1		5	
07:45					0	5	5	17	5	22	19:45					4	12	2	7	6	19
08:00					2		4		6		20:00					2		2		4	
08:15					3		2		5		20:15					1		4		5	
08:30					1		3		4		20:30					2		3		5	
08:45					1	7	2	11	3	18	20:45					3	8	2	11	5	19
09:00					0		2		2		21:00					2		1		3	
09:15					1		0		1		21:15					1		0		1	
09:30					2		1		3		21:30					1		0		1	
09:45					1	4	1	4	2	8	21:45					2	6	1	2	3	8
10:00					1		0		1		22:00					1		2		3	
10:15					4		2		6		22:15					1		1		2	
10:30					2		4		6		22:30					1		1		2	
10:45					2	9	2	8	4	17	22:45					2	5	0	4	2	9
11:00					1		3		4		23:00					2		1		3	
11:15					3		4		7		23:15					1		0		1	
11:30					3		3		6		23:30					0		1		1	
11:45					1	8	2	12	3	20	23:45					2	5	1	3	3	8
TOTALS						44		72		**116**	**TOTALS**						106		88		**194**
SPLIT %						37.9%		62.1%		**37.4%**	**SPLIT %**						54.6%		45.4%		**62.6%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	150	160	310

AM Peak Hour			11:15	07:15	**07:15**	**PM Peak Hour**			17:00	14:00	**14:00**
AM Pk Volume			11	18	**24**	**PM Pk Volume**			15	14	**25**
Pk Hr Factor			0.688	0.900	**0.857**	**Pk Hr Factor**			0.625	0.700	**0.694**
7 - 9 Volume	0	0	12	28	**40**	**4 - 6 Volume**	0	0	25	17	**42**
7 - 9 Peak Hour			07:30	07:15	**07:15**	**4 - 6 Peak Hour**			17:00	16:30	**16:30**
7 - 9 Pk Volume	0	0	7	18	**24**	**4 - 6 Pk Volume**	0	0	15	12	**25**
Pk Hr Factor	0.000	0.000	0.583	0.900	**0.857**	**Pk Hr Factor**	0.000	0.000	0.625	0.750	**0.781**

Prepared by NDS/ATD

VOLUME

Ripple St S/o Rossanna St

Day: Tuesday
Date: 11/15/2011

City: Los Angeles
Project #: CA11_5439_003

DAILY TOTALS	NB	SB	EB	WB	Total
	1,868	2,009	0	0	3,877

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	3		5				8		12:00	32		22				54	
00:15	1		3				4		12:15	29		32				61	
00:30	2		3				5		12:30	23		30				53	
00:45	0	6	3	14			3	20	12:45	28	112	31	115			59	227
01:00	0		2				2		13:00	47		26				73	
01:15	4		3				7		13:15	29		26				55	
01:30	0		0				0		13:30	29		34				63	
01:45	1	5	2	7			3	12	13:45	36	141	41	127			77	268
02:00	1		2				3		14:00	30		43				73	
02:15	1		0				1		14:15	34		30				64	
02:30	1		2				3		14:30	25		33				58	
02:45	1	4	4	8			5	12	14:45	31	120	35	141			66	261
03:00	2		0				2		15:00	30		32				62	
03:15	1		0				1		15:15	40		34				74	
03:30	2		0				2		15:30	24		43				67	
03:45	1	6	4	4			5	10	15:45	41	135	43	152			84	287
04:00	1		3				4		16:00	32		35				67	
04:15	1		4				5		16:15	37		30				67	
04:30	2		1				3		16:30	36		39				75	
04:45	4	8	0	8			4	16	16:45	48	153	37	141			85	294
05:00	8		5				13		17:00	36		35				71	
05:15	6		5				11		17:15	25		42				67	
05:30	5		3				8		17:30	32		35				67	
05:45	13	32	7	20			20	52	17:45	36	129	45	157			81	286
06:00	13		10				23		18:00	30		35				65	
06:15	11		11				22		18:15	37		25				62	
06:30	17		19				36		18:30	26		38				64	
06:45	28	69	32	72			60	141	18:45	29	122	44	142			73	264
07:00	37		30				67		19:00	31		37				68	
07:15	35		31				66		19:15	24		24				48	
07:30	65		38				103		19:30	28		28				56	
07:45	50	187	41	140			91	327	19:45	18	101	33	122			51	223
08:00	43		35				78		20:00	18		20				38	
08:15	28		35				63		20:15	10		22				32	
08:30	23		19				42		20:30	11		18				29	
08:45	32	126	9	98			41	224	20:45	5	44	17	77			22	121
09:00	24		20				44		21:00	19		20				39	
09:15	22		23				45		21:15	4		19				23	
09:30	25		24				49		21:30	4		22				26	
09:45	28	99	22	89			50	188	21:45	6	33	17	78			23	111
10:00	28		23				51		22:00	7		10				17	
10:15	22		25				47		22:15	4		19				23	
10:30	16		19				35		22:30	4		14				18	
10:45	20	86	21	88			41	174	22:45	4	19	11	54			15	73
11:00	29		20				49		23:00	3		9				12	
11:15	26		37				63		23:15	5		7				12	
11:30	37		33				70		23:30	3		10				13	
11:45	23	115	32	122			55	237	23:45	5	16	7	33			12	49
TOTALS		743		670				**1413**	**TOTALS**		1125		1339				**2464**
SPLIT %		52.6%		47.4%				**36.4%**	**SPLIT %**		45.7%		54.3%				**63.6%**

DAILY TOTALS	NB	SB	EB	WB	Total
	1,868	2,009	0	0	3,877

AM Peak Hour	07:15	07:30				**07:15**	**PM Peak Hour**	16:15	17:00				**16:15**
AM Pk Volume	193	149				**338**	**PM Pk Volume**	157	157				**298**
Pk Hr Factor	0.742	0.909				**0.820**	**Pk Hr Factor**	0.818	0.872				**0.876**
7 - 9 Volume	313	238	0	0		**551**	**4 - 6 Volume**	282	298	0	0		**580**
7 - 9 Peak Hour	07:15	07:30				**07:15**	**4 - 6 Peak Hour**	16:15	17:00				**16:15**
7 - 9 Pk Volume	193	149	0	0		**338**	**4 - 6 Pk Volume**	157	157	0	0		**298**
Pk Hr Factor	0.742	0.909	0.000	0.000		**0.820**	**Pk Hr Factor**	0.818	0.872	0.000	0.000		**0.876**

Prepared by NDS/ATD

VOLUME

Ripple St S/o Rossanna St

Day: Wednesday
Date: 11/16/2011

City: Los Angeles
Project #: CA11_5439_003

DAILY TOTALS	NB	SB	EB	WB	Total
	1,812	1,962	0	0	3,774

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	0		5				5		12:00	26		30				56	
00:15	1		2				3		12:15	25		37				62	
00:30	1		2				3		12:30	28		30				58	
00:45	1	3	4	13			5	16	12:45	30	109	24	121			54	230
01:00	2		5				7		13:00	28		19				47	
01:15	0		0				0		13:15	30		28				58	
01:30	2		1				3		13:30	31		24				55	
01:45	0	4	3	9			3	13	13:45	25	114	30	101			55	215
02:00	2		1				3		14:00	36		26				62	
02:15	0		1				1		14:15	38		32				70	
02:30	2		5				7		14:30	35		25				60	
02:45	3	7	1	8			4	15	14:45	23	132	33	116			56	248
03:00	1		1				2		15:00	29		34				63	
03:15	0		1				1		15:15	40		38				78	
03:30	2		0				2		15:30	29		39				68	
03:45	1	4	3	5			4	9	15:45	29	127	40	151			69	278
04:00	2		2				4		16:00	37		32				69	
04:15	3		3				6		16:15	35		38				73	
04:30	3		1				4		16:30	43		43				86	
04:45	6	14	3	9			9	23	16:45	31	146	34	147			65	293
05:00	4		1				5		17:00	34		36				70	
05:15	5		5				10		17:15	34		49				83	
05:30	8		7				15		17:30	38		42				80	
05:45	13	30	3	16			16	46	17:45	28	134	43	170			71	304
06:00	18		14				32		18:00	26		46				72	
06:15	13		14				27		18:15	25		31				56	
06:30	19		17				36		18:30	18		32				50	
06:45	29	79	37	82			66	161	18:45	25	94	29	138			54	232
07:00	29		26				55		19:00	20		32				52	
07:15	50		37				87		19:15	13		25				38	
07:30	48		38				86		19:30	17		25				42	
07:45	59	186	42	143			101	329	19:45	18	68	23	105			41	173
08:00	46		44				90		20:00	20		29				49	
08:15	24		29				53		20:15	13		23				36	
08:30	28		20				48		20:30	11		18				29	
08:45	32	130	19	112			51	242	20:45	5	49	24	94			29	143
09:00	14		28				42		21:00	10		10				20	
09:15	13		21				34		21:15	12		20				32	
09:30	20		22				42		21:30	11		20				31	
09:45	18	65	21	92			39	157	21:45	7	40	19	69			26	109
10:00	40		20				60		22:00	10		13				23	
10:15	28		28				56		22:15	3		12				15	
10:30	31		20				51		22:30	8		12				20	
10:45	35	134	24	92			59	226	22:45	3	24	8	45			11	69
11:00	29		31				60		23:00	4		10				14	
11:15	19		28				47		23:15	6		11				17	
11:30	17		16				33		23:30	2		6				8	
11:45	41	106	18	93			59	199	23:45	1	13	4	31			5	44
TOTALS		762		674				1436	TOTALS		1050		1288				2338
SPLIT %		53.1%		46.9%				38.0%	SPLIT %		44.9%		55.1%				62.0%

DAILY TOTALS	NB	SB	EB	WB	Total
	1,812	1,962	0	0	3,774

AM Peak Hour	07:15	07:15			07:15	PM Peak Hour	16:00	17:15			17:15
AM Pk Volume	203	161			364	PM Pk Volume	146	180			306
Pk Hr Factor	0.860	0.915			0.901	Pk Hr Factor	0.849	0.918			0.922
7 - 9 Volume	316	255	0	0	571	4 - 6 Volume	280	317	0	0	597
7 - 9 Peak Hour	07:15	07:15			07:15	4 - 6 Peak Hour	16:00	17:00			16:30
7 - 9 Pk Volume	203	161	0	0	364	4 - 6 Pk Volume	146	170	0	0	304
Pk Hr Factor	0.860	0.915	0.000	0.000	0.901	Pk Hr Factor	0.849	0.867	0.000	0.000	0.884

Prepared by NDS/ATD

VOLUME

Ripple St S/o Rossanna St

Day: Thursday
Date: 11/17/2011

City: Los Angeles
Project #: CA11_5439_003

DAILY TOTALS	NB	SB	EB	WB	Total
	2,049	2,029	0	0	4,078

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	3		5				8		12:00	43		33				76	
00:15	2		4				6		12:15	32		28				60	
00:30	4		1				5		12:30	20		30				50	
00:45	0	9	2	12			2	21	12:45	28	123	24	115			52	238
01:00	1		2				3		13:00	28		28				56	
01:15	0		0				0		13:15	36		28				64	
01:30	0		0				0		13:30	29		19				48	
01:45	0	1	0	2			0	3	13:45	22	115	17	92			39	207
02:00	4		0				4		14:00	34		27				61	
02:15	1		3				4		14:15	35		30				65	
02:30	3		2				5		14:30	42		40				82	
02:45	1	9	4	9			5	18	14:45	35	146	40	137			75	283
03:00	5		0				5		15:00	36		32				68	
03:15	2		0				2		15:15	46		49				95	
03:30	3		1				4		15:30	38		44				82	
03:45	1	11	0	1			1	12	15:45	44	164	39	164			83	328
04:00	2		3				5		16:00	43		33				76	
04:15	6		3				9		16:15	38		41				79	
04:30	4		1				5		16:30	23		24				47	
04:45	4	16	4	11			8	27	16:45	29	133	34	132			63	265
05:00	4		4				8		17:00	46		36				82	
05:15	7		3				10		17:15	47		41				88	
05:30	11		6				17		17:30	36		42				78	
05:45	14	36	6	19			20	55	17:45	31	160	37	156			68	316
06:00	12		6				18		18:00	31		34				65	
06:15	12		16				28		18:15	29		32				61	
06:30	20		19				39		18:30	19		34				53	
06:45	20	64	25	66			45	130	18:45	25	104	32	132			57	236
07:00	31		23				54		19:00	18		37				55	
07:15	47		30				77		19:15	22		32				54	
07:30	70		44				114		19:30	22		19				41	
07:45	62	210	45	142			107	352	19:45	17	79	30	118			47	197
08:00	42		40				82		20:00	19		25				44	
08:15	28		49				77		20:15	18		24				42	
08:30	25		25				50		20:30	16		15				31	
08:45	31	126	25	139			56	265	20:45	19	72	17	81			36	153
09:00	29		24				53		21:00	23		26				49	
09:15	19		34				53		21:15	14		24				38	
09:30	23		21				44		21:30	19		20				39	
09:45	32	103	25	104			57	207	21:45	18	74	18	88			36	162
10:00	22		27				49		22:00	8		23				31	
10:15	30		20				50		22:15	12		21				33	
10:30	37		36				73		22:30	12		9				21	
10:45	30	119	24	107			54	226	22:45	7	39	18	71			25	110
11:00	38		25				63		23:00	6		12				18	
11:15	25		23				48		23:15	8		4				12	
11:30	24		27				51		23:30	6		10				16	
11:45	26	113	26	101			52	214	23:45	3	23	4	30			7	53
TOTALS		817		713				**1530**	**TOTALS**		1232		1316				**2548**
SPLIT %		53.4%		46.6%				**37.5%**	**SPLIT %**		48.4%		51.6%				**62.5%**

DAILY TOTALS	NB	SB	EB	WB	Total
	2,049	2,029	0	0	4,078

AM Peak Hour	07:15	07:30				**07:15**	**PM Peak Hour**	15:15	14:45				**15:15**
AM Pk Volume	221	178				**380**	**PM Pk Volume**	171	165				**336**
Pk Hr Factor	0.789	0.908				**0.833**	**Pk Hr Factor**	0.929	0.842				**0.884**
7 - 9 Volume	336	281	0	0		**617**	**4 - 6 Volume**	293	288	0	0		**581**
7 - 9 Peak Hour	07:15	07:30				**07:15**	**4 - 6 Peak Hour**	17:00	17:00				**17:00**
7 - 9 Pk Volume	221	178	0	0		**380**	**4 - 6 Pk Volume**	160	156	0	0		**316**
Pk Hr Factor	0.789	0.908	0.000	0.000		**0.833**	**Pk Hr Factor**	0.851	0.929	0.000	0.000		**0.898**

APPENDIX B

Level of Service Analysis Worksheets

Level Of Service Computation Report
Circular 212 Operations Method (Base Volume Alternative)

Intersection #1 Ripple St/Rosanna St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.196
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	18	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	0	1	0	0	0	1! 0	0
Volume Module:												
Base Vol:	188	2	5	0	9	15	10	9	138	6	11	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	188	2	5	0	9	15	10	9	138	6	11	1
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:	188	2	5	0	9	15	10	9	138	6	11	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	188	2	5	0	9	15	10	9	138	6	11	1
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:	188	2	5	0	9	15	10	9	138	6	11	1
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
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:	0.96	0.01	0.03	0.00	0.38	0.62	0.06	0.06	0.88	0.33	0.61	0.06
Final Sat.:	1735	18	46	0	675	1125	115	103	1582	600	1100	100
Capacity Analysis Module:												
Vol/Sat:	0.11	0.11	0.11	0.00	0.01	0.01	0.09	0.09	0.09	0.01	0.01	0.01
Crit Moves:	****						****					

Level Of Service Computation Report
Circular 212 Operations Method (Base Volume Alternative)

Intersection #2 Ripple St/Marsh St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.087
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	16	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 1	0	0 0	1 0	0	0 0	0 0	0 0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	131	8	0	109	0	0	0	0	17	0	1
Growth Adj:	1.00	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	131	8	0	109	0	0	0	0	17	0	1
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	131	8	0	109	0	0	0	0	17	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	131	8	0	109	0	0	0	0	17	0	1
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	131	8	0	109	0	0	0	0	17	0	1
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
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	0.94	0.06	0.00	1.00	0.00	0.00	0.00	0.00	0.94	0.00	0.06
Final Sat.:	0	1696	104	0	1800	0	0	0	0	1700	0	100
Capacity Analysis Module:												
Vol/Sat:	0.00	0.08	0.08	0.00	0.06	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Crit Moves:		****								****		

Level Of Service Computation Report
Circular 212 Operations Method (Base Volume Alternative)

Intersection #3 Ripple St/Coolidge Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.109
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	16	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0 1	0	1	0 0	0	0	1! 0	0	0	1! 0
Volume Module:												
Base Vol:	0	97	9	34	113	0	0	0	0	15	0	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	97	9	34	113	0	0	0	0	15	0	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	97	9	34	113	0	0	0	0	15	0	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	97	9	34	113	0	0	0	0	15	0	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	97	9	34	113	0	0	0	0	15	0	35
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
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	0.92	0.08	0.23	0.77	0.00	0.00	1.00	0.00	0.30	0.00	0.70
Final Sat.:	0	1647	153	416	1384	0	0	1800	0	540	0	1260
Capacity Analysis Module:												
Vol/Sat:	0.00	0.06	0.06	0.08	0.08	0.00	0.00	0.00	0.00	0.03	0.00	0.03
Crit Moves:					****					****		

Level Of Service Computation Report
Circular 212 Operations Method (Base Volume Alternative)

Intersection #4 Ripple St/Newell St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.170
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	17	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 0	0	0	1! 0	0	0	1! 0	0	0	0 1 0
Volume Module:												
Base Vol:	49	11	0	8	24	128	81	27	38	0	64	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	49	11	0	8	24	128	81	27	38	0	64	8
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:	49	11	0	8	24	128	81	27	38	0	64	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	11	0	8	24	128	81	27	38	0	64	8
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:	49	11	0	8	24	128	81	27	38	0	64	8
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
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:	0.82	0.18	0.00	0.05	0.15	0.80	0.56	0.18	0.26	0.00	0.89	0.11
Final Sat.:	1470	330	0	90	270	1440	999	333	468	0	1600	200
Capacity Analysis Module:												
Vol/Sat:	0.03	0.03	0.00	0.09	0.09	0.09	0.08	0.08	0.08	0.00	0.04	0.04
Crit Moves:					****			****				

Level Of Service Computation Report
Circular 212 Operations Method (Base Volume Alternative)

Intersection #1 Ripple St/Rosanna St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.179
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	18	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 0	0	0	1! 0	0	0	1! 0	0	0	1! 0 0
Volume Module:												
Base Vol:	136	5	0	1	2	13	12	17	152	4	11	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	136	5	0	1	2	13	12	17	152	4	11	1
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:	136	5	0	1	2	13	12	17	152	4	11	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	136	5	0	1	2	13	12	17	152	4	11	1
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:	136	5	0	1	2	13	12	17	152	4	11	1
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
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:	0.96	0.04	0.00	0.06	0.12	0.82	0.07	0.09	0.84	0.25	0.69	0.06
Final Sat.:	1736	64	0	113	225	1463	119	169	1512	450	1238	113
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.00	0.01	0.01	0.01	0.10	0.10	0.10	0.01	0.01	0.01
Crit Moves:	****						****					

Level Of Service Computation Report
Circular 212 Operations Method (Base Volume Alternative)

Intersection #2 Ripple St/Marsh St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.058
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	15	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 1	0	0 0	1 0	0	0 0	0 0	0 0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	94	11	0	105	0	0	0	0	8	0	1
Growth Adj:	1.00	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	94	11	0	105	0	0	0	0	8	0	1
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	94	11	0	105	0	0	0	0	8	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	94	11	0	105	0	0	0	0	8	0	1
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	94	11	0	105	0	0	0	0	8	0	1
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
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	0.90	0.10	0.00	1.00	0.00	0.00	0.00	0.00	0.89	0.00	0.11
Final Sat.:	0	1611	189	0	1800	0	0	0	0	1600	0	200
Capacity Analysis Module:												
Vol/Sat:	0.00	0.06	0.06	0.00	0.06	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Crit Moves:		****									****	

Level Of Service Computation Report
Circular 212 Operations Method (Base Volume Alternative)

Intersection #3 Ripple St/Coolidge Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.102
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	16	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	1 0	0	1 0	0 0	0	0	1! 0 0	0	0	1! 0 0
Volume Module:												
Base Vol:	0	72	19	29	89	0	0	0	0	19	0	46
Growth Adj:	1.00	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	72	19	29	89	0	0	0	0	19	0	46
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	72	19	29	89	0	0	0	0	19	0	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	72	19	29	89	0	0	0	0	19	0	46
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	72	19	29	89	0	0	0	0	19	0	46
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
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	0.79	0.21	0.25	0.75	0.00	0.00	1.00	0.00	0.29	0.00	0.71
Final Sat.:	0	1424	376	442	1358	0	0	1800	0	526	0	1274
Capacity Analysis Module:												
Vol/Sat:	0.00	0.05	0.05	0.07	0.07	0.00	0.00	0.00	0.00	0.04	0.00	0.04
Crit Moves:					****					****		

Level Of Service Computation Report
Circular 212 Operations Method (Base Volume Alternative)

Intersection #4 Ripple St/Newell St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.156
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	17	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	36	12	2	7	25	85	88	34	41	2	59	9
Growth Adj:	1.00	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	12	2	7	25	85	88	34	41	2	59	9
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:	36	12	2	7	25	85	88	34	41	2	59	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	12	2	7	25	85	88	34	41	2	59	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	12	2	7	25	85	88	34	41	2	59	9
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
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:	0.72	0.24	0.04	0.06	0.21	0.73	0.54	0.21	0.25	0.03	0.84	0.13
Final Sat.:	1296	432	72	108	385	1308	972	375	453	51	1517	231
Capacity Analysis Module:												
Vol/Sat:	0.03	0.03	0.03	0.06	0.07	0.06	0.09	0.09	0.09	0.04	0.04	0.04
Crit Moves:					****			****				

Level Of Service Computation Report
Circular 212 Operations Method (Base Volume Alternative)

Intersection #1 Ripple St/Rosanna St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.166
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	17	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	0 1	0	0	1! 0	0	1	0 0 0
Volume Module:												
Base Vol:	134	9	7	0	3	12	11	9	128	7	14	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:	134	9	7	0	3	12	11	9	128	7	14	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:	134	9	7	0	3	12	11	9	128	7	14	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	134	9	7	0	3	12	11	9	128	7	14	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:	134	9	7	0	3	12	11	9	128	7	14	0
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
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:	0.89	0.06	0.05	0.00	0.20	0.80	0.07	0.06	0.87	0.33	0.67	0.00
Final Sat.:	1608	108	84	0	360	1440	134	109	1557	600	1200	0
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.08	0.00	0.01	0.01	0.08	0.08	0.08	0.01	0.01	0.00
Crit Moves:	****						****					

Level Of Service Computation Report
Circular 212 Operations Method (Base Volume Alternative)

Intersection #2 Ripple St/Marsh St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.069
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	15	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 1	0	0	1 0	0 0	0	0 0	0 0	0	0 1!	0 0
Volume Module:												
Base Vol:	0	96	13	1	93	0	0	0	0	13	0	2
Growth Adj:	1.00	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	96	13	1	93	0	0	0	0	13	0	2
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	96	13	1	93	0	0	0	0	13	0	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	96	13	1	93	0	0	0	0	13	0	2
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	96	13	1	93	0	0	0	0	13	0	2
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
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	0.88	0.12	0.01	0.99	0.00	0.00	0.00	0.00	0.87	0.00	0.13
Final Sat.:	0	1585	215	19	1781	0	0	0	0	1560	0	240
Capacity Analysis Module:												
Vol/Sat:	0.00	0.06	0.06	0.05	0.05	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Crit Moves:		****								****		

Level Of Service Computation Report
Circular 212 Operations Method (Base Volume Alternative)

Intersection #3 Ripple St/Coolidge Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.097
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	16	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	0	0	1! 0	0	0	1! 0
Volume Module:												
Base Vol:	1	74	19	28	88	1	1	0	1	12	0	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	74	19	28	88	1	1	0	1	12	0	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	74	19	28	88	1	1	0	1	12	0	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	74	19	28	88	1	1	0	1	12	0	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1	74	19	28	88	1	1	0	1	12	0	45
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.01	0.79	0.20	0.24	0.75	0.01	0.50	0.00	0.50	0.21	0.00	0.79
Final Sat.:	19	1417	364	431	1354	15	900	0	900	379	0	1421
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.05	0.07	0.07	0.06	0.00	0.00	0.00	0.03	0.00	0.03
Crit Moves:				****						****		

Level Of Service Computation Report
Circular 212 Operations Method (Base Volume Alternative)

Intersection #4 Ripple St/Newell St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.168
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	17	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	0	0	1! 0	0	0	1! 0
Volume Module:												
Base Vol:	57	22	2	6	26	87	84	38	62	5	32	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	22	2	6	26	87	84	38	62	5	32	10
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:	57	22	2	6	26	87	84	38	62	5	32	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	22	2	6	26	87	84	38	62	5	32	10
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:	57	22	2	6	26	87	84	38	62	5	32	10
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
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:	0.71	0.27	0.02	0.05	0.22	0.73	0.45	0.21	0.34	0.11	0.68	0.21
Final Sat.:	1267	489	44	91	393	1316	822	372	607	191	1226	383
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.05	0.07	0.07	0.07	0.10	0.10	0.10	0.03	0.03	0.03
Crit Moves:					****			****				

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #1 Ripple St/Rosanna St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.297
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	20	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1! 0	0	0 0	0 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	188	2	5	0	9	15	10	9	138	6	11	1
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	189	2	5	0	9	15	10	9	139	6	11	1
Added Vol:	0	0	0	0	0	11	2	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	189	2	5	0	9	26	12	9	139	6	11	1
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:	189	2	5	0	9	26	12	9	139	6	11	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	189	2	5	0	9	26	12	9	139	6	11	1
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:	189	2	5	0	9	26	12	9	139	6	11	1
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
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:	0.96	0.01	0.03	0.00	0.26	0.74	0.07	0.06	0.87	0.33	0.61	0.06
Final Sat.:	1157	12	31	0	309	891	90	68	1042	400	733	67
Capacity Analysis Module:												
Vol/Sat:	0.16	0.16	0.16	0.00	0.03	0.03	0.13	0.13	0.13	0.02	0.02	0.02
Crit Moves:	****						****					

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #2 Ripple St/Marsh St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.132
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	17	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0 1	0	0	1 0	0	0	0 0	0	0	1! 0 0
Volume Module:												
Base Vol:	0	131	8	0	109	0	0	0	0	17	0	1
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	132	8	0	110	0	0	0	0	17	0	1
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:	0	132	8	0	110	0	0	0	0	17	0	1
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	132	8	0	110	0	0	0	0	17	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	132	8	0	110	0	0	0	0	17	0	1
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	132	8	0	110	0	0	0	0	17	0	1
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
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	0.94	0.06	0.00	1.00	0.00	0.00	0.00	0.00	0.94	0.00	0.06
Final Sat.:	0	1131	69	0	1200	0	0	0	0	1133	0	67
Capacity Analysis Module:												
Vol/Sat:	0.00	0.12	0.12	0.00	0.09	0.00	0.00	0.00	0.00	0.02	0.00	0.02
Crit Moves:		****								****		

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #3 Ripple St/Coolidge Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.165
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	17	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 1	0	0	1 0	0 0	0	0 0	1! 0	0	0 0	1! 0 0
Volume Module:												
Base Vol:	0	97	9	34	113	0	0	0	0	15	0	35
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	98	9	34	114	0	0	0	0	15	0	35
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:	0	98	9	34	114	0	0	0	0	15	0	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	98	9	34	114	0	0	0	0	15	0	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	98	9	34	114	0	0	0	0	15	0	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	98	9	34	114	0	0	0	0	15	0	35
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
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	0.92	0.08	0.23	0.77	0.00	0.00	1.00	0.00	0.30	0.00	0.70
Final Sat.:	0	1098	102	278	922	0	0	1200	0	360	0	840
Capacity Analysis Module:												
Vol/Sat:	0.00	0.09	0.09	0.12	0.12	0.00	0.00	0.00	0.00	0.04	0.00	0.04
Crit Moves:					****					****		

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #4 Ripple St/Newell St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.257
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	19	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 0	0	0	1! 0	0	0	1! 0	0	0	0 1 0
Volume Module:												
Base Vol:	49	11	0	8	24	128	81	27	38	0	64	8
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	49	11	0	8	24	129	82	27	38	0	64	8
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:	49	11	0	8	24	129	82	27	38	0	64	8
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:	49	11	0	8	24	129	82	27	38	0	64	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	11	0	8	24	129	82	27	38	0	64	8
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:	49	11	0	8	24	129	82	27	38	0	64	8
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
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:	0.82	0.18	0.00	0.05	0.15	0.80	0.56	0.18	0.26	0.00	0.89	0.11
Final Sat.:	980	220	0	60	180	960	666	222	312	0	1067	133
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.00	0.13	0.13	0.13	0.12	0.12	0.12	0.00	0.06	0.06
Crit Moves:					****			****				

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #1 Ripple St/Rosanna St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.279	
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx	
Optimal Cycle:	20	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 0	0	0	1! 0	0	0	1! 0	0	0	1! 0 0
Volume Module:												
Base Vol:	136	5	0	1	2	13	12	17	152	4	11	1
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	137	5	0	1	2	13	12	17	153	4	11	1
Added Vol:	0	0	0	0	0	5	10	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	137	5	0	1	2	18	22	17	153	4	11	1
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:	137	5	0	1	2	18	22	17	153	4	11	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	137	5	0	1	2	18	22	17	153	4	11	1
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:	137	5	0	1	2	18	22	17	153	4	11	1
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
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:	0.96	0.04	0.00	0.05	0.09	0.86	0.11	0.09	0.80	0.25	0.69	0.06
Final Sat.:	1157	43	0	57	114	1028	138	107	955	300	825	75
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.00	0.02	0.02	0.02	0.16	0.16	0.16	0.01	0.01	0.01
Crit Moves:	****						****					

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #2 Ripple St/Marsh St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.096
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	16	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 1	0	0 0	1 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	94	11	0	105	0	0	0	0	8	0	1
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	95	11	0	106	0	0	0	0	8	0	1
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:	0	95	11	0	106	0	0	0	0	8	0	1
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	95	11	0	106	0	0	0	0	8	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	95	11	0	106	0	0	0	0	8	0	1
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	95	11	0	106	0	0	0	0	8	0	1
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
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	0.90	0.10	0.00	1.00	0.00	0.00	0.00	0.00	0.89	0.00	0.11
Final Sat.:	0	1074	126	0	1200	0	0	0	0	1067	0	133
Capacity Analysis Module:												
Vol/Sat:	0.00	0.09	0.09	0.00	0.09	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Crit Moves:		****								****		

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #3 Ripple St/Coolidge Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.154
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	17	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 1	0	0	1 0	0 0	0	0	1! 0	0	0	1! 0 0
Volume Module:												
Base Vol:	0	72	19	29	89	0	0	0	0	19	0	46
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	73	19	29	90	0	0	0	0	19	0	46
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:	0	73	19	29	90	0	0	0	0	19	0	46
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	73	19	29	90	0	0	0	0	19	0	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	73	19	29	90	0	0	0	0	19	0	46
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	73	19	29	90	0	0	0	0	19	0	46
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
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	0.79	0.21	0.25	0.75	0.00	0.00	1.00	0.00	0.29	0.00	0.71
Final Sat.:	0	949	251	295	905	0	0	1200	0	351	0	849
Capacity Analysis Module:												
Vol/Sat:	0.00	0.08	0.08	0.10	0.10	0.00	0.00	0.00	0.00	0.05	0.00	0.05
Crit Moves:					****					****		

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #4 Ripple St/Newell St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.235
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	19	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	0	0	1! 0	0	0	1! 0
Volume Module:												
Base Vol:	36	12	2	7	25	85	88	34	41	2	59	9
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	36	12	2	7	25	86	89	34	41	2	59	9
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	12	2	7	25	86	89	34	41	2	59	9
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:	36	12	2	7	25	86	89	34	41	2	59	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	12	2	7	25	86	89	34	41	2	59	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	12	2	7	25	86	89	34	41	2	59	9
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
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:	0.72	0.24	0.04	0.06	0.21	0.73	0.54	0.21	0.25	0.03	0.84	0.13
Final Sat.:	864	288	48	72	256	872	648	250	302	34	1011	154
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.04	0.10	0.10	0.10	0.14	0.14	0.14	0.06	0.06	0.06
Crit Moves:				****			****					

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #1 Ripple St/Rosanna St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.250
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	19	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	0	1	0	0	0	1! 0	0
Volume Module:												
Base Vol:	134	9	7	0	3	12	11	9	128	7	14	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	135	9	7	0	3	12	11	9	129	7	14	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:	135	9	7	0	3	12	11	9	129	7	14	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:	135	9	7	0	3	12	11	9	129	7	14	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	135	9	7	0	3	12	11	9	129	7	14	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:	135	9	7	0	3	12	11	9	129	7	14	0
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
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:	0.89	0.06	0.05	0.00	0.20	0.80	0.07	0.06	0.87	0.33	0.67	0.00
Final Sat.:	1072	72	56	0	240	960	89	73	1038	400	800	0
Capacity Analysis Module:												
Vol/Sat:	0.13	0.13	0.13	0.00	0.01	0.01	0.12	0.12	0.12	0.02	0.02	0.00
Crit Moves:	****						****					

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #2 Ripple St/Marsh St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.104
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	16	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 1	0	0	1 0	0 0	0	0 0	0 0	0	0 1!	0 0
Volume Module:												
Base Vol:	0	96	13	1	93	0	0	0	0	13	0	2
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	97	13	1	94	0	0	0	0	13	0	2
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:	0	97	13	1	94	0	0	0	0	13	0	2
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	97	13	1	94	0	0	0	0	13	0	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	97	13	1	94	0	0	0	0	13	0	2
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	97	13	1	94	0	0	0	0	13	0	2
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
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	0.88	0.12	0.01	0.99	0.00	0.00	0.00	0.00	0.87	0.00	0.13
Final Sat.:	0	1057	143	13	1187	0	0	0	0	1040	0	160
Capacity Analysis Module:												
Vol/Sat:	0.00	0.09	0.09	0.08	0.08	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Crit Moves:		****								****		

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #3 Ripple St/Coolidge Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.146
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	17	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	0	0	1! 0	0	0	1! 0
Volume Module:												
Base Vol:	1	74	19	28	88	1	1	0	1	12	0	45
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	1	75	19	28	89	1	1	0	1	12	0	45
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:	1	75	19	28	89	1	1	0	1	12	0	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	75	19	28	89	1	1	0	1	12	0	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	75	19	28	89	1	1	0	1	12	0	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1	75	19	28	89	1	1	0	1	12	0	45
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.01	0.79	0.20	0.24	0.75	0.01	0.50	0.00	0.50	0.21	0.00	0.79
Final Sat.:	13	945	243	287	903	10	600	0	600	253	0	947
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.08	0.10	0.10	0.10	0.00	0.00	0.00	0.05	0.00	0.05
Crit Moves:				****						****		

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #4 Ripple St/Newell St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.254
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	19	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	0	0	1! 0	0	0	1! 0
Volume Module:												
Base Vol:	57	22	2	6	26	87	84	38	62	5	32	10
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	57	22	2	6	26	88	85	38	62	5	32	10
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:	57	22	2	6	26	88	85	38	62	5	32	10
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:	57	22	2	6	26	88	85	38	62	5	32	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	22	2	6	26	88	85	38	62	5	32	10
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:	57	22	2	6	26	88	85	38	62	5	32	10
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
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:	0.71	0.27	0.02	0.05	0.22	0.73	0.46	0.20	0.34	0.11	0.68	0.21
Final Sat.:	844	326	30	61	262	877	548	248	404	128	817	255
Capacity Analysis Module:												
Vol/Sat:	0.07	0.07	0.07	0.10	0.10	0.10	0.15	0.15	0.15	0.04	0.04	0.04
Crit Moves:				****			****					

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #1 Ripple St/Rosanna St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.300
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	0 1	0	0	1! 0	0	0	1! 0
Volume Module:												
Base Vol:	188	2	5	0	9	15	10	9	138	6	11	1
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	189	2	5	0	9	15	10	9	139	6	11	1
Added Vol:	0	0	3	0	0	11	2	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	189	2	8	0	9	26	12	9	139	6	11	1
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:	189	2	8	0	9	26	12	9	139	6	11	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	189	2	8	0	9	26	12	9	139	6	11	1
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:	189	2	8	0	9	26	12	9	139	6	11	1
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
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:	0.95	0.01	0.04	0.00	0.26	0.74	0.07	0.06	0.87	0.33	0.61	0.06
Final Sat.:	1140	12	48	0	309	891	90	68	1042	400	733	67
Capacity Analysis Module:												
Vol/Sat:	0.17	0.17	0.17	0.00	0.03	0.03	0.13	0.13	0.13	0.02	0.02	0.02
Crit Moves:	****						****					

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #2 Ripple St/Marsh St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.133
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	17	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 1	0	0 0	1 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	131	8	0	109	0	0	0	0	17	0	1
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	132	8	0	110	0	0	0	0	17	0	1
Added Vol:	0	2	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:	0	134	8	0	110	0	0	0	0	17	0	1
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	134	8	0	110	0	0	0	0	17	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	134	8	0	110	0	0	0	0	17	0	1
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	134	8	0	110	0	0	0	0	17	0	1
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
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	0.94	0.06	0.00	1.00	0.00	0.00	0.00	0.00	0.94	0.00	0.06
Final Sat.:	0	1132	68	0	1200	0	0	0	0	1133	0	67
Capacity Analysis Module:												
Vol/Sat:	0.00	0.12	0.12	0.00	0.09	0.00	0.00	0.00	0.00	0.02	0.00	0.02
Crit Moves:		****								****		

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #3 Ripple St/Coolidge Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.166
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	17	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 1	0	0	1 0	0 0	0	0	1! 0	0	0	1! 0 0
Volume Module:												
Base Vol:	0	97	9	34	113	0	0	0	0	15	0	35
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	98	9	34	114	0	0	0	0	15	0	35
Added Vol:	0	1	0	0	0	0	0	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	99	9	34	114	0	0	0	0	15	0	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	99	9	34	114	0	0	0	0	15	0	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	99	9	34	114	0	0	0	0	15	0	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	99	9	34	114	0	0	0	0	15	0	36
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
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	0.92	0.08	0.23	0.77	0.00	0.00	1.00	0.00	0.29	0.00	0.71
Final Sat.:	0	1099	101	278	922	0	0	1200	0	353	0	847
Capacity Analysis Module:												
Vol/Sat:	0.00	0.09	0.09	0.12	0.12	0.00	0.00	0.00	0.00	0.04	0.00	0.04
Crit Moves:					****					****		

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #4 Ripple St/Newell St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.257
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	19	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 0	0	0	1! 0	0	0	1! 0	0	0	0 1 0
Volume Module:												
Base Vol:	49	11	0	8	24	128	81	27	38	0	64	8
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	49	11	0	8	24	129	82	27	38	0	64	8
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:	49	11	0	8	24	129	82	27	38	0	64	8
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:	49	11	0	8	24	129	82	27	38	0	64	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	11	0	8	24	129	82	27	38	0	64	8
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:	49	11	0	8	24	129	82	27	38	0	64	8
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
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:	0.82	0.18	0.00	0.05	0.15	0.80	0.56	0.18	0.26	0.00	0.89	0.11
Final Sat.:	980	220	0	60	180	960	666	222	312	0	1067	133
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.00	0.13	0.13	0.13	0.12	0.12	0.12	0.00	0.06	0.06
Crit Moves:					****			****				

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #1 Ripple St/Rosanna St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.279
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	20	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 0	0	0	1! 0	0	0	1! 0	0	0	1! 0 0
Volume Module:												
Base Vol:	136	5	0	1	2	13	12	17	152	4	11	1
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	137	5	0	1	2	13	12	17	153	4	11	1
Added Vol:	0	0	0	0	0	5	10	0	0	3	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	137	5	0	1	2	18	22	17	153	7	11	1
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:	137	5	0	1	2	18	22	17	153	7	11	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	137	5	0	1	2	18	22	17	153	7	11	1
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:	137	5	0	1	2	18	22	17	153	7	11	1
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
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:	0.96	0.04	0.00	0.05	0.09	0.86	0.11	0.09	0.80	0.37	0.58	0.05
Final Sat.:	1157	43	0	57	114	1028	138	107	955	441	696	63
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.00	0.02	0.02	0.02	0.16	0.16	0.16	0.02	0.02	0.02
Crit Moves:	****						****					

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #2 Ripple St/Marsh St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.097
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	16	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 1	0	0 0	1 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	94	11	0	105	0	0	0	0	8	0	1
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	95	11	0	106	0	0	0	0	8	0	1
Added Vol:	0	0	0	0	2	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	95	11	0	108	0	0	0	0	8	0	1
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	95	11	0	108	0	0	0	0	8	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	95	11	0	108	0	0	0	0	8	0	1
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	95	11	0	108	0	0	0	0	8	0	1
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
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	0.90	0.10	0.00	1.00	0.00	0.00	0.00	0.00	0.89	0.00	0.11
Final Sat.:	0	1074	126	0	1200	0	0	0	0	1067	0	133
Capacity Analysis Module:												
Vol/Sat:	0.00	0.09	0.09	0.00	0.09	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Crit Moves:					****					****		

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #3 Ripple St/Coolidge Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.155
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	17	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 1	0	0	1 0	0 0	0	0	1! 0	0	0	1! 0 0
Volume Module:												
Base Vol:	0	72	19	29	89	0	0	0	0	19	0	46
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	73	19	29	90	0	0	0	0	19	0	46
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:	0	73	19	30	91	0	0	0	0	19	0	46
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	73	19	30	91	0	0	0	0	19	0	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	73	19	30	91	0	0	0	0	19	0	46
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	73	19	30	91	0	0	0	0	19	0	46
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
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	0.79	0.21	0.25	0.75	0.00	0.00	1.00	0.00	0.29	0.00	0.71
Final Sat.:	0	949	251	300	900	0	0	1200	0	351	0	849
Capacity Analysis Module:												
Vol/Sat:	0.00	0.08	0.08	0.10	0.10	0.00	0.00	0.00	0.00	0.05	0.00	0.05
Crit Moves:					****					****		

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #4 Ripple St/Newell St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.235
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	19	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	36	12	2	7	25	85	88	34	41	2	59	9
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	36	12	2	7	25	86	89	34	41	2	59	9
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	12	2	7	25	86	89	34	41	2	59	9
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:	36	12	2	7	25	86	89	34	41	2	59	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	12	2	7	25	86	89	34	41	2	59	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	12	2	7	25	86	89	34	41	2	59	9
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
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:	0.72	0.24	0.04	0.06	0.21	0.73	0.54	0.21	0.25	0.03	0.84	0.13
Final Sat.:	864	288	48	72	256	872	648	250	302	34	1011	154
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.04	0.10	0.10	0.10	0.14	0.14	0.14	0.06	0.06	0.06
Crit Moves:				****			****					

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #1 Ripple St/Rosanna St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.350
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	22	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	0 1	0	0	1! 0	0	1	0 0 0
Volume Module:												
Base Vol:	134	9	7	0	3	12	11	9	128	7	14	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	135	9	7	0	3	12	11	9	129	7	14	0
Added Vol:	0	6	78	0	1	0	0	36	0	11	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	135	15	85	0	4	12	11	45	129	18	19	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:	135	15	85	0	4	12	11	45	129	18	19	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	135	15	85	0	4	12	11	45	129	18	19	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:	135	15	85	0	4	12	11	45	129	18	19	0
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
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:	0.58	0.06	0.36	0.00	0.25	0.75	0.06	0.24	0.70	0.49	0.51	0.00
Final Sat.:	689	77	434	0	300	900	72	292	836	583	617	0
Capacity Analysis Module:												
Vol/Sat:	0.20	0.20	0.20	0.00	0.01	0.01	0.15	0.15	0.15	0.03	0.03	0.00
Crit Moves:	****						****					

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #2 Ripple St/Marsh St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.167
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	17	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 1	0	0	1 0	0 0	0	0 0	0 0	0	0 1!	0 0
Volume Module:												
Base Vol:	0	96	13	1	93	0	0	0	0	13	0	2
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	97	13	1	94	0	0	0	0	13	0	2
Added Vol:	0	76	0	0	11	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	173	13	1	105	0	0	0	0	13	0	2
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	173	13	1	105	0	0	0	0	13	0	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	173	13	1	105	0	0	0	0	13	0	2
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	173	13	1	105	0	0	0	0	13	0	2
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
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	0.93	0.07	0.01	0.99	0.00	0.00	0.00	0.00	0.87	0.00	0.13
Final Sat.:	0	1115	85	11	1189	0	0	0	0	1040	0	160
Capacity Analysis Module:												
Vol/Sat:	0.00	0.15	0.15	0.09	0.09	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Crit Moves:		****								****		

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #3 Ripple St/Coolidge Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.180
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	18	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	0	0	1! 0	0	0	1! 0
Volume Module:												
Base Vol:	1	74	19	28	88	1	1	0	1	12	0	45
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	1	75	19	28	89	1	1	0	1	12	0	45
Added Vol:	0	46	0	3	6	0	0	0	0	0	0	18
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	121	19	31	95	1	1	0	1	12	0	63
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:	1	121	19	31	95	1	1	0	1	12	0	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	121	19	31	95	1	1	0	1	12	0	63
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:	1	121	19	31	95	1	1	0	1	12	0	63
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.01	0.86	0.13	0.24	0.75	0.01	0.50	0.00	0.50	0.16	0.00	0.84
Final Sat.:	9	1028	163	295	895	10	600	0	600	192	0	1008
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.12	0.11	0.11	0.11	0.00	0.00	0.00	0.06	0.00	0.06
Crit Moves:		****								****		

Level Of Service Computation Report
Circular 212 Operations Method (Future Volume Alternative)

Intersection #4 Ripple St/Newell St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.278
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	20	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	0	0	1! 0	0	0	1! 0
Volume Module:												
Base Vol:	57	22	2	6	26	87	84	38	62	5	32	10
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	57	22	2	6	26	88	85	38	62	5	32	10
Added Vol:	0	12	0	0	2	3	24	0	0	0	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	34	2	6	28	91	109	38	62	5	32	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	34	2	6	28	91	109	38	62	5	32	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	34	2	6	28	91	109	38	62	5	32	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	34	2	6	28	91	109	38	62	5	32	12
Saturation Flow Module:												
Sat/Lane:	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
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:	0.61	0.37	0.02	0.05	0.22	0.73	0.52	0.18	0.30	0.10	0.66	0.24
Final Sat.:	736	438	26	58	271	871	623	219	358	122	784	294
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.08	0.10	0.10	0.10	0.17	0.17	0.17	0.04	0.04	0.04
Crit Moves:					****			****				

APPENDIX C

Approved Project Data

Search: CPC-2005-6796-ZC-GPA-ZV-ZAA Go Search Help Summary Details

Scanned Documents

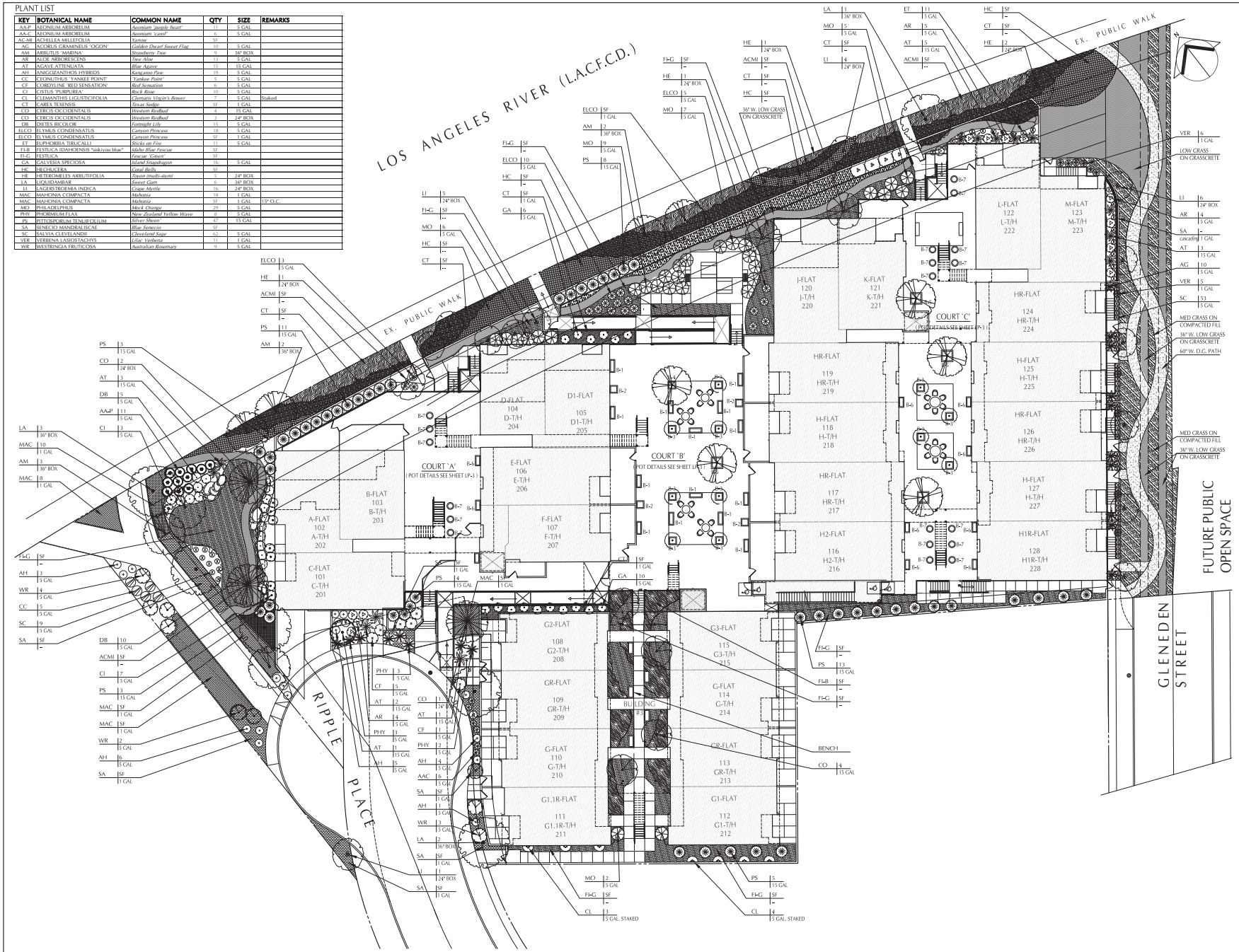
Case Information Summary Sheet

Case Number:	**CPC-2005-6796-ZC-GPA-ZV-ZAA**
Address:	2943 N GLENEDEN ST
Primary Zone:	(T)(Q)CM-1VL
Planning Area:	Silver Lake - Echo Park - Elysian Valley
Council District(s):	13
Certified Neighborhood Council (CNC):	Elysian Valley Riverside
Area Planning Commission (APC):	EAST LOS ANGELES
Historic Preservation Overlay Zone:	Data Not Available
Historic Cultural Monument:	Data Not Available
Project Description:	CONSTRUCTION OF 56 RESIDENTIAL UNITS.
Total Project Area:	71,907
Required Action:	Not Known
Client Contact Name:	Darryl L.Fisher
Client Contact Phone:	(562) 865-3025

LA City Home Page | City Planning Home Page | Case Tracking Information Home

PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME	QTY	SIZE	REMARKS
AA-P	AEONIUM ARBOREUM	*Aeonium 'purple heart'*	11	5 GAL	
AA-C	AEONIUM ARBOREUM	*Aeonium 'carol'*	6	5 GAL	
AC-MI	ACHILLEA MILLEFOLIA	*Yarrow*	SF		
AG	ACORUS GRAMINEUS 'OGON'	*Golden Dwarf Sweet Flag*	10	5 GAL	
AM	ARBUTUS 'MARINA'	*Strawberry Tree*	9	36" BOX	
AR	ALOE ARBORESCENS	*Tree Aloe*	13	5 GAL	
AT	AGAVE ATTENUATA	*Blue Agave*	15	15 GAL	
AH	ANIGOZANTHOS HYBRIDS	*Kangaroo Paw*	19	5 GAL	
CC	CEONUTHUS 'YANKEE POINT'	*'Yankee Point'*	5	5 GAL	
CF	CORDYLINE 'RED SENSATION'	*Red Sensation*	6	5 GAL	
CI	CISTUS 'PURPUREA'	*Rock Rose*	10	5 GAL	
CL	CLEMANTHIS LIGUSTICIFOLIA	*Clematis Virgin's Bower*	7	5 GAL	Staked
CT	CAREX TEXENSIS	*Texas Sedge*	SF	1 GAL	
CO	CERCIS OCCIDENTALIS	*Western Redbud*	4	15 GAL	
CO	CERCIS OCCIDENTALIS	*Western Redbud*	3	24" BOX	
DR	DIETES BICOLOR	*Fortnight Lily*	15	5 GAL	
ELCO	ELYMUS CONDENSATUS	*Canyon Princess*	18	5 GAL	
ELCO	ELYMUS CONDENSATUS	*Canyon Princess*	SF	1 GAL	
ET	EUPHORBIA TIRUCALLI	*Sticks on Fire*	11	5 GAL	
FI-B	FESTUCA IDAHOENSIS 'sidkiyou blue'	*Idaho Blue Fescue*	SF		
FI-G	FESTUCA	*Fescue 'Cowon'*	SF		
GA	GALVESIA SPECIOSA	*Island Snapdragon*	16	5 GAL	
HC	HECHUCERA	*Coral Bells*	SF		
HE	HETEROMELLES ARBUTIFOLIA	*Toyon (multi-stem)*	5	24" BOX	
LA	LIQUIDAMBAR	*Sweet Gum*	6	36" BOX	
LI	LAGERSTROEMIA INDICA	*Crape Myrtle*	16	24" BOX	
MAC	MAHONIA COMPACTA	*Mahonia*	18	1 GAL	
MAC	MAHONIA COMPACTA	*Mahonia*	SF	1 GAL	15" O.C.
MO	PHILADELPHUS	*Mock Orange*	29	5 GAL	
PHY	PHORMIUM FLAX	*New Zealand Yellow Wave*	8	5 GAL	
PS	PITTOSPORUM TENUIFOLIUM	*Silver Sheen'*	47	15 GAL	
SA	SENECIO MANDRALISCAE	*Blue Senecio*	SF		
SC	SALVIA CLEVELANDII	*Cleveland Sage*	62	5 GAL	
VER	VERBENA LASIOSTACHYS	*Lilac Verbena*	11	1 GAL	
WR	WESTRINGIA FRUTICOSA	*Australian Rosemary*	9	5 GAL	



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E-mail: Richie-b@richie-bray.com

LICENSED LANDSCAPE ARCHITECT DEBORAH RICHIE #1487 Signature Renewal Date Date STATE OF CALIFORNIA

PROJECT TITLE

56-UNIT CONDOMINIUM COMPLEX

ANASTASI DEVELOPMENT COMPANY, LLC

0000 RIPPLE PLACE, LOS ANGELES, CA

SHEET TITLE

LANDSCAPE PLAN

SUBMITTAL
6-14-2011

REVISIONS

6-7-2011
5-31-2011
5-27-2011
5-18-2011
5-12-2011
6-9-2011 5-4-2011

SCALE: 1/16" = 1'-0"

DATE: 3-16-2011

DRAWN BY:

CHECKED: DR

XREF FILE:

PROJECT NO.

SHEET NO.

LP-1