

**APPENDIX 1.0**

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**Notice of Preparation and Responses**



## Notice of Preparation

To: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

From: City of Glendale  
633 East Broadway, Room 103  
Glendale, California 91206

**Subject: Notice of Preparation of a Draft Environmental Impact Report**

### 515 W. Broadway Mixed Use Project

The City of Glendale will be the Lead Agency and will prepare an Environmental Impact Report (EIR) for this project. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approvals for the project.

The project description, location, and the probable environmental effects are described in the attached materials. A copy of the Initial Study (is  is not ) attached.

Due to the time limits mandated by state law, your response must be sent at the earliest possible time but not later than 30 days after receipt of this notice.

Please send your response to Ms. Kristen Asp, Senior Planner, City of Glendale, 633 East Broadway, Room 103, Glendale, California 91206. You may also email your response to: [kasp@glendaleca.gov](mailto:kasp@glendaleca.gov). Please provide the name of a contact person at your agency.

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Kristen Asp  
Title: Senior Planner  
Telephone: (818) 548-2140

Reference: California Administrative Code, Title 14 (*State CEQA Guidelines*), Sections 15082(a), 15103, 15375.

# 515 W. BROADWAY MIXED USE PROJECT

## LEAD AGENCY

City of Glendale  
Community Development Department, Planning Division  
633 East Broadway, Room 103  
Glendale, California 91206

## PROJECT LOCATION AND LAND USES

**Figure 1, Regional Location**, illustrates the location of the Project Site (Site) in the City of Glendale, approximately 7 miles north of the City of Los Angeles Civic Center and 7 miles west of the City of Pasadena Civic Center. State Highway (SR) 134 and SR 2 (the Ventura and Glendale Freeways) and Interstate 5 (the Golden State Freeway, I-5) provide regional access to the project site. As illustrated on **Figure 2, Project Location Map**, the project site consists of nine contiguous parcels located adjacent to the north of W. Broadway. The addresses are 515 W. Broadway and 104 N. Kenilworth Avenue.

The Site is bound on the south by W. Broadway, on the west by N. Kenilworth Avenue, on the north by six existing single-family residences and a 2-story apartment building, and on the east by Pacific Avenue. The Site is approximately 1.78 acres (77,757 square feet) and is currently developed with a 1-story retail store (Office Depot), a large surface parking lot, a 2-story apartment building, and a garage facing Kenilworth Avenue. The Site is designated as Mixed Use on the City of Glendale General Plan Land Use Map and Commercial/Residential Mixed Use (SFMU) on the City's Zoning Map.

## PROJECT DESCRIPTION

American General Design (Applicant) is proposing to develop a mixed-use building that would consist of 176 apartment units, 4 live-work units, and 18,200 square feet of ground-floor commercial space in a 5-story building. Demolition, construction, and Site improvements of the Project would last approximately 18 months. **Figure 3, Proposed Site Plan**, illustrates an example of the floor plan for the Project; and **Figure 4, Aerial View Model**, provides conceptual views of the proposed building from the southeast corner from Broadway and Pacific Avenue.

The Project would include 113 one-bedroom apartment units, 60 two-bedroom apartment units, and 7 studio units. Standard apartment units would be located from the second through fifth floors. The second floor would include 46 residential units, the third floor would have 48 residential units, the fourth floor would contain 44 residential units, and the fifth floor would contain 38 residential units. Additionally, 4 live-work units are proposed at the ground floor along Kenilworth Avenue, for a total of 180 residential units.

A total of 331 parking spaces would be located within a single subterranean-level parking garage and at grade. Specifically, 212 parking spaces would be located within the subterranean parking area reserved for residents; the remaining 119 parking spaces would be at grade for use by commercial tenants. The subterranean parking garage would be accessible from Kenilworth Ave, and at-grade parking would be accessible from W. Broadway Street and Pacific Avenue. Additionally, the Project would provide 3,200 square feet of publicly accessible open space, 22,000 square feet of common open space, and 17,600 square feet of private open space.

The Project includes the provision of affordable housing in accordance with Chapter 30.36, Density Bonus Incentives, of the Glendale Municipal Code, which allows for an increase in the height/stories of the project to 65 feet/5 stories where 60 feet/4 stories are permitted. To qualify for this concession, the Applicant is proposing to provide 5 percent of the total units for very low-income households (9 units). This incentive applies to all zones where residential developments of five or more dwelling units are proposed and where the applicant proposes density beyond that permitted by the applicable zone. The incentives allowed by Chapter 30.36 include a reduction in site development standards or a modification of zoning code requirements or architectural design requirements that exceed the minimum building standards, including but not limited to a reduction in setback and square footage requirements and in the number of parking spaces. An applicant seeking a density bonus, incentive, or concession is required to submit a Density Bonus Housing Plan identifying the allowed number of units, the number requested, and the amount of density bonus and the number and type of incentives or concessions requested.

State law indicates that a project is eligible for a 20 percent density bonus when at least 5 percent of the units are designated for very low-income households or 10 percent of the units are designated for low-income households. The Project would provide 5 percent of the units for very low-income households. The SFMU zone allows buildings on a site adjacent to the Moderate Density Residential (R-3050) zone to be up to 4 stories and 60 feet in height and a maximum density of 87 dwelling units per acre. The Site is 1.78 acres in size and would be allowed a maximum density of 148 dwelling units. To provide these affordable housing units, the Project includes a request to exceed the SFMU zone story standard and unit allowance applicable to this site.

## **DISCRETIONARY APPROVAL ACTIONS**

Discretionary approval from the City of Glendale would be necessary for implementation of the project and may include but are not limited to the following:

- Stage II Design Review
- Density Bonus Housing Agreement
- Density Bonus Housing Plan

## **PROBABLE ENVIRONMENTAL EFFECTS**

Based on a preliminary review of the proposed project consistent with Section 15060 of the California Environmental Quality Act (CEQA) Guidelines, the Glendale Community Development Department has determined that an EIR should be prepared for this proposed project. In addition, consistent with Section 15082 of the State CEQA Guidelines, the Glendale Community Development Department has identified the following probable environmental effects of the project, which will be addressed in the EIR for this project:

- Aesthetics
- Hazards and Hazardous Materials
- Noise
- Public Services
- Transportation/Traffic
- Air Quality
- Land Use/Planning
- Population/Housing
- Recreation
- Utilities/Service Systems

The City of Glendale Community Development Department has determined that there is not a likelihood of potentially significant effects related to the following environmental topics. The EIR will include information on why these effects were determined not to be significant and are not addressed in detail in the EIR:

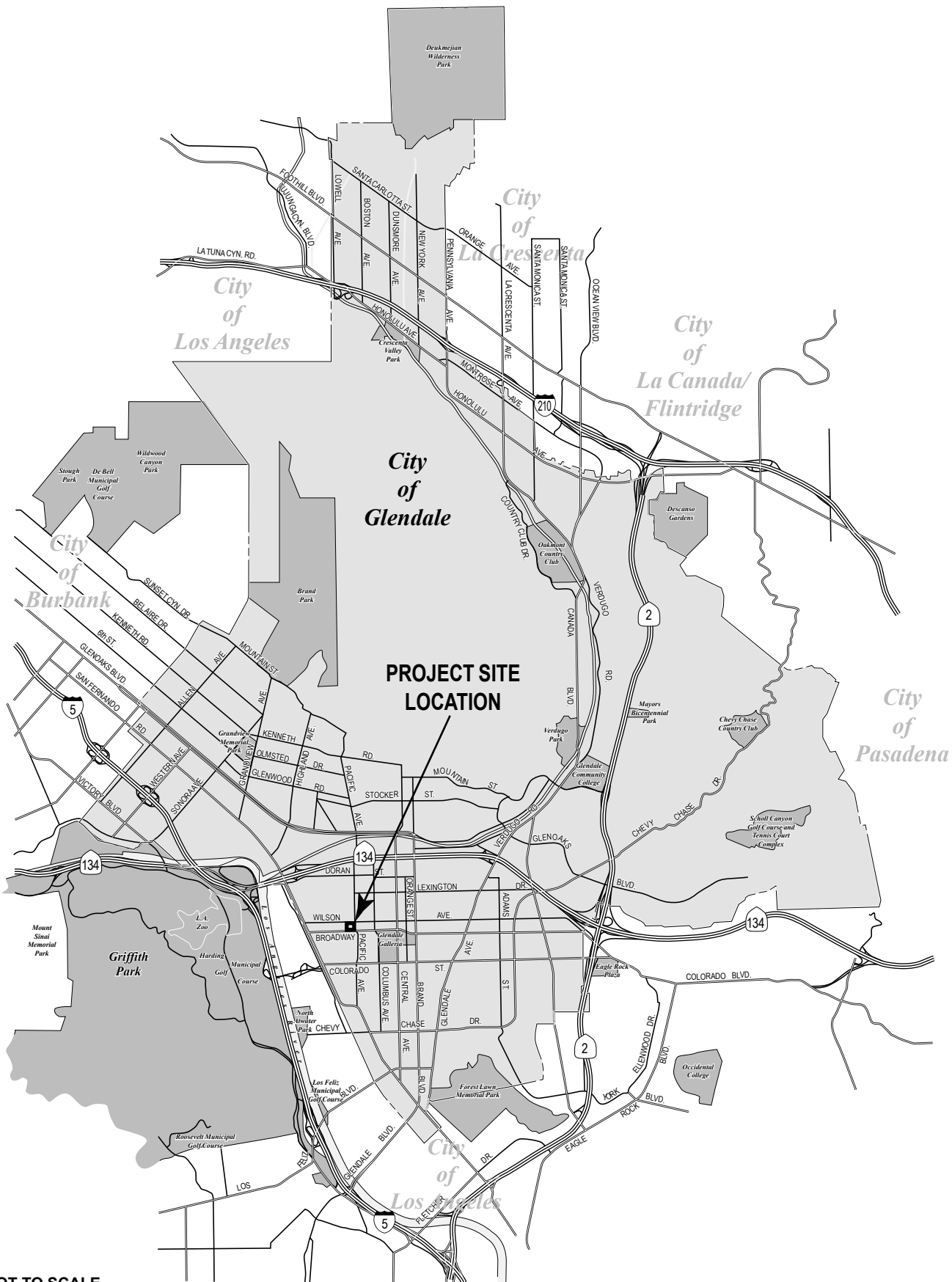
- Agriculture/Forestry Resources
- Cultural Resources
- Hydrology/Water Quality
- Biological Resources
- Geology/Soils
- Mineral Resources

The Glendale Community Development Department will consider comments received in response to this Notice of Preparation in determining the scope and content of the EIR for this project. Any comments provided should identify specific topics of environmental concern and your reason for suggesting the study of these topics in the EIR. Please provide your comments by **August 20, 2014**.

Please provide your comments in writing to:

City of Glendale  
Community Development Department, Planning Division  
633 East Broadway, Room 103  
Glendale, California 91206  
Attention: Kristen Asp, Senior Planner

Thank you for your participation in the environmental review of this project.



 NOT TO SCALE

SOURCE: Meridian Consultants, LLC - July 2014

FIGURE 1



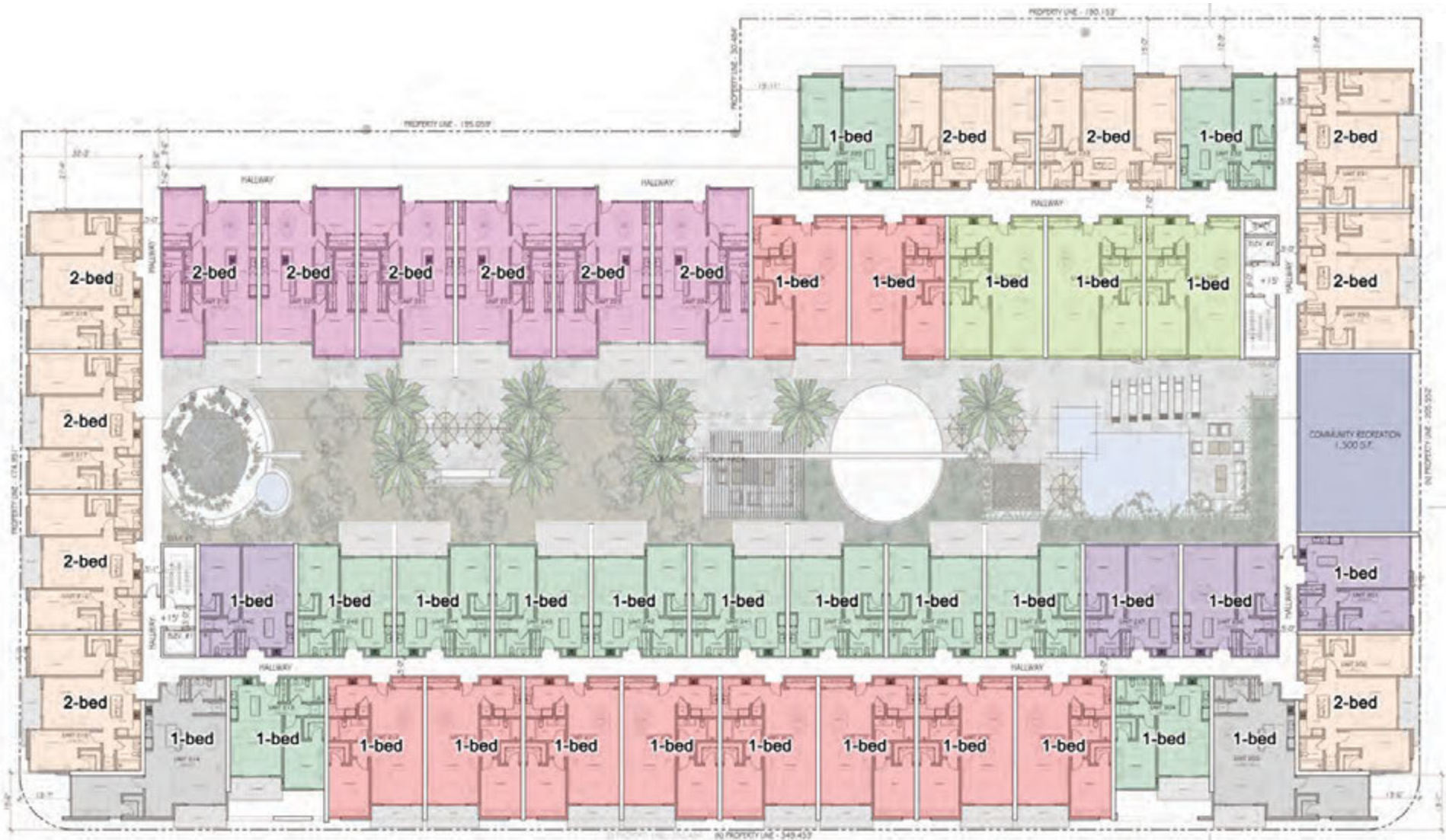
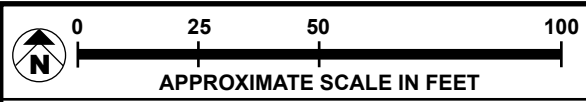
# Regional Location



SOURCE: Google Earth – 2014

FIGURE 2





SOURCE: American General Design – 2014

FIGURE 3



SOURCE: American General Design – 2014

FIGURE 4





Edmund G. Brown Jr.  
Governor

STATE OF CALIFORNIA  
Governor's Office of Planning and Research  
State Clearinghouse and Planning Unit



Ken Alex  
Director

Notice of Preparation

July 30, 2014

To: Reviewing Agencies  
Re: 515 W. Broadway Mixed-Use Project  
SCH# 2014071092

Attached for your review and comment is the Notice of Preparation (NOP) for the 515 W. Broadway Mixed-Use Project draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

**Kristen Asp**  
**City of Glendale**  
**633 E. Broadway, Rm 103**  
**Glendale, CA 91206**

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan  
Director, State Clearinghouse

Attachments  
cc: Lead Agency

**Document Details Report  
State Clearinghouse Data Base**

**SCH#** 2014071092  
**Project Title** 515 W. Broadway Mixed-Use Project  
**Lead Agency** Glendale, City of

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**Type** **NOP** Notice of Preparation

**Description** American General Design is proposing to develop a mixed-use building that would consist of 176 apartment units, 4 live-work units, and 18,200 sf of ground-floor commercial space in a 5-story building. Demolition, construction, and Site improvements of the Project would last approximately 18 months.

The Project would include 113 one-bedroom apartment units, 60 two-bedroom apartment units, and 7 studio units. Standard Apartment units would be located on the second through fifth floors. The second floor would include 46 residential units, the third floor would have 48 residential units, the fourth floor would contain 44 residential units, and the fifth floor would contain 38 residential units. Additionally, 4 live-work units are proposed at the ground floor along Kenilworth Avenue, for a total of 180 residential units.

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**Lead Agency Contact**

**Name** Kristen Asp  
**Agency** City of Glendale  
**Phone** 818 548 2140 **Fax**  
**email**  
**Address** 633 E. Broadway, Rm 103  
**City** Glendale **State** CA **Zip** 91206

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**Project Location**

**County** Los Angeles  
**City** Glendale  
**Region**  
**Cross Streets**  
**Lat / Long**  
**Parcel No.**  

<b>Township</b>	<b>Range</b>	<b>Section</b>	<b>Base</b>
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**Proximity to:**

**Highways**  
**Airports**  
**Railways**  
**Waterways**  
**Schools**  
**Land Use**

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**Project Issues** Aesthetic/Visual; Other Issues; Air Quality; Landuse; Noise; Population/Housing Balance; Recreation/Parks; Public Services; Traffic/Circulation; Agricultural Land; Forest Land/Fire Hazard; Water Quality; Biological Resources; Geologic/Seismic; Soil Erosion/Compaction/Grading; Minerals

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**Reviewing Agencies** Resources Agency; Department of Conservation; Office of Historic Preservation; Department of Parks and Recreation; Resources, Recycling and Recovery; Department of Water Resources; Department of Fish and Wildlife, Region 5; Office of Emergency Services, California; Native American Heritage Commission; California Highway Patrol; Department of Housing and Community Development; Caltrans, District 7; Air Resources Board; Regional Water Quality Control Board, Region 4

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**Date Received** 07/30/2014 **Start of Review** 07/30/2014 **End of Review** 08/28/2014



**DEPARTMENT OF TRANSPORTATION**  
DISTRICT 7-OFFICE OF TRANSPORTATION PLANNING  
100 S. MAIN STREET, MS 16  
LOS ANGELES, CA 90012  
PHONE (213) 897-9140  
FAX (213) 897-1337  
www.dot.ca.gov



*Serious drought.  
Help save water!*

August 6, 2014

Kristen Asp, Senior Planner  
City of Glendale  
633 East Broadway, Room 103  
Glendale, CA. 91206

RE: IGR/CEQA No. 140767/NY  
NOP/515 W. Broadway, Mixed Use Project  
SCH# 2014071092  
Vicinity: LA/SR-134 PM- 6.57, I-5 /PM-25.78

Dear Ms. Asp:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the 515 W. Broadway, Mixed Use Project consisting of 176 Apartments, 4 Live-Work Units & 18,200 SF Commercial Space in City of Glendale.

To fully analyze and evaluate the impacts of this project on the State transportation system, a traffic study in advance of the DEIR should be prepared. Please reference the Caltrans Traffic Impact Study Guide, which can be accessed on the Internet at:

[http://www.dot.ca.gov/hq/tpp/offices/ocp/igr\\_ceqa\\_files/tisguide.pdf](http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf)

Listed below are some elements of what should be included in the traffic study:

1. Presentations of assumptions and methods used to develop trip generation, trip distribution, choice of travel mode, and assignments of trips to SR-134 and Pacific Avenue On/Off Ramps and I-5 and Colorado Blvd. On/Off Ramps impacted by this project.
2. Consistency of project travel modeling with other regional and local modeling forecasts and with travel data. The IGR/CEQA office may use indices to check results. Differences or inconsistencies must be thoroughly explained.
3. Analysis of ADT, AM, and PM peak-hour volumes for both existing and future conditions in the affected area. This should include freeways, interchanges, and intersections, and all HOV facilities. Interchange Level of Service should be specified (HCM2000 method requested). Utilization of transit lines and vehicles, and of all facilities, should be realistically estimated. Future conditions would include build-out of all projects and any plan-horizon years.

4. Inclusion of all appropriate traffic volumes. Analysis should include traffic from the project, **cumulative traffic generated from all specific approved developments in the area**, and traffic growth other than from the project and developments. For example: existing + project + other projects + other growth.
5. Discussion of mitigation measures appropriate to alleviate anticipated traffic impacts. These mitigation discussions should include, but not be limited to, the following:
  - description of transportation infrastructure improvements
  - financial costs, funding sources and financing
  - sequence and scheduling considerations
  - implementation responsibilities, controls and monitoring

Any mitigation involving transit, HOV, or TDM must be justified and its effects conservatively estimated.

6. Specification of developer's percent share of the cost, as well as a plan of realistic mitigation measures under the control of the developer. The following ratio should be estimated: Additional traffic volume due to project implementation is divided by the total increase in the traffic volume (see Appendix "B" of the Guidelines). That ratio would be the projects equitable share responsibility.

For purposes of determining project share of costs, the number of trips from the project on each traveling segment or element is estimated in the context of forecasted traffic volumes which include build-out of all approved and not yet approved projects, and other sources of growth.

We look forward to reviewing the DEIR and expect to receive a copy from the State Clearinghouse. However, to expedite the review process, you may send a copy in advance to, Nerses Armand Yerjanian, the project engineer/coordinator.

If you have any questions regarding this response, please call Mr. Nerses Yerjanian, the Project Engineer/Coordinator, at (213) 897-6536 and refer to IGR/CEQA # 140767/NY.

Sincerely,



DIANNA WATSON  
IGR/CEQA Branch Chief  
Community Planning & LD IGR Review

cc: Scott Morgan, State Clearinghouse





South Coast  
Air Quality Management District  
21865 Copley Drive, Diamond Bar, CA 91765-4178  
(909) 396-2000 ♦ www.aqmd.gov

August 6, 2014

Ms. Kristen Asp, Senior Planner  
City of Glendale  
633 East Broadway, Room 103  
Glendale, CA 91206

**Notice of Preparation of a CEQA Document for the  
515 W. Broadway Mixed-Use Project**

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The SCAQMD staff's comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the draft CEQA document. Please send the SCAQMD a copy of the Draft EIR upon its completion. Note that copies of the Draft EIR that are submitted to the State Clearinghouse are not forwarded to the SCAQMD. Please forward a copy of the Draft EIR directly to SCAQMD at the address in our letterhead. **In addition, please send with the draft EIR all appendices or technical documents related to the air quality and greenhouse gas analyses and electronic versions of all air quality modeling and health risk assessment files. These include original emission calculation spreadsheets and modeling files (not Adobe PDF files). Without all files and supporting air quality documentation, the SCAQMD will be unable to complete its review of the air quality analysis in a timely manner. Any delays in providing all supporting air quality documentation will require additional time for review beyond the end of the comment period.**

**Air Quality Analysis**

The SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The SCAQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the SCAQMD's Subscription Services Department by calling (909) 396-3720. More recent guidance developed since this Handbook was published is also available on SCAQMD's website here: [http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-\(1993\)](http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993)). SCAQMD staff also recommends that the lead agency use the CalEEMod land use emissions software. This software has recently been updated to incorporate up-to-date state and locally approved emission factors and methodologies for estimating pollutant emissions from typical land use development. CalEEMod is the only software model maintained by the California Air Pollution Control Officers Association (CAPCOA) and replaces the now outdated URBEMIS. This model is available free of charge at: [www.caleemod.com](http://www.caleemod.com).

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the analysis.

The SCAQMD has also developed both regional and localized significance thresholds. The SCAQMD staff requests that the lead agency quantify criteria pollutant emissions and compare the results to the recommended regional significance thresholds found here: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2>. In addition to analyzing regional air quality impacts, the SCAQMD staff recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LST's can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the proposed project, it is

recommended that the lead agency perform a localized analysis by either using the LSTs developed by the SCAQMD or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>.

In the event that the proposed project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the lead agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment (“*Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*”) can be found at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis>. An analysis of all toxic air contaminant impacts due to the use of equipment potentially generating such air pollutants should also be included.

In addition, guidance on siting incompatible land uses (such as placing homes near freeways) can be found in the California Air Resources Board’s *Air Quality and Land Use Handbook: A Community Perspective*, which can be found at the following internet address: <http://www.arb.ca.gov/ch/handbook.pdf>. CARB’s Land Use Handbook is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process.

### **Mitigation Measures**

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate these impacts. Pursuant to state CEQA Guidelines §15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed. Several resources are available to assist the Lead Agency with identifying possible mitigation measures for the project, including:

- Chapter 11 of the SCAQMD *CEQA Air Quality Handbook*
- SCAQMD’s CEQA web pages at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies>.
- CAPCOA’s *Quantifying Greenhouse Gas Mitigation Measures* available here: <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>.
- SCAQMD’s Rule 403 – Fugitive Dust, and the Implementation Handbook for controlling construction-related emissions
- Other measures to reduce air quality impacts from land use projects can be found in the SCAQMD’s Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. This document can be found at the following internet address: <http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf?sfvrsn=4>.

### **Data Sources**

SCAQMD rules and relevant air quality reports and data are available by calling the SCAQMD’s Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available via the SCAQMD’s webpage (<http://www.aqmd.gov>).

The SCAQMD staff is available to work with the Lead Agency to ensure that project emissions are accurately evaluated and mitigated where feasible. If you have any questions regarding this letter, please contact me at [Eckerle@aqmd.gov](mailto:Eckerle@aqmd.gov) or call me at (909) 396-3128.

Sincerely,



Ed Eckerle  
Program Supervisor  
Planning, Rule Development & Area Sources



**Metro**

August 15, 2014

Kristen Asp  
Senior Planner  
City of Glendale  
633 East Broadway, Room 103  
Glendale, CA 91206

**RE: 515 West Broadway Mixed-Use Project**

Dear Ms. Asp,

Thank you for the opportunity to comment on the proposed 515 West Broadway Mixed-Use Project. This letter conveys recommendations from the Los Angeles County Metropolitan Transportation Authority (LACMTA) concerning issues that are germane to our agency's statutory responsibility in relation to our facilities and services that may be affected by the proposed project.

Metro bus lines operate on West Broadway, adjacent to the proposed project. Although the project is not expected to result in any long-term impacts on transit, the developer should be aware of the bus services that are present. Metro Bus Operations Control Special Events Coordinator should be contacted at 213-922-4632 regarding construction activities that may impact Metro bus lines. (For closures that last more than six months, Metro's Stops and Zones Department will also need to be notified at 213-922-5063). Other municipal bus may also be impacted and should be included in construction outreach efforts.

Beyond impacts to Metro facilities and operations, LACMTA must also notify the applicant of state requirements. A Transportation Impact Analysis (TIA), with roadway and transit components, is required under the State of California Congestion Management Program (CMP) statute. The CMP TIA Guidelines are published in the "2010 Congestion Management Program for Los Angeles County", Appendix D (attached). The geographic area examined in the TIA must include the following, at a minimum:

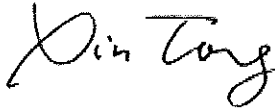
1. All CMP arterial monitoring intersections, including monitored freeway on/off-ramp intersections, where the proposed project will add 50 or more trips during either the a.m. or p.m. weekday peak hour (of adjacent street traffic).
2. If CMP arterial segments are being analyzed rather than intersections, the study area must include all segments where the proposed project will add 50 or more peak hour trips (total of both directions). Within the study area, the TIA must analyze at least one segment between monitored CMP intersections.
3. Mainline freeway-monitoring locations where the project will add 150 or more trips, in either direction, during either the a.m. or p.m. weekday peak hour.
4. Caltrans must also be consulted through the NOP process to identify other specific locations to be analyzed on the state highway system.

The CMP TIA requirement also contains two separate impact studies covering roadways and transit, as outlined in Sections D.8.1 – D.9.4. If the TIA identifies no facilities for study based on the criteria above, no further traffic analysis is required. However, projects must still consider transit impacts. For all CMP TIA requirements please see the attached guidelines.

If you have any questions regarding this response, please contact Xin Tong at 213-922-8804 or by email at DevReview@metro.net. LACMTA looks forward to reviewing the Draft EIR. Please send it to the following address:

LACMTA Development Review  
One Gateway Plaza MS 99-23-4  
Los Angeles, CA 90012-2952

Sincerely,

A handwritten signature in black ink that reads "Xin Tong". The signature is written in a cursive, flowing style.

Xin Tong  
Development Review Coordinator, Countywide Planning

Attachment: CMP Appendix D: Guidelines for CMP Transportation Impact Analysis

# GUIDELINES FOR CMP TRANSPORTATION IMPACT ANALYSIS

*Important Notice to User: This section provides detailed travel statistics for the Los Angeles area which will be updated on an ongoing basis. Updates will be distributed to all local jurisdictions when available. In order to ensure that impact analyses reflect the best available information, lead agencies may also contact MTA at the time of study initiation. Please contact MTA staff to request the most recent release of "Baseline Travel Data for CMP TIAs."*

## D.1 OBJECTIVE OF GUIDELINES

The following guidelines are intended to assist local agencies in evaluating impacts of land use decisions on the Congestion Management Program (CMP) system, through preparation of a regional transportation impact analysis (TIA). The following are the basic objectives of these guidelines:

- Promote consistency in the studies conducted by different jurisdictions, while maintaining flexibility for the variety of project types which could be affected by these guidelines.
- Establish procedures which can be implemented within existing project review processes and without ongoing review by MTA.
- Provide guidelines which can be implemented immediately, with the full intention of subsequent review and possible revision.

These guidelines are based on specific requirements of the Congestion Management Program, and travel data sources available specifically for Los Angeles County. References are listed in Section D.10 which provide additional information on possible methodologies and available resources for conducting TIAs.

## D.2 GENERAL PROVISIONS

Exhibit D-7 provides the model resolution that local jurisdictions adopted containing CMP TIA procedures in 1993. TIA requirements should be fulfilled within the existing environmental review process, extending local traffic impact studies to include impacts to the regional system. In order to monitor activities affected by these requirements, Notices of Preparation (NOPs) must be submitted to MTA as a responsible agency. Formal MTA approval of individual TIAs is not required.

The following sections describe CMP TIA requirements in detail. In general, the competing objectives of consistency & flexibility have been addressed by specifying standard, or minimum, requirements and requiring documentation when a TIA varies from these standards.

### D.3 PROJECTS SUBJECT TO ANALYSIS

In general a CMP TIA is required for all projects required to prepare an Environmental Impact Report (EIR) based on local determination. A TIA is not required if the lead agency for the EIR finds that traffic is not a significant issue, and does not require local or regional traffic impact analysis in the EIR. Please refer to Chapter 5 for more detailed information.

CMP TIA guidelines, particularly intersection analyses, are largely geared toward analysis of projects where land use types and design details are known. Where likely land uses are not defined (such as where project descriptions are limited to zoning designation and parcel size with no information on access location), the level of detail in the TIA may be adjusted accordingly. This may apply, for example, to some redevelopment areas and citywide general plans, or community level specific plans. In such cases, where project definition is insufficient for meaningful intersection level of service analysis, CMP arterial segment analysis may substitute for intersection analysis.

### D.4 STUDY AREA

The geographic area examined in the TIA must include the following, at a minimum:

- All CMP arterial monitoring intersections, including monitored freeway on- or off-ramp intersections, where the proposed project will add 50 or more trips during either the AM or PM weekday peak hours (of adjacent street traffic).
- If CMP arterial segments are being analyzed rather than intersections (see Section D.3), the study area must include all segments where the proposed project will add 50 or more peak hour trips (total of both directions). Within the study area, the TIA must analyze at least one segment between monitored CMP intersections.
- Mainline freeway monitoring locations where the project will add 150 or more trips, in either direction, during either the AM or PM weekday peak hours.
- Caltrans must also be consulted through the Notice of Preparation (NOP) process to identify other specific locations to be analyzed on the state highway system.

If the TIA identifies no facilities for study based on these criteria, no further traffic analysis is required. However, projects must still consider transit impacts (Section D.8.4).

### D.5 BACKGROUND TRAFFIC CONDITIONS

The following sections describe the procedures for documenting and estimating background, or non-project related traffic conditions. Note that for the purpose of a TIA, these background estimates must include traffic from all sources without regard to the exemptions specified in CMP statute (e.g., traffic generated by the provision of low and very low income housing, or trips originating outside Los Angeles County. Refer to Chapter 5, Section 5.2.3 for a complete list of exempted projects).

**D.5.1 Existing Traffic Conditions.** Existing traffic volumes and levels of service (LOS) on the CMP highway system within the study area must be documented. Traffic counts must

be less than one year old at the time the study is initiated, and collected in accordance with CMP highway monitoring requirements (see Appendix A). Section D.8.1 describes TIA LOS calculation requirements in greater detail. Freeway traffic volume and LOS data provided by Caltrans is also provided in Appendix A.

**D.5.2 Selection of Horizon Year and Background Traffic Growth.** Horizon year(s) selection is left to the lead agency, based on individual characteristics of the project being analyzed. In general, the horizon year should reflect a realistic estimate of the project completion date. For large developments phased over several years, review of intermediate milestones prior to buildout should also be considered.

At a minimum, horizon year background traffic growth estimates must use the generalized growth factors shown in Exhibit D-1. These growth factors are based on regional modeling efforts, and estimate the general effect of cumulative development and other socioeconomic changes on traffic throughout the region. Beyond this minimum, selection among the various methodologies available to estimate horizon year background traffic in greater detail is left to the lead agency. Suggested approaches include consultation with the jurisdiction in which the intersection under study is located, in order to obtain more detailed traffic estimates based on ongoing development in the vicinity.

## D.6 PROPOSED PROJECT TRAFFIC GENERATION

Traffic generation estimates must conform to the procedures of the current edition of Trip Generation, by the Institute of Transportation Engineers (ITE). If an alternative methodology is used, the basis for this methodology must be fully documented.

Increases in site traffic generation may be reduced for existing land uses to be removed, if the existing use was operating during the year the traffic counts were collected. Current traffic generation should be substantiated by actual driveway counts; however, if infeasible, traffic may be estimated based on a methodology consistent with that used for the proposed use.

Regional transportation impact analysis also requires consideration of trip lengths. Total site traffic generation must therefore be divided into work and non-work-related trip purposes in order to reflect observed trip length differences. Exhibit D-2 provides factors which indicate trip purpose breakdowns for various land use types.

For lead agencies who also participate in CMP highway monitoring, it is recommended that any traffic counts on CMP facilities needed to prepare the TIA should be done in the manner outlined in Chapter 2 and Appendix A. If the TIA traffic counts are taken within one year of the deadline for submittal of CMP highway monitoring data, the local jurisdiction would save the cost of having to conduct the traffic counts twice.

## D.7 TRIP DISTRIBUTION

For trip distribution by direct/manual assignment, generalized trip distribution factors are provided in Exhibit D-3, based on regional modeling efforts. These factors indicate Regional Statistical Area (RSA)-level tripmaking for work and non-work trip purposes.

(These RSAs are illustrated in Exhibit D-4.) For locations where it is difficult to determine the project site RSA, census tract/RSA correspondence tables are available from MTA.

Exhibit D-5 describes a general approach to applying the preceding factors. Project trip distribution must be consistent with these trip distribution and purpose factors; the basis for variation must be documented.

Local agency travel demand models disaggregated from the SCAG regional model are presumed to conform to this requirement, as long as the trip distribution functions are consistent with the regional distribution patterns. For retail commercial developments, alternative trip distribution factors may be appropriate based on the market area for the specific planned use. Such market area analysis must clearly identify the basis for the trip distribution pattern expected.

## D.8 IMPACT ANALYSIS

CMP Transportation Impact Analyses contain two separate impact studies covering roadways and transit. Section Nos. D.8.1-D.8.3 cover required roadway analysis while Section No. D.8.4 covers the required transit impact analysis. Section Nos. D.9.1-D.9.4 define the requirement for discussion and evaluation of alternative mitigation measures.

**D.8.1 Intersection Level of Service Analysis.** The LA County CMP recognizes that individual jurisdictions have wide ranging experience with LOS analysis, reflecting the variety of community characteristics, traffic controls and street standards throughout the county. As a result, the CMP acknowledges the possibility that no single set of assumptions should be mandated for all TIAs within the county.

However, in order to promote consistency in the TIAs prepared by different jurisdictions, CMP TIAs must conduct intersection LOS calculations using either of the following methods:

- The Intersection Capacity Utilization (ICU) method as specified for CMP highway monitoring (see Appendix A); or
- The Critical Movement Analysis (CMA) / Circular 212 method.

Variation from the standard assumptions under either of these methods for circumstances at particular intersections must be fully documented.

TIAs using the 1985 or 1994 Highway Capacity Manual (HCM) operational analysis must provide converted volume-to-capacity based LOS values, as specified for CMP highway monitoring in Appendix A.

**D.8.2 Arterial Segment Analysis.** For TIAs involving arterial segment analysis, volume-to-capacity ratios must be calculated for each segment and LOS values assigned using the V/C-LOS equivalency specified for arterial intersections. A capacity of 800 vehicles per hour per through traffic lane must be used, unless localized conditions necessitate alternative values to approximate current intersection congestion levels.



**D.8.3 Freeway Segment (Mainline) Analysis.** For the purpose of CMP TIAs, a simplified analysis of freeway impacts is required. This analysis consists of a demand-to-capacity calculation for the affected segments, and is indicated in Exhibit D-6.

**D.8.4 Transit Impact Review.** CMP transit analysis requirements are met by completing and incorporating into an EIR the following transit impact analysis:

- Evidence that affected transit operators received the Notice of Preparation.
- A summary of existing transit services in the project area. Include local fixed-route services within a ¼ mile radius of the project; express bus routes within a 2 mile radius of the project, and; rail service within a 2 mile radius of the project.
- Information on trip generation and mode assignment for both AM and PM peak hour periods as well as for daily periods. Trips assigned to transit will also need to be calculated for the same peak hour and daily periods. Peak hours are defined as 7:30-8:30 AM and 4:30-5:30 PM. Both “peak hour” and “daily” refer to average weekdays, unless special seasonal variations are expected. If expected, seasonal variations should be described.
- Documentation of the assumption and analyses that were used to determine the number and percent of trips assigned to transit. Trips assigned to transit may be calculated along the following guidelines:
  - Multiply the total trips generated by 1.4 to convert vehicle trips to person trips;
  - For each time period, multiply the result by one of the following factors:
    - 3.5% of Total Person Trips Generated for most cases, except:
      - 10% primarily Residential within 1/4 mile of a CMP transit center
      - 15% primarily Commercial within 1/4 mile of a CMP transit center
      - 7% primarily Residential within 1/4 mile of a CMP multi-modal transportation center
      - 9% primarily Commercial within 1/4 mile of a CMP multi-modal transportation center
      - 5% primarily Residential within 1/4 mile of a CMP transit corridor
      - 7% primarily Commercial within 1/4 mile of a CMP transit corridor
      - 0% if no fixed route transit services operate within one mile of the project

To determine whether a project is primarily residential or commercial in nature, please refer to the CMP land use categories listed and defined in Appendix E, *Guidelines for New Development Activity Tracking and Self Certification*. For projects that are only partially within the above one-quarter mile radius, the base rate (3.5% of total trips generated) should be applied to all of the project buildings that touch the radius perimeter.

- Information on facilities and/or programs that will be incorporated in the development plan that will encourage public transit use. Include not only the jurisdiction’s TDM Ordinance measures, but other project specific measures.

- Analysis of expected project impacts on current and future transit services and proposed project mitigation measures, and;
- Selection of final mitigation measures remains at the discretion of the local jurisdiction/lead agency. Once a mitigation program is selected, the jurisdiction self-monitors implementation through the existing mitigation monitoring requirements of CEQA.

## D.9 IDENTIFICATION AND EVALUATION OF MITIGATION

**D.9.1 Criteria for Determining a Significant Impact.** For purposes of the CMP, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity ( $V/C \geq 0.02$ ), causing LOS F ( $V/C > 1.00$ ); if the facility is already at LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity ( $V/C \geq 0.02$ ). The lead agency may apply a more stringent criteria if desired.

**D.9.2 Identification of Mitigation.** Once the project has been determined to cause a significant impact, the lead agency must investigate measures which will mitigate the impact of the project. Mitigation measures proposed must clearly indicate the following:

- Cost estimates, indicating the fair share costs to mitigate the impact of the proposed project. If the improvement from a proposed mitigation measure will exceed the impact of the project, the TIA must indicate the proportion of total mitigation costs which is attributable to the project. This fulfills the statutory requirement to exclude the costs of mitigating inter-regional trips.
- Implementation responsibilities. Where the agency responsible for implementing mitigation is not the lead agency, the TIA must document consultation with the implementing agency regarding project impacts, mitigation feasibility and responsibility.

Final selection of mitigation measures remains at the discretion of the lead agency. The TIA must, however, provide a summary of impacts and mitigation measures. Once a mitigation program is selected, the jurisdiction self-monitors implementation through the mitigation monitoring requirements contained in CEQA.

**D.9.3 Project Contribution to Planned Regional Improvements.** If the TIA concludes that project impacts will be mitigated by anticipated regional transportation improvements, such as rail transit or high occupancy vehicle facilities, the TIA must document:

- Any project contribution to the improvement, and
- The means by which trips generated at the site will access the regional facility.

**D.9.4 Transportation Demand Management (TDM).** If the TIA concludes or assumes that project impacts will be reduced through the implementation of TDM measures, the TIA must document specific actions to be implemented by the project which substantiate these conclusions.

**D.10 REFERENCES**

1. *Traffic Access and Impact Studies for Site Development: A Recommended Practice*, Institute of Transportation Engineers, 1991.
2. *Trip Generation*, 5th Edition, Institute of Transportation Engineers, 1991.
3. *Travel Forecast Summary: 1987 Base Model - Los Angeles Regional Transportation Study (LARTS)*, California State Department of Transportation (Caltrans), February 1990.
4. *Traffic Study Guidelines*, City of Los Angeles Department of Transportation (LADOT), July 1991.
5. *Traffic/Access Guidelines*, County of Los Angeles Department of Public Works.
6. *Building Better Communities*, Sourcebook, Coordinating Land Use and Transit Planning, American Public Transit Association.
7. *Design Guidelines for Bus Facilities*, Orange County Transit District, 2nd Edition, November 1987.
8. *Coordination of Transit and Project Development*, Orange County Transit District, 1988.
9. *Encouraging Public Transportation Through Effective Land Use Actions*, Municipality of Metropolitan Seattle, May 1987.



**515 West Broadway Mixed Use  
South Coast Air Basin, Winter**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	18.20	1000sqft	0.00	18,200.00	0
Other Non-Asphalt Surfaces	22.00	1000sqft	0.51	22,000.00	0
Parking Lot	331.00	Space	2.98	132,400.00	0
Apartments Mid Rise	180.00	Dwelling Unit	4.74	180,000.00	463

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	9			<b>Operational Year</b>	2018
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	630.89	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - 463 residents based on a conservative assumption  
 Commercial/Retail - Mixed Use, therefore lot acreage has 0 value  
 Other Non-Asphalt Surface include common open space area

Construction Phase - Per Project Description, Demolition would occur over a 1 month period, Site prep/Grading would occur over 4-6 month period, bulding construction 11 months

Demolition - 11,720 cubic yards of demo material is approximately 4,643 square feet

Grading -

Woodstoves - No woodstoves, No fireplaces

Construction Off-road Equipment Mitigation - Examples of Constructin-Related Fugitive Dust Emissions Control Measures  
 Source: SCAQMD, 2012

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	10.00	30.00
tblConstructionPhase	PhaseEndDate	10/11/2016	9/13/2016
tblConstructionPhase	PhaseStartDate	8/17/2016	7/20/2016
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	153.00	0.00
tblFireplaces	NumberNoFireplace	18.00	0.00
tblFireplaces	NumberWood	9.00	0.00
tblGrading	MaterialExported	0.00	32,344.00
tblLandUse	LotAcreage	0.42	0.00
tblLandUse	Population	515.00	463.00

tblProjectCharacteristics	OperationalYear	2014	2018
tblWoodstoves	NumberCatalytic	9.00	0.00
tblWoodstoves	NumberNoncatalytic	9.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

## 2.0 Emissions Summary

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## 2.2 Overall Operational

### Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.1123	0.1739	14.9937	7.9000e-004		0.0818	0.0818		0.0818	0.0818	0.0000	26.8207	26.8207	0.0267	0.0000	27.3818
Energy	0.0586	0.5043	0.2367	3.2000e-003		0.0405	0.0405		0.0405	0.0405		639.6834	639.6834	0.0123	0.0117	643.5764
Mobile	5.0206	14.8601	56.1983	0.1521	10.7091	0.2175	10.9265	2.8614	0.2004	3.0618		12,571.0865	12,571.0865	0.4795		12,581.1559
<b>Total</b>	<b>13.1916</b>	<b>15.5384</b>	<b>71.4287</b>	<b>0.1561</b>	<b>10.7091</b>	<b>0.3397</b>	<b>11.0488</b>	<b>2.8614</b>	<b>0.3226</b>	<b>3.1840</b>	<b>0.0000</b>	<b>13,237.5906</b>	<b>13,237.5906</b>	<b>0.5185</b>	<b>0.0117</b>	<b>13,252.1142</b>

### Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.1123	0.1739	14.9937	7.9000e-004		0.0818	0.0818		0.0818	0.0818	0.0000	26.8207	26.8207	0.0267	0.0000	27.3818
Energy	0.0512	0.4407	0.2065	2.8000e-003		0.0354	0.0354		0.0354	0.0354		559.0333	559.0333	0.0107	0.0103	562.4354
Mobile	4.6822	12.1816	47.7686	0.1211	8.4707	0.1746	8.6453	2.2633	0.1609	2.4242		10,008.8286	10,008.8286	0.3872		10,016.9590
<b>Total</b>	<b>12.8457</b>	<b>12.7962</b>	<b>62.9687</b>	<b>0.1247</b>	<b>8.4707</b>	<b>0.2918</b>	<b>8.7624</b>	<b>2.2633</b>	<b>0.2781</b>	<b>2.5414</b>	<b>0.0000</b>	<b>10,594.6825</b>	<b>10,594.6825</b>	<b>0.4246</b>	<b>0.0103</b>	<b>10,606.7762</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	2.62	17.65	11.84	20.10	20.90	14.11	20.69	20.90	13.82	20.18	0.00	19.97	19.97	18.11	12.62	19.96

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/1/2015	4/28/2015	5	20	
2	Site Preparation	Site Preparation	4/29/2015	6/9/2015	5	30	
3	Grading	Grading	6/10/2015	9/1/2015	5	60	
4	Building Construction	Building Construction	9/2/2015	7/19/2016	5	230	
5	Paving	Paving	7/20/2016	8/16/2016	5	20	
6	Architectural Coating	Architectural Coating	7/20/2016	9/13/2016	5	40	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 30

Acres of Paving: 0

Residential Indoor: 364,500; Residential Outdoor: 121,500; Non-Residential Indoor: 66,258; Non-Residential Outdoor: 22,086 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	21.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,043.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	200.00	48.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	40.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

### 3.2 Demolition - 2015

#### 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					0.2285	0.0000	0.2285	0.0346	0.0000	0.0346			0.0000			0.0000
Off-Road	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858		4,127.1934	4,127.1934	1.1188		4,150.6886
<b>Total</b>	<b>4.5083</b>	<b>48.3629</b>	<b>36.0738</b>	<b>0.0399</b>	<b>0.2285</b>	<b>2.4508</b>	<b>2.6793</b>	<b>0.0346</b>	<b>2.2858</b>	<b>2.3204</b>		<b>4,127.1934</b>	<b>4,127.1934</b>	<b>1.1188</b>		<b>4,150.6886</b>

#### 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	0.0217	0.3413	0.2506	7.7000e-004	0.0183	5.6400e-003	0.0239	5.0100e-003	5.1900e-003	0.0102		78.8185	78.8185	6.3000e-004		78.8318
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0951	0.9938	1.9900e-003	0.1677	1.4800e-003	0.1691	0.0445	1.3500e-003	0.0458		173.3466	173.3466	9.9400e-003		173.5553
<b>Total</b>	<b>0.0926</b>	<b>0.4364</b>	<b>1.2444</b>	<b>2.7600e-003</b>	<b>0.1860</b>	<b>7.1200e-003</b>	<b>0.1931</b>	<b>0.0495</b>	<b>6.5400e-003</b>	<b>0.0560</b>		<b>252.1651</b>	<b>252.1651</b>	<b>0.0106</b>		<b>252.3871</b>

**3.2 Demolition - 2015****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					0.0847	0.0000	0.0847	0.0128	0.0000	0.0128			0.0000			0.0000
Off-Road	0.9478	18.7614	25.2649	0.0399		0.8817	0.8817		0.8817	0.8817	0.0000	4,127.193 4	4,127.193 4	1.1188		4,150.688 6
<b>Total</b>	<b>0.9478</b>	<b>18.7614</b>	<b>25.2649</b>	<b>0.0399</b>	<b>0.0847</b>	<b>0.8817</b>	<b>0.9663</b>	<b>0.0128</b>	<b>0.8817</b>	<b>0.8945</b>	<b>0.0000</b>	<b>4,127.193 4</b>	<b>4,127.193 4</b>	<b>1.1188</b>		<b>4,150.688 6</b>

**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	0.0217	0.3413	0.2506	7.7000e-004	0.0183	5.6400e-003	0.0239	5.0100e-003	5.1900e-003	0.0102		78.8185	78.8185	6.3000e-004		78.8318
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0951	0.9938	1.9900e-003	0.1677	1.4800e-003	0.1691	0.0445	1.3500e-003	0.0458		173.3466	173.3466	9.9400e-003		173.5553
<b>Total</b>	<b>0.0926</b>	<b>0.4364</b>	<b>1.2444</b>	<b>2.7600e-003</b>	<b>0.1860</b>	<b>7.1200e-003</b>	<b>0.1931</b>	<b>0.0495</b>	<b>6.5400e-003</b>	<b>0.0560</b>		<b>252.1651</b>	<b>252.1651</b>	<b>0.0106</b>		<b>252.3871</b>

### 3.3 Site Preparation - 2015

#### 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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412		4,111.744 4	4,111.744 4	1.2275		4,137.522 5
<b>Total</b>	<b>5.2609</b>	<b>56.8897</b>	<b>42.6318</b>	<b>0.0391</b>	<b>18.0663</b>	<b>3.0883</b>	<b>21.1545</b>	<b>9.9307</b>	<b>2.8412</b>	<b>12.7719</b>		<b>4,111.744 4</b>	<b>4,111.744 4</b>	<b>1.2275</b>		<b>4,137.522 5</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0850	0.1141	1.1926	2.3900e-003	0.2012	1.7700e-003	0.2030	0.0534	1.6200e-003	0.0550		208.0159	208.0159	0.0119		208.2664
<b>Total</b>	<b>0.0850</b>	<b>0.1141</b>	<b>1.1926</b>	<b>2.3900e-003</b>	<b>0.2012</b>	<b>1.7700e-003</b>	<b>0.2030</b>	<b>0.0534</b>	<b>1.6200e-003</b>	<b>0.0550</b>		<b>208.0159</b>	<b>208.0159</b>	<b>0.0119</b>		<b>208.2664</b>



### 3.3 Site Preparation - 2015

#### 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					6.6936	0.0000	6.6936	3.6793	0.0000	3.6793			0.0000			0.0000
Off-Road	0.9515	19.4584	23.4003	0.0391		0.9611	0.9611		0.9611	0.9611	0.0000	4,111.744 4	4,111.744 4	1.2275		4,137.522 4
<b>Total</b>	<b>0.9515</b>	<b>19.4584</b>	<b>23.4003</b>	<b>0.0391</b>	<b>6.6936</b>	<b>0.9611</b>	<b>7.6546</b>	<b>3.6793</b>	<b>0.9611</b>	<b>4.6404</b>	<b>0.0000</b>	<b>4,111.744 4</b>	<b>4,111.744 4</b>	<b>1.2275</b>		<b>4,137.522 4</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0850	0.1141	1.1926	2.3900e-003	0.2012	1.7700e-003	0.2030	0.0534	1.6200e-003	0.0550		208.0159	208.0159	0.0119		208.2664
<b>Total</b>	<b>0.0850</b>	<b>0.1141</b>	<b>1.1926</b>	<b>2.3900e-003</b>	<b>0.2012</b>	<b>1.7700e-003</b>	<b>0.2030</b>	<b>0.0534</b>	<b>1.6200e-003</b>	<b>0.0550</b>		<b>208.0159</b>	<b>208.0159</b>	<b>0.0119</b>		<b>208.2664</b>

**3.4 Grading - 2015**

**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					6.6133	0.0000	6.6133	3.3767	0.0000	3.3767			0.0000			0.0000
Off-Road	3.8327	40.4161	26.6731	0.0298		2.3284	2.3284		2.1421	2.1421		3,129.0158	3,129.0158	0.9341		3,148.6328
<b>Total</b>	<b>3.8327</b>	<b>40.4161</b>	<b>26.6731</b>	<b>0.0298</b>	<b>6.6133</b>	<b>2.3284</b>	<b>8.9417</b>	<b>3.3767</b>	<b>2.1421</b>	<b>5.5188</b>		<b>3,129.0158</b>	<b>3,129.0158</b>	<b>0.9341</b>		<b>3,148.6328</b>

**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	1.3926	21.9008	16.0798	0.0497	1.1736	0.3621	1.5358	0.3214	0.3331	0.6544		5,058.1472	5,058.1472	0.0406		5,058.9987
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0951	0.9938	1.9900e-003	0.1677	1.4800e-003	0.1691	0.0445	1.3500e-003	0.0458		173.3466	173.3466	9.9400e-003		173.5553
<b>Total</b>	<b>1.4634</b>	<b>21.9959</b>	<b>17.0736</b>	<b>0.0517</b>	<b>1.3413</b>	<b>0.3636</b>	<b>1.7049</b>	<b>0.3658</b>	<b>0.3344</b>	<b>0.7003</b>		<b>5,231.4937</b>	<b>5,231.4937</b>	<b>0.0505</b>		<b>5,232.5540</b>

### 3.4 Grading - 2015

#### 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					2.4502	0.0000	2.4502	1.2511	0.0000	1.2511			0.0000			0.0000
Off-Road	0.7250	14.8148	20.3762	0.0298		0.7854	0.7854		0.7854	0.7854	0.0000	3,129.0158	3,129.0158	0.9341		3,148.6328
<b>Total</b>	<b>0.7250</b>	<b>14.8148</b>	<b>20.3762</b>	<b>0.0298</b>	<b>2.4502</b>	<b>0.7854</b>	<b>3.2357</b>	<b>1.2511</b>	<b>0.7854</b>	<b>2.0365</b>	<b>0.0000</b>	<b>3,129.0158</b>	<b>3,129.0158</b>	<b>0.9341</b>		<b>3,148.6328</b>

#### 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	1.3926	21.9008	16.0798	0.0497	1.1736	0.3621	1.5358	0.3214	0.3331	0.6544		5,058.1472	5,058.1472	0.0406		5,058.9987
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0951	0.9938	1.9900e-003	0.1677	1.4800e-003	0.1691	0.0445	1.3500e-003	0.0458		173.3466	173.3466	9.9400e-003		173.5553
<b>Total</b>	<b>1.4634</b>	<b>21.9959</b>	<b>17.0736</b>	<b>0.0517</b>	<b>1.3413</b>	<b>0.3636</b>	<b>1.7049</b>	<b>0.3658</b>	<b>0.3344</b>	<b>0.7003</b>		<b>5,231.4937</b>	<b>5,231.4937</b>	<b>0.0505</b>		<b>5,232.5540</b>

### 3.5 Building Construction - 2015

#### 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	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904		2,689.577 1	2,689.577 1	0.6748		2,703.748 3
<b>Total</b>	<b>3.6591</b>	<b>30.0299</b>	<b>18.7446</b>	<b>0.0268</b>		<b>2.1167</b>	<b>2.1167</b>		<b>1.9904</b>	<b>1.9904</b>		<b>2,689.577 1</b>	<b>2,689.577 1</b>	<b>0.6748</b>		<b>2,703.748 3</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4983	4.8394	6.1714	0.0104	0.2999	0.0826	0.3824	0.0854	0.0759	0.1613		1,050.155 0	1,050.155 0	8.5500e- 003		1,050.334 7
Worker	0.9448	1.2682	13.2509	0.0266	2.2355	0.0197	2.2552	0.5929	0.0180	0.6109		2,311.287 4	2,311.287 4	0.1326		2,314.070 9
<b>Total</b>	<b>1.4431</b>	<b>6.1077</b>	<b>19.4223</b>	<b>0.0370</b>	<b>2.5354</b>	<b>0.1022</b>	<b>2.6376</b>	<b>0.6783</b>	<b>0.0939</b>	<b>0.7722</b>		<b>3,361.442 4</b>	<b>3,361.442 4</b>	<b>0.1411</b>		<b>3,364.405 6</b>

### 3.5 Building Construction - 2015

#### 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	0.6712	14.1741	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,689.577 1	2,689.577 1	0.6748		2,703.748 3
<b>Total</b>	<b>0.6712</b>	<b>14.1741</b>	<b>17.8156</b>	<b>0.0268</b>		<b>0.9016</b>	<b>0.9016</b>		<b>0.9016</b>	<b>0.9016</b>	<b>0.0000</b>	<b>2,689.577 1</b>	<b>2,689.577 1</b>	<b>0.6748</b>		<b>2,703.748 3</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4983	4.8394	6.1714	0.0104	0.2999	0.0826	0.3824	0.0854	0.0759	0.1613		1,050.155 0	1,050.155 0	8.5500e- 003		1,050.334 7
Worker	0.9448	1.2682	13.2509	0.0266	2.2355	0.0197	2.2552	0.5929	0.0180	0.6109		2,311.287 4	2,311.287 4	0.1326		2,314.070 9
<b>Total</b>	<b>1.4431</b>	<b>6.1077</b>	<b>19.4223</b>	<b>0.0370</b>	<b>2.5354</b>	<b>0.1022</b>	<b>2.6376</b>	<b>0.6783</b>	<b>0.0939</b>	<b>0.7722</b>		<b>3,361.442 4</b>	<b>3,361.442 4</b>	<b>0.1411</b>		<b>3,364.405 6</b>

### 3.5 Building Construction - 2016

#### 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	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
<b>Total</b>	<b>3.4062</b>	<b>28.5063</b>	<b>18.5066</b>	<b>0.0268</b>		<b>1.9674</b>	<b>1.9674</b>		<b>1.8485</b>	<b>1.8485</b>		<b>2,669.2864</b>	<b>2,669.2864</b>	<b>0.6620</b>		<b>2,683.1890</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4395	4.2739	5.7467	0.0104	0.3000	0.0684	0.3684	0.0854	0.0629	0.1483		1,038.5733	1,038.5733	7.7400e-003		1,038.7358
Worker	0.8512	1.1438	11.9600	0.0266	2.2355	0.0187	2.2542	0.5929	0.0172	0.6101		2,231.3903	2,231.3903	0.1220		2,233.9516
<b>Total</b>	<b>1.2907</b>	<b>5.4177</b>	<b>17.7067</b>	<b>0.0369</b>	<b>2.5355</b>	<b>0.0871</b>	<b>2.6226</b>	<b>0.6783</b>	<b>0.0801</b>	<b>0.7584</b>		<b>3,269.9637</b>	<b>3,269.9637</b>	<b>0.1297</b>		<b>3,272.6874</b>

### 3.5 Building Construction - 2016

#### 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	0.6712	14.1741	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
<b>Total</b>	<b>0.6712</b>	<b>14.1741</b>	<b>17.8156</b>	<b>0.0268</b>		<b>0.9016</b>	<b>0.9016</b>		<b>0.9016</b>	<b>0.9016</b>	<b>0.0000</b>	<b>2,669.2864</b>	<b>2,669.2864</b>	<b>0.6620</b>		<b>2,683.1890</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4395	4.2739	5.7467	0.0104	0.3000	0.0684	0.3684	0.0854	0.0629	0.1483		1,038.5733	1,038.5733	7.7400e-003		1,038.7358
Worker	0.8512	1.1438	11.9600	0.0266	2.2355	0.0187	2.2542	0.5929	0.0172	0.6101		2,231.3903	2,231.3903	0.1220		2,233.9516
<b>Total</b>	<b>1.2907</b>	<b>5.4177</b>	<b>17.7067</b>	<b>0.0369</b>	<b>2.5355</b>	<b>0.0871</b>	<b>2.6226</b>	<b>0.6783</b>	<b>0.0801</b>	<b>0.7584</b>		<b>3,269.9637</b>	<b>3,269.9637</b>	<b>0.1297</b>		<b>3,272.6874</b>

### 3.6 Paving - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.3904					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.4802</b>	<b>22.3859</b>	<b>14.8176</b>	<b>0.0223</b>		<b>1.2610</b>	<b>1.2610</b>		<b>1.1601</b>	<b>1.1601</b>		<b>2,316.3767</b>	<b>2,316.3767</b>	<b>0.6987</b>		<b>2,331.0495</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0858	0.8970	1.9900e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		167.3543	167.3543	9.1500e-003		167.5464
<b>Total</b>	<b>0.0638</b>	<b>0.0858</b>	<b>0.8970</b>	<b>1.9900e-003</b>	<b>0.1677</b>	<b>1.4000e-003</b>	<b>0.1691</b>	<b>0.0445</b>	<b>1.2900e-003</b>	<b>0.0458</b>		<b>167.3543</b>	<b>167.3543</b>	<b>9.1500e-003</b>		<b>167.5464</b>



### 3.6 Paving - 2016

#### 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	0.5490	11.0645	16.9276	0.0223		0.5982	0.5982		0.5982	0.5982	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.3904					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9394</b>	<b>11.0645</b>	<b>16.9276</b>	<b>0.0223</b>		<b>0.5982</b>	<b>0.5982</b>		<b>0.5982</b>	<b>0.5982</b>	<b>0.0000</b>	<b>2,316.3767</b>	<b>2,316.3767</b>	<b>0.6987</b>		<b>2,331.0495</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0858	0.8970	1.9900e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		167.3543	167.3543	9.1500e-003		167.5464
<b>Total</b>	<b>0.0638</b>	<b>0.0858</b>	<b>0.8970</b>	<b>1.9900e-003</b>	<b>0.1677</b>	<b>1.4000e-003</b>	<b>0.1691</b>	<b>0.0445</b>	<b>1.2900e-003</b>	<b>0.0458</b>		<b>167.3543</b>	<b>167.3543</b>	<b>9.1500e-003</b>		<b>167.5464</b>

### 3.7 Architectural Coating - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Archit. Coating	60.7892					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332			282.1449
<b>Total</b>	<b>61.1576</b>	<b>2.3722</b>	<b>1.8839</b>	<b>2.9700e-003</b>		<b>0.1966</b>	<b>0.1966</b>		<b>0.1966</b>	<b>0.1966</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0332</b>			<b>282.1449</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.1702	0.2288	2.3920	5.3100e-003	0.4471	3.7400e-003	0.4508	0.1186	3.4400e-003	0.1220		446.2781	446.2781	0.0244			446.7903
<b>Total</b>	<b>0.1702</b>	<b>0.2288</b>	<b>2.3920</b>	<b>5.3100e-003</b>	<b>0.4471</b>	<b>3.7400e-003</b>	<b>0.4508</b>	<b>0.1186</b>	<b>3.4400e-003</b>	<b>0.1220</b>		<b>446.2781</b>	<b>446.2781</b>	<b>0.0244</b>			<b>446.7903</b>

### 3.7 Architectural Coating - 2016

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	60.7892					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0332		282.1449
<b>Total</b>	<b>60.8486</b>	<b>1.3570</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>0.0951</b>	<b>0.0951</b>		<b>0.0951</b>	<b>0.0951</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0332</b>		<b>282.1449</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1702	0.2288	2.3920	5.3100e-003	0.4471	3.7400e-003	0.4508	0.1186	3.4400e-003	0.1220		446.2781	446.2781	0.0244		446.7903
<b>Total</b>	<b>0.1702</b>	<b>0.2288</b>	<b>2.3920</b>	<b>5.3100e-003</b>	<b>0.4471</b>	<b>3.7400e-003</b>	<b>0.4508</b>	<b>0.1186</b>	<b>3.4400e-003</b>	<b>0.1220</b>		<b>446.2781</b>	<b>446.2781</b>	<b>0.0244</b>		<b>446.7903</b>

### 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

- Increase Density
- Increase Diversity
- Improve Walkability Design
- Improve Destination Accessibility
- Increase Transit Accessibility
- Integrate Below Market Rate Housing
- Improve Pedestrian Network

	ROG	NOx	CO	SO2	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	4.6822	12.1816	47.7686	0.1211	8.4707	0.1746	8.6453	2.2633	0.1609	2.4242		10,008.82 86	10,008.82 86	0.3872		10,016.95 90
Unmitigated	5.0206	14.8601	56.1983	0.1521	10.7091	0.2175	10.9265	2.8614	0.2004	3.0618		12,571.08 65	12,571.08 65	0.4795		12,581.15 59

### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,186.20	1,288.80	1092.60	4,057,819	3,209,655
General Office Building	200.38	43.13	17.84	489,147	386,905
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
<b>Total</b>	<b>1,386.58</b>	<b>1,331.93</b>	<b>1,110.44</b>	<b>4,546,966</b>	<b>3,596,561</b>

### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.512137	0.059943	0.180601	0.139123	0.042256	0.006647	0.016115	0.031670	0.001940	0.002502	0.004362	0.000588	0.002117

### 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	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	0.0512	0.4407	0.2065	2.8000e-003		0.0354	0.0354		0.0354	0.0354		559.0333	559.0333	0.0107	0.0103	562.4354
NaturalGas Unmitigated	0.0586	0.5043	0.2367	3.2000e-003		0.0405	0.0405		0.0405	0.0405		639.6834	639.6834	0.0123	0.0117	643.5764

### 5.2 Energy by Land Use - NaturalGas

#### Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	545.003	5.8800e-003	0.0534	0.0449	3.2000e-004		4.0600e-003	4.0600e-003		4.0600e-003	4.0600e-003		64.1180	64.1180	1.2300e-003	1.1800e-003	64.5082
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	4892.31	0.0528	0.4509	0.1919	2.8800e-003		0.0365	0.0365		0.0365	0.0365		575.5655	575.5655	0.0110	0.0106	579.0682
<b>Total</b>		<b>0.0586</b>	<b>0.5043</b>	<b>0.2367</b>	<b>3.2000e-003</b>		<b>0.0405</b>	<b>0.0405</b>		<b>0.0405</b>	<b>0.0405</b>		<b>639.6834</b>	<b>639.6834</b>	<b>0.0123</b>	<b>0.0117</b>	<b>643.5764</b>

### 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/yr	lb/day										lb/day						
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	4.28561	0.0462	0.3950	0.1681	2.5200e-003		0.0319	0.0319		0.0319	0.0319		504.1898	504.1898	9.6600e-003	9.2400e-003	507.2582	
General Office Building	0.466169	5.0300e-003	0.0457	0.0384	2.7000e-004		3.4700e-003	3.4700e-003		3.4700e-003	3.4700e-003		54.8435	54.8435	1.0500e-003	1.0100e-003	55.1772	
<b>Total</b>		<b>0.0513</b>	<b>0.4407</b>	<b>0.2065</b>	<b>2.7900e-003</b>		<b>0.0354</b>	<b>0.0354</b>		<b>0.0354</b>	<b>0.0354</b>		<b>559.0333</b>	<b>559.0333</b>	<b>0.0107</b>	<b>0.0103</b>	<b>562.4354</b>	

### 6.0 Area Detail

#### 6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.1123	0.1739	14.9937	7.9000e-004		0.0818	0.0818		0.0818	0.0818	0.0000	26.8207	26.8207	0.0267	0.0000	27.3818
Unmitigated	8.1123	0.1739	14.9937	7.9000e-004		0.0818	0.0818		0.0818	0.0818	0.0000	26.8207	26.8207	0.0267	0.0000	27.3818

## 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	0.6662					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.9815					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4647	0.1739	14.9937	7.9000e-004		0.0818	0.0818		0.0818	0.0818		26.8207	26.8207	0.0267		27.3818
<b>Total</b>	<b>8.1123</b>	<b>0.1739</b>	<b>14.9937</b>	<b>7.9000e-004</b>		<b>0.0818</b>	<b>0.0818</b>		<b>0.0818</b>	<b>0.0818</b>	<b>0.0000</b>	<b>26.8207</b>	<b>26.8207</b>	<b>0.0267</b>	<b>0.0000</b>	<b>27.3818</b>



## 6.2 Area by SubCategory

### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6662					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.9815					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4647	0.1739	14.9937	7.9000e-004		0.0818	0.0818		0.0818	0.0818		26.8207	26.8207	0.0267		27.3818
<b>Total</b>	<b>8.1123</b>	<b>0.1739</b>	<b>14.9937</b>	<b>7.9000e-004</b>		<b>0.0818</b>	<b>0.0818</b>		<b>0.0818</b>	<b>0.0818</b>	<b>0.0000</b>	<b>26.8207</b>	<b>26.8207</b>	<b>0.0267</b>	<b>0.0000</b>	<b>27.3818</b>

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

## 9.0 Operational Offroad

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

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**515 West Broadway Mixed Use**  
**South Coast Air Basin, Summer**

## 1.0 Project Characteristics

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### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	18.20	1000sqft	0.00	18,200.00	0
Other Non-Asphalt Surfaces	22.00	1000sqft	0.51	22,000.00	0
Parking Lot	331.00	Space	2.98	132,400.00	0
Apartments Mid Rise	180.00	Dwelling Unit	4.74	180,000.00	463

### 1.2 Other Project Characteristics

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	9			<b>Operational Year</b>	2018
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	630.89	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 463 residents based on a conservative assumption  
 Commercial/Retail - Mixed Use, therefore lot acreage has 0 value  
 Other Non-Asphalt Surface include common open space area

Construction Phase - Per Project Description, Demolition would occur over a 1 month period, Site prep/Grading would occur over 4-6 month period, bulding construction 11 months

Demolition - 11,720 cubic yards of demo material is approximately 4,643 square feet

Grading -

Woodstoves - No woodstoves, No fireplaces

Construction Off-road Equipment Mitigation - Examples of Constructin-Related Fugitive Dust Emissions Control Measures  
 Source: SCAQMD, 2012

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	10.00	30.00
tblConstructionPhase	PhaseEndDate	10/11/2016	9/13/2016
tblConstructionPhase	PhaseStartDate	8/17/2016	7/20/2016
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	153.00	0.00
tblFireplaces	NumberNoFireplace	18.00	0.00
tblFireplaces	NumberWood	9.00	0.00
tblGrading	MaterialExported	0.00	32,344.00
tblLandUse	LotAcreage	0.42	0.00
tblLandUse	Population	515.00	463.00

tblProjectCharacteristics	OperationalYear	2014	2018
tblWoodstoves	NumberCatalytic	9.00	0.00
tblWoodstoves	NumberNoncatalytic	9.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

## 2.0 Emissions Summary

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**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.1123	0.1739	14.9937	7.9000e-004		0.0818	0.0818		0.0818	0.0818	0.0000	26.8207	26.8207	0.0267	0.0000	27.3818
Energy	0.0586	0.5043	0.2367	3.2000e-003		0.0405	0.0405		0.0405	0.0405		639.6834	639.6834	0.0123	0.0117	643.5764
Mobile	4.8760	14.1360	57.2546	0.1601	10.7091	0.2167	10.9258	2.8614	0.1997	3.0611		13,205.2944	13,205.2944	0.4791		13,215.3549
<b>Total</b>	<b>13.0470</b>	<b>14.8142</b>	<b>72.4850</b>	<b>0.1641</b>	<b>10.7091</b>	<b>0.3390</b>	<b>11.0480</b>	<b>2.8614</b>	<b>0.3219</b>	<b>3.1833</b>	<b>0.0000</b>	<b>13,871.7985</b>	<b>13,871.7985</b>	<b>0.5181</b>	<b>0.0117</b>	<b>13,886.3132</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.1123	0.1739	14.9937	7.9000e-004		0.0818	0.0818		0.0818	0.0818	0.0000	26.8207	26.8207	0.0267	0.0000	27.3818
Energy	0.0512	0.4407	0.2065	2.8000e-003		0.0354	0.0354		0.0354	0.0354		559.0333	559.0333	0.0107	0.0103	562.4354
Mobile	4.5254	11.6054	47.8519	0.1275	8.4707	0.1738	8.6445	2.2633	0.1602	2.4235		10,513.2225	10,513.2225	0.3867		10,521.3439
<b>Total</b>	<b>12.6890</b>	<b>12.2200</b>	<b>63.0521</b>	<b>0.1311</b>	<b>8.4707</b>	<b>0.2910</b>	<b>8.7617</b>	<b>2.2633</b>	<b>0.2773</b>	<b>2.5407</b>	<b>0.0000</b>	<b>11,099.0764</b>	<b>11,099.0764</b>	<b>0.4242</b>	<b>0.0103</b>	<b>11,111.1612</b>



	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	2.74	17.51	13.01	20.13	20.90	14.15	20.69	20.90	13.85	20.19	0.00	19.99	19.99	18.12	12.62	19.98

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/1/2015	4/28/2015	5	20	
2	Site Preparation	Site Preparation	4/29/2015	6/9/2015	5	30	
3	Grading	Grading	6/10/2015	9/1/2015	5	60	
4	Building Construction	Building Construction	9/2/2015	7/19/2016	5	230	
5	Paving	Paving	7/20/2016	8/16/2016	5	20	
6	Architectural Coating	Architectural Coating	7/20/2016	9/13/2016	5	40	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 30

Acres of Paving: 0

Residential Indoor: 364,500; Residential Outdoor: 121,500; Non-Residential Indoor: 66,258; Non-Residential Outdoor: 22,086 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	21.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,043.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	200.00	48.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	40.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

### 3.2 Demolition - 2015

#### 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					0.2285	0.0000	0.2285	0.0346	0.0000	0.0346			0.0000				0.0000
Off-Road	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858		4,127.1934	4,127.1934	1.1188			4,150.6886
<b>Total</b>	<b>4.5083</b>	<b>48.3629</b>	<b>36.0738</b>	<b>0.0399</b>	<b>0.2285</b>	<b>2.4508</b>	<b>2.6793</b>	<b>0.0346</b>	<b>2.2858</b>	<b>2.3204</b>		<b>4,127.1934</b>	<b>4,127.1934</b>	<b>1.1188</b>			<b>4,150.6886</b>

#### 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	0.0205	0.3293	0.2209	7.8000e-004	0.0183	5.6200e-003	0.0239	5.0100e-003	5.1700e-003	0.0102		79.0056	79.0056	6.2000e-004			79.0187
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0692	0.0866	1.0745	2.1300e-003	0.1677	1.4800e-003	0.1691	0.0445	1.3500e-003	0.0458		184.8048	184.8048	9.9400e-003			185.0135
<b>Total</b>	<b>0.0897</b>	<b>0.4159</b>	<b>1.2954</b>	<b>2.9100e-003</b>	<b>0.1860</b>	<b>7.1000e-003</b>	<b>0.1931</b>	<b>0.0495</b>	<b>6.5200e-003</b>	<b>0.0560</b>		<b>263.8104</b>	<b>263.8104</b>	<b>0.0106</b>			<b>264.0322</b>

### 3.2 Demolition - 2015

#### 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					0.0847	0.0000	0.0847	0.0128	0.0000	0.0128			0.0000			0.0000
Off-Road	0.9478	18.7614	25.2649	0.0399		0.8817	0.8817		0.8817	0.8817	0.0000	4,127.1934	4,127.1934	1.1188		4,150.6886
<b>Total</b>	<b>0.9478</b>	<b>18.7614</b>	<b>25.2649</b>	<b>0.0399</b>	<b>0.0847</b>	<b>0.8817</b>	<b>0.9663</b>	<b>0.0128</b>	<b>0.8817</b>	<b>0.8945</b>	<b>0.0000</b>	<b>4,127.1934</b>	<b>4,127.1934</b>	<b>1.1188</b>		<b>4,150.6886</b>

#### 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	0.0205	0.3293	0.2209	7.8000e-004	0.0183	5.6200e-003	0.0239	5.0100e-003	5.1700e-003	0.0102		79.0056	79.0056	6.2000e-004		79.0187
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0692	0.0866	1.0745	2.1300e-003	0.1677	1.4800e-003	0.1691	0.0445	1.3500e-003	0.0458		184.8048	184.8048	9.9400e-003		185.0135
<b>Total</b>	<b>0.0897</b>	<b>0.4159</b>	<b>1.2954</b>	<b>2.9100e-003</b>	<b>0.1860</b>	<b>7.1000e-003</b>	<b>0.1931</b>	<b>0.0495</b>	<b>6.5200e-003</b>	<b>0.0560</b>		<b>263.8104</b>	<b>263.8104</b>	<b>0.0106</b>		<b>264.0322</b>

### 3.3 Site Preparation - 2015

#### 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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412		4,111.744 4	4,111.744 4	1.2275		4,137.522 5
<b>Total</b>	<b>5.2609</b>	<b>56.8897</b>	<b>42.6318</b>	<b>0.0391</b>	<b>18.0663</b>	<b>3.0883</b>	<b>21.1545</b>	<b>9.9307</b>	<b>2.8412</b>	<b>12.7719</b>		<b>4,111.744 4</b>	<b>4,111.744 4</b>	<b>1.2275</b>		<b>4,137.522 5</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0830	0.1039	1.2894	2.5500e-003	0.2012	1.7700e-003	0.2030	0.0534	1.6200e-003	0.0550		221.7657	221.7657	0.0119		222.0162
<b>Total</b>	<b>0.0830</b>	<b>0.1039</b>	<b>1.2894</b>	<b>2.5500e-003</b>	<b>0.2012</b>	<b>1.7700e-003</b>	<b>0.2030</b>	<b>0.0534</b>	<b>1.6200e-003</b>	<b>0.0550</b>		<b>221.7657</b>	<b>221.7657</b>	<b>0.0119</b>		<b>222.0162</b>

### 3.3 Site Preparation - 2015

#### 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					6.6936	0.0000	6.6936	3.6793	0.0000	3.6793			0.0000			0.0000
Off-Road	0.9515	19.4584	23.4003	0.0391		0.9611	0.9611		0.9611	0.9611	0.0000	4,111.744 4	4,111.744 4	1.2275		4,137.522 4
<b>Total</b>	<b>0.9515</b>	<b>19.4584</b>	<b>23.4003</b>	<b>0.0391</b>	<b>6.6936</b>	<b>0.9611</b>	<b>7.6546</b>	<b>3.6793</b>	<b>0.9611</b>	<b>4.6404</b>	<b>0.0000</b>	<b>4,111.744 4</b>	<b>4,111.744 4</b>	<b>1.2275</b>		<b>4,137.522 4</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0830	0.1039	1.2894	2.5500e-003	0.2012	1.7700e-003	0.2030	0.0534	1.6200e-003	0.0550		221.7657	221.7657	0.0119		222.0162
<b>Total</b>	<b>0.0830</b>	<b>0.1039</b>	<b>1.2894</b>	<b>2.5500e-003</b>	<b>0.2012</b>	<b>1.7700e-003</b>	<b>0.2030</b>	<b>0.0534</b>	<b>1.6200e-003</b>	<b>0.0550</b>		<b>221.7657</b>	<b>221.7657</b>	<b>0.0119</b>		<b>222.0162</b>

### 3.4 Grading - 2015

#### 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					6.6133	0.0000	6.6133	3.3767	0.0000	3.3767			0.0000			0.0000
Off-Road	3.8327	40.4161	26.6731	0.0298		2.3284	2.3284		2.1421	2.1421		3,129.0158	3,129.0158	0.9341		3,148.6328
<b>Total</b>	<b>3.8327</b>	<b>40.4161</b>	<b>26.6731</b>	<b>0.0298</b>	<b>6.6133</b>	<b>2.3284</b>	<b>8.9417</b>	<b>3.3767</b>	<b>2.1421</b>	<b>5.5188</b>		<b>3,129.0158</b>	<b>3,129.0158</b>	<b>0.9341</b>		<b>3,148.6328</b>

#### 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	1.3155	21.1337	14.1772	0.0498	1.1736	0.3609	1.5345	0.3214	0.3319	0.6533		5,070.1530	5,070.1530	0.0401		5,070.9940
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0692	0.0866	1.0745	2.1300e-003	0.1677	1.4800e-003	0.1691	0.0445	1.3500e-003	0.0458		184.8048	184.8048	9.9400e-003		185.0135
<b>Total</b>	<b>1.3847</b>	<b>21.2202</b>	<b>15.2516</b>	<b>0.0519</b>	<b>1.3413</b>	<b>0.3624</b>	<b>1.7037</b>	<b>0.3658</b>	<b>0.3333</b>	<b>0.6991</b>		<b>5,254.9577</b>	<b>5,254.9577</b>	<b>0.0500</b>		<b>5,256.0075</b>



### 3.4 Grading - 2015

#### 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					2.4502	0.0000	2.4502	1.2511	0.0000	1.2511			0.0000			0.0000
Off-Road	0.7250	14.8148	20.3762	0.0298		0.7854	0.7854		0.7854	0.7854	0.0000	3,129.0158	3,129.0158	0.9341		3,148.6328
<b>Total</b>	<b>0.7250</b>	<b>14.8148</b>	<b>20.3762</b>	<b>0.0298</b>	<b>2.4502</b>	<b>0.7854</b>	<b>3.2357</b>	<b>1.2511</b>	<b>0.7854</b>	<b>2.0365</b>	<b>0.0000</b>	<b>3,129.0158</b>	<b>3,129.0158</b>	<b>0.9341</b>		<b>3,148.6328</b>

#### 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	1.3155	21.1337	14.1772	0.0498	1.1736	0.3609	1.5345	0.3214	0.3319	0.6533		5,070.1530	5,070.1530	0.0401		5,070.9940
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0692	0.0866	1.0745	2.1300e-003	0.1677	1.4800e-003	0.1691	0.0445	1.3500e-003	0.0458		184.8048	184.8048	9.9400e-003		185.0135
<b>Total</b>	<b>1.3847</b>	<b>21.2202</b>	<b>15.2516</b>	<b>0.0519</b>	<b>1.3413</b>	<b>0.3624</b>	<b>1.7037</b>	<b>0.3658</b>	<b>0.3333</b>	<b>0.6991</b>		<b>5,254.9577</b>	<b>5,254.9577</b>	<b>0.0500</b>		<b>5,256.0075</b>

### 3.5 Building Construction - 2015

#### 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	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904		2,689.577 1	2,689.577 1	0.6748		2,703.748 3
<b>Total</b>	<b>3.6591</b>	<b>30.0299</b>	<b>18.7446</b>	<b>0.0268</b>		<b>2.1167</b>	<b>2.1167</b>		<b>1.9904</b>	<b>1.9904</b>		<b>2,689.577 1</b>	<b>2,689.577 1</b>	<b>0.6748</b>		<b>2,703.748 3</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4536	4.7168	5.2033	0.0105	0.2999	0.0816	0.3815	0.0854	0.0750	0.1604		1,058.988 7	1,058.988 7	8.3200e- 003		1,059.163 4
Worker	0.9224	1.1543	14.3263	0.0283	2.2355	0.0197	2.2552	0.5929	0.0180	0.6109		2,464.063 4	2,464.063 4	0.1326		2,466.847 0
<b>Total</b>	<b>1.3760</b>	<b>5.8711</b>	<b>19.5296</b>	<b>0.0388</b>	<b>2.5354</b>	<b>0.1012</b>	<b>2.6367</b>	<b>0.6783</b>	<b>0.0930</b>	<b>0.7713</b>		<b>3,523.052 1</b>	<b>3,523.052 1</b>	<b>0.1409</b>		<b>3,526.010 4</b>

### 3.5 Building Construction - 2015

#### 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	0.6712	14.1741	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,689.577 1	2,689.577 1	0.6748		2,703.748 3
<b>Total</b>	<b>0.6712</b>	<b>14.1741</b>	<b>17.8156</b>	<b>0.0268</b>		<b>0.9016</b>	<b>0.9016</b>		<b>0.9016</b>	<b>0.9016</b>	<b>0.0000</b>	<b>2,689.577 1</b>	<b>2,689.577 1</b>	<b>0.6748</b>		<b>2,703.748 3</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4536	4.7168	5.2033	0.0105	0.2999	0.0816	0.3815	0.0854	0.0750	0.1604		1,058.988 7	1,058.988 7	8.3200e- 003		1,059.163 4
Worker	0.9224	1.1543	14.3263	0.0283	2.2355	0.0197	2.2552	0.5929	0.0180	0.6109		2,464.063 4	2,464.063 4	0.1326		2,466.847 0
<b>Total</b>	<b>1.3760</b>	<b>5.8711</b>	<b>19.5296</b>	<b>0.0388</b>	<b>2.5354</b>	<b>0.1012</b>	<b>2.6367</b>	<b>0.6783</b>	<b>0.0930</b>	<b>0.7713</b>		<b>3,523.052 1</b>	<b>3,523.052 1</b>	<b>0.1409</b>		<b>3,526.010 4</b>

### 3.5 Building Construction - 2016

#### 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	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
<b>Total</b>	<b>3.4062</b>	<b>28.5063</b>	<b>18.5066</b>	<b>0.0268</b>		<b>1.9674</b>	<b>1.9674</b>		<b>1.8485</b>	<b>1.8485</b>		<b>2,669.2864</b>	<b>2,669.2864</b>	<b>0.6620</b>		<b>2,683.1890</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4010	4.1686	4.7878	0.0105	0.3000	0.0677	0.3677	0.0854	0.0623	0.1477		1,047.3502	1,047.3502	7.5100e-003		1,047.5080
Worker	0.8326	1.0413	12.9727	0.0283	2.2355	0.0187	2.2542	0.5929	0.0172	0.6101		2,379.1651	2,379.1651	0.1220		2,381.7264
<b>Total</b>	<b>1.2336</b>	<b>5.2099</b>	<b>17.7605</b>	<b>0.0388</b>	<b>2.5355</b>	<b>0.0864</b>	<b>2.6219</b>	<b>0.6783</b>	<b>0.0794</b>	<b>0.7577</b>		<b>3,426.5153</b>	<b>3,426.5153</b>	<b>0.1295</b>		<b>3,429.2344</b>

### 3.5 Building Construction - 2016

#### 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	0.6712	14.1741	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
<b>Total</b>	<b>0.6712</b>	<b>14.1741</b>	<b>17.8156</b>	<b>0.0268</b>		<b>0.9016</b>	<b>0.9016</b>		<b>0.9016</b>	<b>0.9016</b>	<b>0.0000</b>	<b>2,669.2864</b>	<b>2,669.2864</b>	<b>0.6620</b>		<b>2,683.1890</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4010	4.1686	4.7878	0.0105	0.3000	0.0677	0.3677	0.0854	0.0623	0.1477		1,047.3502	1,047.3502	7.5100e-003		1,047.5080
Worker	0.8326	1.0413	12.9727	0.0283	2.2355	0.0187	2.2542	0.5929	0.0172	0.6101		2,379.1651	2,379.1651	0.1220		2,381.7264
<b>Total</b>	<b>1.2336</b>	<b>5.2099</b>	<b>17.7605</b>	<b>0.0388</b>	<b>2.5355</b>	<b>0.0864</b>	<b>2.6219</b>	<b>0.6783</b>	<b>0.0794</b>	<b>0.7577</b>		<b>3,426.5153</b>	<b>3,426.5153</b>	<b>0.1295</b>		<b>3,429.2344</b>

### 3.6 Paving - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.3904					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.4802</b>	<b>22.3859</b>	<b>14.8176</b>	<b>0.0223</b>		<b>1.2610</b>	<b>1.2610</b>		<b>1.1601</b>	<b>1.1601</b>		<b>2,316.3767</b>	<b>2,316.3767</b>	<b>0.6987</b>		<b>2,331.0495</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0624	0.0781	0.9730	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		178.4374	178.4374	9.1500e-003		178.6295
<b>Total</b>	<b>0.0624</b>	<b>0.0781</b>	<b>0.9730</b>	<b>2.1200e-003</b>	<b>0.1677</b>	<b>1.4000e-003</b>	<b>0.1691</b>	<b>0.0445</b>	<b>1.2900e-003</b>	<b>0.0458</b>		<b>178.4374</b>	<b>178.4374</b>	<b>9.1500e-003</b>		<b>178.6295</b>

### 3.6 Paving - 2016

#### 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	0.5490	11.0645	16.9276	0.0223		0.5982	0.5982		0.5982	0.5982	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.3904					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9394</b>	<b>11.0645</b>	<b>16.9276</b>	<b>0.0223</b>		<b>0.5982</b>	<b>0.5982</b>		<b>0.5982</b>	<b>0.5982</b>	<b>0.0000</b>	<b>2,316.3767</b>	<b>2,316.3767</b>	<b>0.6987</b>		<b>2,331.0495</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0624	0.0781	0.9730	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		178.4374	178.4374	9.1500e-003		178.6295
<b>Total</b>	<b>0.0624</b>	<b>0.0781</b>	<b>0.9730</b>	<b>2.1200e-003</b>	<b>0.1677</b>	<b>1.4000e-003</b>	<b>0.1691</b>	<b>0.0445</b>	<b>1.2900e-003</b>	<b>0.0458</b>		<b>178.4374</b>	<b>178.4374</b>	<b>9.1500e-003</b>		<b>178.6295</b>

### 3.7 Architectural Coating - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	60.7892					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
<b>Total</b>	<b>61.1576</b>	<b>2.3722</b>	<b>1.8839</b>	<b>2.9700e-003</b>		<b>0.1966</b>	<b>0.1966</b>		<b>0.1966</b>	<b>0.1966</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0332</b>		<b>282.1449</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1665	0.2083	2.5945	5.6700e-003	0.4471	3.7400e-003	0.4508	0.1186	3.4400e-003	0.1220		475.8330	475.8330	0.0244		476.3453
<b>Total</b>	<b>0.1665</b>	<b>0.2083</b>	<b>2.5945</b>	<b>5.6700e-003</b>	<b>0.4471</b>	<b>3.7400e-003</b>	<b>0.4508</b>	<b>0.1186</b>	<b>3.4400e-003</b>	<b>0.1220</b>		<b>475.8330</b>	<b>475.8330</b>	<b>0.0244</b>		<b>476.3453</b>



### 3.7 Architectural Coating - 2016

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	60.7892					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0332		282.1449
<b>Total</b>	<b>60.8486</b>	<b>1.3570</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>0.0951</b>	<b>0.0951</b>		<b>0.0951</b>	<b>0.0951</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0332</b>		<b>282.1449</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1665	0.2083	2.5945	5.6700e-003	0.4471	3.7400e-003	0.4508	0.1186	3.4400e-003	0.1220		475.8330	475.8330	0.0244		476.3453
<b>Total</b>	<b>0.1665</b>	<b>0.2083</b>	<b>2.5945</b>	<b>5.6700e-003</b>	<b>0.4471</b>	<b>3.7400e-003</b>	<b>0.4508</b>	<b>0.1186</b>	<b>3.4400e-003</b>	<b>0.1220</b>		<b>475.8330</b>	<b>475.8330</b>	<b>0.0244</b>		<b>476.3453</b>

### 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

- Increase Density
- Increase Diversity
- Improve Walkability Design
- Improve Destination Accessibility
- Increase Transit Accessibility
- Integrate Below Market Rate Housing
- Improve Pedestrian Network

	ROG	NOx	CO	SO2	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	4.5254	11.6054	47.8519	0.1275	8.4707	0.1738	8.6445	2.2633	0.1602	2.4235		10,513.22 25	10,513.22 25	0.3867		10,521.34 39
Unmitigated	4.8760	14.1360	57.2546	0.1601	10.7091	0.2167	10.9258	2.8614	0.1997	3.0611		13,205.29 44	13,205.29 44	0.4791		13,215.35 49

### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,186.20	1,288.80	1092.60	4,057,819	3,209,655
General Office Building	200.38	43.13	17.84	489,147	386,905
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
<b>Total</b>	<b>1,386.58</b>	<b>1,331.93</b>	<b>1,110.44</b>	<b>4,546,966</b>	<b>3,596,561</b>

### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.512137	0.059943	0.180601	0.139123	0.042256	0.006647	0.016115	0.031670	0.001940	0.002502	0.004362	0.000588	0.002117

### 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
NaturalGas Mitigated	0.0512	0.4407	0.2065	2.8000e-003		0.0354	0.0354		0.0354	0.0354		559.0333	559.0333	0.0107	0.0103	562.4354
NaturalGas Unmitigated	0.0586	0.5043	0.2367	3.2000e-003		0.0405	0.0405		0.0405	0.0405		639.6834	639.6834	0.0123	0.0117	643.5764

### 5.2 Energy by Land Use - NaturalGas

#### Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	545.003	5.8800e-003	0.0534	0.0449	3.2000e-004		4.0600e-003	4.0600e-003		4.0600e-003	4.0600e-003		64.1180	64.1180	1.2300e-003	1.1800e-003	64.5082
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	4892.31	0.0528	0.4509	0.1919	2.8800e-003		0.0365	0.0365		0.0365	0.0365		575.5655	575.5655	0.0110	0.0106	579.0682
<b>Total</b>		<b>0.0586</b>	<b>0.5043</b>	<b>0.2367</b>	<b>3.2000e-003</b>		<b>0.0405</b>	<b>0.0405</b>		<b>0.0405</b>	<b>0.0405</b>		<b>639.6834</b>	<b>639.6834</b>	<b>0.0123</b>	<b>0.0117</b>	<b>643.5764</b>

### 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/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	4.28561	0.0462	0.3950	0.1681	2.5200e-003		0.0319	0.0319		0.0319	0.0319		504.1898	504.1898	9.6600e-003	9.2400e-003	507.2582
General Office Building	0.466169	5.0300e-003	0.0457	0.0384	2.7000e-004		3.4700e-003	3.4700e-003		3.4700e-003	3.4700e-003		54.8435	54.8435	1.0500e-003	1.0100e-003	55.1772
<b>Total</b>		<b>0.0513</b>	<b>0.4407</b>	<b>0.2065</b>	<b>2.7900e-003</b>		<b>0.0354</b>	<b>0.0354</b>		<b>0.0354</b>	<b>0.0354</b>		<b>559.0333</b>	<b>559.0333</b>	<b>0.0107</b>	<b>0.0103</b>	<b>562.4354</b>

### 6.0 Area Detail

#### 6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.1123	0.1739	14.9937	7.9000e-004		0.0818	0.0818		0.0818	0.0818	0.0000	26.8207	26.8207	0.0267	0.0000	27.3818
Unmitigated	8.1123	0.1739	14.9937	7.9000e-004		0.0818	0.0818		0.0818	0.0818	0.0000	26.8207	26.8207	0.0267	0.0000	27.3818

## 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	0.6662					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.9815					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4647	0.1739	14.9937	7.9000e-004		0.0818	0.0818		0.0818	0.0818		26.8207	26.8207	0.0267		27.3818
<b>Total</b>	<b>8.1123</b>	<b>0.1739</b>	<b>14.9937</b>	<b>7.9000e-004</b>		<b>0.0818</b>	<b>0.0818</b>		<b>0.0818</b>	<b>0.0818</b>	<b>0.0000</b>	<b>26.8207</b>	<b>26.8207</b>	<b>0.0267</b>	<b>0.0000</b>	<b>27.3818</b>

## 6.2 Area by SubCategory

### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6662					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.9815					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4647	0.1739	14.9937	7.9000e-004		0.0818	0.0818		0.0818	0.0818		26.8207	26.8207	0.0267		27.3818
<b>Total</b>	<b>8.1123</b>	<b>0.1739</b>	<b>14.9937</b>	<b>7.9000e-004</b>		<b>0.0818</b>	<b>0.0818</b>		<b>0.0818</b>	<b>0.0818</b>	<b>0.0000</b>	<b>26.8207</b>	<b>26.8207</b>	<b>0.0267</b>	<b>0.0000</b>	<b>27.3818</b>

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

## 9.0 Operational Offroad

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

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**515 West Broadway Mixed Use  
South Coast Air Basin, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	18.20	1000sqft	0.00	18,200.00	0
Other Non-Asphalt Surfaces	22.00	1000sqft	0.51	22,000.00	0
Parking Lot	331.00	Space	2.98	132,400.00	0
Apartments Mid Rise	180.00	Dwelling Unit	4.74	180,000.00	463

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	9			<b>Operational Year</b>	2018
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	630.89	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - 463 residents based on a conservative assumption  
 Commercial/Retail - Mixed Use, therefore lot acreage has 0 value  
 Other Non-Asphalt Surface include common open space area

Construction Phase - Per Project Description, Demolition would occur over a 1 month period, Site prep/Grading would occur over 4-6 month period, bulding construction 11 months

Demolition - 11,720 cubic yards of demo material is approximately 4,643 square feet

Grading -

Woodstoves - No woodstoves, No fireplaces

Construction Off-road Equipment Mitigation - Examples of Constructin-Related Fugitive Dust Emissions Control Measures  
 Source: SCAQMD, 2012

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	10.00	30.00
tblConstructionPhase	PhaseEndDate	10/11/2016	9/13/2016
tblConstructionPhase	PhaseStartDate	8/17/2016	7/20/2016
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	153.00	0.00
tblFireplaces	NumberNoFireplace	18.00	0.00
tblFireplaces	NumberWood	9.00	0.00
tblGrading	MaterialExported	0.00	32,344.00
tblLandUse	LotAcreage	0.42	0.00
tblLandUse	Population	515.00	463.00

tblProjectCharacteristics	OperationalYear	2014	2018
tblWoodstoves	NumberCatalytic	9.00	0.00
tblWoodstoves	NumberNoncatalytic	9.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

## 2.0 Emissions Summary

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**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	1.4538	0.0217	1.8742	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0414	3.0414	3.0300e-003	0.0000	3.1051
Energy	0.0107	0.0920	0.0432	5.8000e-004		7.3900e-003	7.3900e-003		7.3900e-003	7.3900e-003	0.0000	397.3708	397.3708	0.0154	4.7100e-003	399.1560
Mobile	0.7826	2.4831	9.3022	0.0252	1.7232	0.0355	1.7587	0.4611	0.0327	0.4938	0.0000	1,889.4192	1,889.4192	0.0712	0.0000	1,890.9136
Waste						0.0000	0.0000		0.0000	0.0000	20.2443	0.0000	20.2443	1.1964	0.0000	45.3688
Water						0.0000	0.0000		0.0000	0.0000	4.7469	85.5626	90.3095	0.4915	0.0123	104.4518
<b>Total</b>	<b>2.2471</b>	<b>2.5969</b>	<b>11.2196</b>	<b>0.0259</b>	<b>1.7232</b>	<b>0.0531</b>	<b>1.7763</b>	<b>0.4611</b>	<b>0.0503</b>	<b>0.5115</b>	<b>24.9912</b>	<b>2,375.3940</b>	<b>2,400.3852</b>	<b>1.7775</b>	<b>0.0170</b>	<b>2,442.9951</b>

## 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	1.4538	0.0217	1.8742	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0414	3.0414	3.0300e-003	0.0000	3.1051
Energy	9.3500e-003	0.0804	0.0377	5.1000e-004		6.4600e-003	6.4600e-003		6.4600e-003	6.4600e-003	0.0000	330.7835	330.7835	0.0127	3.9600e-003	332.2791
Mobile	0.7265	2.0349	7.8826	0.0201	1.3630	0.0285	1.3915	0.3647	0.0263	0.3910	0.0000	1,504.4217	1,504.4217	0.0575	0.0000	1,505.6282
Waste						0.0000	0.0000		0.0000	0.0000	10.1221	0.0000	10.1221	0.5982	0.0000	22.6844
Water						0.0000	0.0000		0.0000	0.0000	3.7975	74.4121	78.2096	0.3934	9.9000e-003	89.5406
<b>Total</b>	<b>2.1897</b>	<b>2.1370</b>	<b>9.7944</b>	<b>0.0207</b>	<b>1.3630</b>	<b>0.0452</b>	<b>1.4082</b>	<b>0.3647</b>	<b>0.0430</b>	<b>0.4077</b>	<b>13.9197</b>	<b>1,912.6587</b>	<b>1,926.5784</b>	<b>1.0648</b>	<b>0.0139</b>	<b>1,953.2373</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>2.55</b>	<b>17.71</b>	<b>12.70</b>	<b>20.12</b>	<b>20.90</b>	<b>14.94</b>	<b>20.72</b>	<b>20.90</b>	<b>14.68</b>	<b>20.29</b>	<b>44.30</b>	<b>19.48</b>	<b>19.74</b>	<b>40.10</b>	<b>18.66</b>	<b>20.05</b>

## 3.0 Construction Detail

### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/1/2015	4/28/2015	5	20	
2	Site Preparation	Site Preparation	4/29/2015	6/9/2015	5	30	
3	Grading	Grading	6/10/2015	9/1/2015	5	60	
4	Building Construction	Building Construction	9/2/2015	7/19/2016	5	230	
5	Paving	Paving	7/20/2016	8/16/2016	5	20	
6	Architectural Coating	Architectural Coating	7/20/2016	9/13/2016	5	40	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 30**

**Acres of Paving: 0**

**Residential Indoor: 364,500; Residential Outdoor: 121,500; Non-Residential Indoor: 66,258; Non-Residential Outdoor: 22,086 (Architectural Coating – sqft)**

**OffRoad Equipment**



Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	21.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,043.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	200.00	48.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	40.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

### 3.2 Demolition - 2015

#### 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					2.2900e-003	0.0000	2.2900e-003	3.5000e-004	0.0000	3.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0451	0.4836	0.3607	4.0000e-004		0.0245	0.0245		0.0229	0.0229	0.0000	37.4413	37.4413	0.0102	0.0000	37.6544
<b>Total</b>	<b>0.0451</b>	<b>0.4836</b>	<b>0.3607</b>	<b>4.0000e-004</b>	<b>2.2900e-003</b>	<b>0.0245</b>	<b>0.0268</b>	<b>3.5000e-004</b>	<b>0.0229</b>	<b>0.0232</b>	<b>0.0000</b>	<b>37.4413</b>	<b>37.4413</b>	<b>0.0102</b>	<b>0.0000</b>	<b>37.6544</b>

#### 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	2.1000e-004	3.4700e-003	2.4700e-003	1.0000e-005	1.8000e-004	6.0000e-005	2.4000e-004	5.0000e-005	5.0000e-005	1.0000e-004	0.0000	0.7160	0.7160	1.0000e-005	0.0000	0.7161
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7000e-004	9.8000e-004	0.0102	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5970	1.5970	9.0000e-005	0.0000	1.5989
<b>Total</b>	<b>8.8000e-004</b>	<b>4.4500e-003</b>	<b>0.0126</b>	<b>3.0000e-005</b>	<b>1.8300e-003</b>	<b>7.0000e-005</b>	<b>1.9000e-003</b>	<b>4.9000e-004</b>	<b>6.0000e-005</b>	<b>5.5000e-004</b>	<b>0.0000</b>	<b>2.3131</b>	<b>2.3131</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>2.3151</b>

**3.2 Demolition - 2015****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					8.5000e-004	0.0000	8.5000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.4800e-003	0.1876	0.2527	4.0000e-004		8.8200e-003	8.8200e-003		8.8200e-003	8.8200e-003	0.0000	37.4412	37.4412	0.0102	0.0000	37.6544
<b>Total</b>	<b>9.4800e-003</b>	<b>0.1876</b>	<b>0.2527</b>	<b>4.0000e-004</b>	<b>8.5000e-004</b>	<b>8.8200e-003</b>	<b>9.6700e-003</b>	<b>1.3000e-004</b>	<b>8.8200e-003</b>	<b>8.9500e-003</b>	<b>0.0000</b>	<b>37.4412</b>	<b>37.4412</b>	<b>0.0102</b>	<b>0.0000</b>	<b>37.6544</b>

**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	2.1000e-004	3.4700e-003	2.4700e-003	1.0000e-005	1.8000e-004	6.0000e-005	2.4000e-004	5.0000e-005	5.0000e-005	1.0000e-004	0.0000	0.7160	0.7160	1.0000e-005	0.0000	0.7161
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7000e-004	9.8000e-004	0.0102	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5970	1.5970	9.0000e-005	0.0000	1.5989
<b>Total</b>	<b>8.8000e-004</b>	<b>4.4500e-003</b>	<b>0.0126</b>	<b>3.0000e-005</b>	<b>1.8300e-003</b>	<b>7.0000e-005</b>	<b>1.9000e-003</b>	<b>4.9000e-004</b>	<b>6.0000e-005</b>	<b>5.5000e-004</b>	<b>0.0000</b>	<b>2.3131</b>	<b>2.3131</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>2.3151</b>

### 3.3 Site Preparation - 2015

#### 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					0.2710	0.0000	0.2710	0.1490	0.0000	0.1490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0789	0.8533	0.6395	5.9000e-004		0.0463	0.0463		0.0426	0.0426	0.0000	55.9517	55.9517	0.0167	0.0000	56.3025
<b>Total</b>	<b>0.0789</b>	<b>0.8533</b>	<b>0.6395</b>	<b>5.9000e-004</b>	<b>0.2710</b>	<b>0.0463</b>	<b>0.3173</b>	<b>0.1490</b>	<b>0.0426</b>	<b>0.1916</b>	<b>0.0000</b>	<b>55.9517</b>	<b>55.9517</b>	<b>0.0167</b>	<b>0.0000</b>	<b>56.3025</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-003	1.7600e-003	0.0183	4.0000e-005	2.9600e-003	3.0000e-005	2.9900e-003	7.9000e-004	2.0000e-005	8.1000e-004	0.0000	2.8747	2.8747	1.6000e-004	0.0000	2.8781
<b>Total</b>	<b>1.2000e-003</b>	<b>1.7600e-003</b>	<b>0.0183</b>	<b>4.0000e-005</b>	<b>2.9600e-003</b>	<b>3.0000e-005</b>	<b>2.9900e-003</b>	<b>7.9000e-004</b>	<b>2.0000e-005</b>	<b>8.1000e-004</b>	<b>0.0000</b>	<b>2.8747</b>	<b>2.8747</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>2.8781</b>

### 3.3 Site Preparation - 2015

#### 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					0.1004	0.0000	0.1004	0.0552	0.0000	0.0552	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0143	0.2919	0.3510	5.9000e-004		0.0144	0.0144		0.0144	0.0144	0.0000	55.9516	55.9516	0.0167	0.0000	56.3024
<b>Total</b>	<b>0.0143</b>	<b>0.2919</b>	<b>0.3510</b>	<b>5.9000e-004</b>	<b>0.1004</b>	<b>0.0144</b>	<b>0.1148</b>	<b>0.0552</b>	<b>0.0144</b>	<b>0.0696</b>	<b>0.0000</b>	<b>55.9516</b>	<b>55.9516</b>	<b>0.0167</b>	<b>0.0000</b>	<b>56.3024</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-003	1.7600e-003	0.0183	4.0000e-005	2.9600e-003	3.0000e-005	2.9900e-003	7.9000e-004	2.0000e-005	8.1000e-004	0.0000	2.8747	2.8747	1.6000e-004	0.0000	2.8781
<b>Total</b>	<b>1.2000e-003</b>	<b>1.7600e-003</b>	<b>0.0183</b>	<b>4.0000e-005</b>	<b>2.9600e-003</b>	<b>3.0000e-005</b>	<b>2.9900e-003</b>	<b>7.9000e-004</b>	<b>2.0000e-005</b>	<b>8.1000e-004</b>	<b>0.0000</b>	<b>2.8747</b>	<b>2.8747</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>2.8781</b>

### 3.4 Grading - 2015

#### 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					0.1984	0.0000	0.1984	0.1013	0.0000	0.1013	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1150	1.2125	0.8002	8.9000e-004		0.0699	0.0699		0.0643	0.0643	0.0000	85.1579	85.1579	0.0254	0.0000	85.6918
<b>Total</b>	<b>0.1150</b>	<b>1.2125</b>	<b>0.8002</b>	<b>8.9000e-004</b>	<b>0.1984</b>	<b>0.0699</b>	<b>0.2683</b>	<b>0.1013</b>	<b>0.0643</b>	<b>0.1656</b>	<b>0.0000</b>	<b>85.1579</b>	<b>85.1579</b>	<b>0.0254</b>	<b>0.0000</b>	<b>85.6918</b>

#### 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	0.0411	0.6683	0.4746	1.4900e-003	0.0346	0.0108	0.0455	9.5000e-003	9.9700e-003	0.0195	0.0000	137.8497	137.8497	1.1000e-003	0.0000	137.8727
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-003	2.9400e-003	0.0305	6.0000e-005	4.9400e-003	4.0000e-005	4.9800e-003	1.3100e-003	4.0000e-005	1.3500e-003	0.0000	4.7911	4.7911	2.7000e-004	0.0000	4.7968
<b>Total</b>	<b>0.0431</b>	<b>0.6712</b>	<b>0.5051</b>	<b>1.5500e-003</b>	<b>0.0396</b>	<b>0.0109</b>	<b>0.0505</b>	<b>0.0108</b>	<b>0.0100</b>	<b>0.0208</b>	<b>0.0000</b>	<b>142.6408</b>	<b>142.6408</b>	<b>1.3700e-003</b>	<b>0.0000</b>	<b>142.6695</b>

### 3.4 Grading - 2015

#### 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					0.0735	0.0000	0.0735	0.0375	0.0000	0.0375	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0218	0.4444	0.6113	8.9000e-004		0.0236	0.0236		0.0236	0.0236	0.0000	85.1578	85.1578	0.0254	0.0000	85.6917
<b>Total</b>	<b>0.0218</b>	<b>0.4444</b>	<b>0.6113</b>	<b>8.9000e-004</b>	<b>0.0735</b>	<b>0.0236</b>	<b>0.0971</b>	<b>0.0375</b>	<b>0.0236</b>	<b>0.0611</b>	<b>0.0000</b>	<b>85.1578</b>	<b>85.1578</b>	<b>0.0254</b>	<b>0.0000</b>	<b>85.6917</b>

#### 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	0.0411	0.6683	0.4746	1.4900e-003	0.0346	0.0108	0.0455	9.5000e-003	9.9700e-003	0.0195	0.0000	137.8497	137.8497	1.1000e-003	0.0000	137.8727
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-003	2.9400e-003	0.0305	6.0000e-005	4.9400e-003	4.0000e-005	4.9800e-003	1.3100e-003	4.0000e-005	1.3500e-003	0.0000	4.7911	4.7911	2.7000e-004	0.0000	4.7968
<b>Total</b>	<b>0.0431</b>	<b>0.6712</b>	<b>0.5051</b>	<b>1.5500e-003</b>	<b>0.0396</b>	<b>0.0109</b>	<b>0.0505</b>	<b>0.0108</b>	<b>0.0100</b>	<b>0.0208</b>	<b>0.0000</b>	<b>142.6408</b>	<b>142.6408</b>	<b>1.3700e-003</b>	<b>0.0000</b>	<b>142.6695</b>



**3.5 Building Construction - 2015****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	0.1592	1.3063	0.8154	1.1700e-003		0.0921	0.0921		0.0866	0.0866	0.0000	106.1375	106.1375	0.0266	0.0000	106.6968
<b>Total</b>	<b>0.1592</b>	<b>1.3063</b>	<b>0.8154</b>	<b>1.1700e-003</b>		<b>0.0921</b>	<b>0.0921</b>		<b>0.0866</b>	<b>0.0866</b>	<b>0.0000</b>	<b>106.1375</b>	<b>106.1375</b>	<b>0.0266</b>	<b>0.0000</b>	<b>106.6968</b>

**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0211	0.2146	0.2618	4.5000e-004	0.0128	3.5700e-003	0.0164	3.6600e-003	3.2800e-003	6.9400e-003	0.0000	41.6440	41.6440	3.3000e-004	0.0000	41.6509
Worker	0.0388	0.0568	0.5900	1.1700e-003	0.0955	8.6000e-004	0.0963	0.0254	7.8000e-004	0.0261	0.0000	92.6282	92.6282	5.2300e-003	0.0000	92.7380
<b>Total</b>	<b>0.0598</b>	<b>0.2714</b>	<b>0.8518</b>	<b>1.6200e-003</b>	<b>0.1083</b>	<b>4.4300e-003</b>	<b>0.1127</b>	<b>0.0290</b>	<b>4.0600e-003</b>	<b>0.0331</b>	<b>0.0000</b>	<b>134.2722</b>	<b>134.2722</b>	<b>5.5600e-003</b>	<b>0.0000</b>	<b>134.3890</b>

### 3.5 Building Construction - 2015

#### 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	0.0292	0.6166	0.7750	1.1700e-003		0.0392	0.0392		0.0392	0.0392	0.0000	106.1374	106.1374	0.0266	0.0000	106.6966
<b>Total</b>	<b>0.0292</b>	<b>0.6166</b>	<b>0.7750</b>	<b>1.1700e-003</b>		<b>0.0392</b>	<b>0.0392</b>		<b>0.0392</b>	<b>0.0392</b>	<b>0.0000</b>	<b>106.1374</b>	<b>106.1374</b>	<b>0.0266</b>	<b>0.0000</b>	<b>106.6966</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0211	0.2146	0.2618	4.5000e-004	0.0128	3.5700e-003	0.0164	3.6600e-003	3.2800e-003	6.9400e-003	0.0000	41.6440	41.6440	3.3000e-004	0.0000	41.6509
Worker	0.0388	0.0568	0.5900	1.1700e-003	0.0955	8.6000e-004	0.0963	0.0254	7.8000e-004	0.0261	0.0000	92.6282	92.6282	5.2300e-003	0.0000	92.7380
<b>Total</b>	<b>0.0598</b>	<b>0.2714</b>	<b>0.8518</b>	<b>1.6200e-003</b>	<b>0.1083</b>	<b>4.4300e-003</b>	<b>0.1127</b>	<b>0.0290</b>	<b>4.0600e-003</b>	<b>0.0331</b>	<b>0.0000</b>	<b>134.2722</b>	<b>134.2722</b>	<b>5.5600e-003</b>	<b>0.0000</b>	<b>134.3890</b>

**3.5 Building Construction - 2016****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	0.2436	2.0382	1.3232	1.9200e-003		0.1407	0.1407		0.1322	0.1322	0.0000	173.1398	173.1398	0.0429	0.0000	174.0416
<b>Total</b>	<b>0.2436</b>	<b>2.0382</b>	<b>1.3232</b>	<b>1.9200e-003</b>		<b>0.1407</b>	<b>0.1407</b>		<b>0.1322</b>	<b>0.1322</b>	<b>0.0000</b>	<b>173.1398</b>	<b>173.1398</b>	<b>0.0429</b>	<b>0.0000</b>	<b>174.0416</b>

**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0305	0.3116	0.4000	7.5000e-004	0.0211	4.8600e-003	0.0260	6.0300e-003	4.4700e-003	0.0105	0.0000	67.6959	67.6959	4.9000e-004	0.0000	67.7063
Worker	0.0573	0.0842	0.8759	1.9300e-003	0.1569	1.3400e-003	0.1582	0.0417	1.2300e-003	0.0429	0.0000	146.9894	146.9894	7.9100e-003	0.0000	147.1555
<b>Total</b>	<b>0.0879</b>	<b>0.3958</b>	<b>1.2758</b>	<b>2.6800e-003</b>	<b>0.1780</b>	<b>6.2000e-003</b>	<b>0.1842</b>	<b>0.0477</b>	<b>5.7000e-003</b>	<b>0.0534</b>	<b>0.0000</b>	<b>214.6853</b>	<b>214.6853</b>	<b>8.4000e-003</b>	<b>0.0000</b>	<b>214.8618</b>

### 3.5 Building Construction - 2016

#### 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	0.0480	1.0135	1.2738	1.9200e-003		0.0645	0.0645		0.0645	0.0645	0.0000	173.1396	173.1396	0.0429	0.0000	174.0414
<b>Total</b>	<b>0.0480</b>	<b>1.0135</b>	<b>1.2738</b>	<b>1.9200e-003</b>		<b>0.0645</b>	<b>0.0645</b>		<b>0.0645</b>	<b>0.0645</b>	<b>0.0000</b>	<b>173.1396</b>	<b>173.1396</b>	<b>0.0429</b>	<b>0.0000</b>	<b>174.0414</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0305	0.3116	0.4000	7.5000e-004	0.0211	4.8600e-003	0.0260	6.0300e-003	4.4700e-003	0.0105	0.0000	67.6959	67.6959	4.9000e-004	0.0000	67.7063
Worker	0.0573	0.0842	0.8759	1.9300e-003	0.1569	1.3400e-003	0.1582	0.0417	1.2300e-003	0.0429	0.0000	146.9894	146.9894	7.9100e-003	0.0000	147.1555
<b>Total</b>	<b>0.0879</b>	<b>0.3958</b>	<b>1.2758</b>	<b>2.6800e-003</b>	<b>0.1780</b>	<b>6.2000e-003</b>	<b>0.1842</b>	<b>0.0477</b>	<b>5.7000e-003</b>	<b>0.0534</b>	<b>0.0000</b>	<b>214.6853</b>	<b>214.6853</b>	<b>8.4000e-003</b>	<b>0.0000</b>	<b>214.8618</b>

### 3.6 Paving - 2016

#### 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	0.0209	0.2239	0.1482	2.2000e-004		0.0126	0.0126		0.0116	0.0116	0.0000	21.0138	21.0138	6.3400e-003	0.0000	21.1469
Paving	3.9000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0248</b>	<b>0.2239</b>	<b>0.1482</b>	<b>2.2000e-004</b>		<b>0.0126</b>	<b>0.0126</b>		<b>0.0116</b>	<b>0.0116</b>	<b>0.0000</b>	<b>21.0138</b>	<b>21.0138</b>	<b>6.3400e-003</b>	<b>0.0000</b>	<b>21.1469</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	8.8000e-004	9.1900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5419	1.5419	8.0000e-005	0.0000	1.5436
<b>Total</b>	<b>6.0000e-004</b>	<b>8.8000e-004</b>	<b>9.1900e-003</b>	<b>2.0000e-005</b>	<b>1.6500e-003</b>	<b>1.0000e-005</b>	<b>1.6600e-003</b>	<b>4.4000e-004</b>	<b>1.0000e-005</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>1.5419</b>	<b>1.5419</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>1.5436</b>

**3.6 Paving - 2016****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	5.4900e-003	0.1106	0.1693	2.2000e-004		5.9800e-003	5.9800e-003		5.9800e-003	5.9800e-003	0.0000	21.0138	21.0138	6.3400e-003	0.0000	21.1469
Paving	3.9000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>9.3900e-003</b>	<b>0.1106</b>	<b>0.1693</b>	<b>2.2000e-004</b>		<b>5.9800e-003</b>	<b>5.9800e-003</b>		<b>5.9800e-003</b>	<b>5.9800e-003</b>	<b>0.0000</b>	<b>21.0138</b>	<b>21.0138</b>	<b>6.3400e-003</b>	<b>0.0000</b>	<b>21.1469</b>

**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	8.8000e-004	9.1900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5419	1.5419	8.0000e-005	0.0000	1.5436
<b>Total</b>	<b>6.0000e-004</b>	<b>8.8000e-004</b>	<b>9.1900e-003</b>	<b>2.0000e-005</b>	<b>1.6500e-003</b>	<b>1.0000e-005</b>	<b>1.6600e-003</b>	<b>4.4000e-004</b>	<b>1.0000e-005</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>1.5419</b>	<b>1.5419</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>1.5436</b>

### 3.7 Architectural Coating - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2158					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.3700e-003	0.0474	0.0377	6.0000e-005		3.9300e-003	3.9300e-003		3.9300e-003	3.9300e-003	0.0000	5.1065	5.1065	6.0000e-004	0.0000	5.1192
<b>Total</b>	<b>1.2232</b>	<b>0.0474</b>	<b>0.0377</b>	<b>6.0000e-005</b>		<b>3.9300e-003</b>	<b>3.9300e-003</b>		<b>3.9300e-003</b>	<b>3.9300e-003</b>	<b>0.0000</b>	<b>5.1065</b>	<b>5.1065</b>	<b>6.0000e-004</b>	<b>0.0000</b>	<b>5.1192</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2100e-003	4.7100e-003	0.0490	1.1000e-004	8.7800e-003	7.0000e-005	8.8500e-003	2.3300e-003	7.0000e-005	2.4000e-003	0.0000	8.2232	8.2232	4.4000e-004	0.0000	8.2325
<b>Total</b>	<b>3.2100e-003</b>	<b>4.7100e-003</b>	<b>0.0490</b>	<b>1.1000e-004</b>	<b>8.7800e-003</b>	<b>7.0000e-005</b>	<b>8.8500e-003</b>	<b>2.3300e-003</b>	<b>7.0000e-005</b>	<b>2.4000e-003</b>	<b>0.0000</b>	<b>8.2232</b>	<b>8.2232</b>	<b>4.4000e-004</b>	<b>0.0000</b>	<b>8.2325</b>

### 3.7 Architectural Coating - 2016

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2158					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1900e-003	0.0271	0.0367	6.0000e-005		1.9000e-003	1.9000e-003		1.9000e-003	1.9000e-003	0.0000	5.1065	5.1065	6.0000e-004	0.0000	5.1191
<b>Total</b>	<b>1.2170</b>	<b>0.0271</b>	<b>0.0367</b>	<b>6.0000e-005</b>		<b>1.9000e-003</b>	<b>1.9000e-003</b>		<b>1.9000e-003</b>	<b>1.9000e-003</b>	<b>0.0000</b>	<b>5.1065</b>	<b>5.1065</b>	<b>6.0000e-004</b>	<b>0.0000</b>	<b>5.1191</b>

#### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2100e-003	4.7100e-003	0.0490	1.1000e-004	8.7800e-003	7.0000e-005	8.8500e-003	2.3300e-003	7.0000e-005	2.4000e-003	0.0000	8.2232	8.2232	4.4000e-004	0.0000	8.2325
<b>Total</b>	<b>3.2100e-003</b>	<b>4.7100e-003</b>	<b>0.0490</b>	<b>1.1000e-004</b>	<b>8.7800e-003</b>	<b>7.0000e-005</b>	<b>8.8500e-003</b>	<b>2.3300e-003</b>	<b>7.0000e-005</b>	<b>2.4000e-003</b>	<b>0.0000</b>	<b>8.2232</b>	<b>8.2232</b>	<b>4.4000e-004</b>	<b>0.0000</b>	<b>8.2325</b>

### 4.0 Operational Detail - Mobile



### 4.1 Mitigation Measures Mobile

- Increase Density
- Increase Diversity
- Improve Walkability Design
- Improve Destination Accessibility
- Increase Transit Accessibility
- Integrate Below Market Rate Housing
- Improve Pedestrian Network

	ROG	NOx	CO	SO2	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	0.7265	2.0349	7.8826	0.0201	1.3630	0.0285	1.3915	0.3647	0.0263	0.3910	0.0000	1,504.4217	1,504.4217	0.0575	0.0000	1,505,6282
Unmitigated	0.7826	2.4831	9.3022	0.0252	1.7232	0.0355	1.7587	0.4611	0.0327	0.4938	0.0000	1,889.4192	1,889.4192	0.0712	0.0000	1,890,9136

### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,186.20	1,288.80	1092.60	4,057,819	3,209,655
General Office Building	200.38	43.13	17.84	489,147	386,905
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
<b>Total</b>	<b>1,386.58</b>	<b>1,331.93</b>	<b>1,110.44</b>	<b>4,546,966</b>	<b>3,596,561</b>

### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.512137	0.059943	0.180601	0.139123	0.042256	0.006647	0.016115	0.031670	0.001940	0.002502	0.004362	0.000588	0.002117

**5.0 Energy Detail**

**5.1 Fleet Mix**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	238.2293	238.2293	0.0110	2.2700e-003	239.1616
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	291.4641	291.4641	0.0134	2.7700e-003	292.6047
NaturalGas Mitigated	9.3500e-003	0.0804	0.0377	5.1000e-004		6.4600e-003	6.4600e-003		6.4600e-003	6.4600e-003	0.0000	92.5542	92.5542	1.7700e-003	1.7000e-003	93.1175
NaturalGas Unmitigated	0.0107	0.0920	0.0432	5.8000e-004		7.3900e-003	7.3900e-003		7.3900e-003	7.3900e-003	0.0000	105.9068	105.9068	2.0300e-003	1.9400e-003	106.5513

**5.2 Energy by Land Use - NaturalGas**  
**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	1.78569e+006	9.6300e-003	0.0823	0.0350	5.3000e-004		6.6500e-003	6.6500e-003		6.6500e-003	6.6500e-003	0.0000	95.2913	95.2913	1.8300e-003	1.7500e-003	95.8712
General Office Building	198926	1.0700e-003	9.7500e-003	8.1900e-003	6.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	10.6155	10.6155	2.0000e-004	1.9000e-004	10.6801
<b>Total</b>		<b>0.0107</b>	<b>0.0920</b>	<b>0.0432</b>	<b>5.9000e-004</b>		<b>7.3900e-003</b>	<b>7.3900e-003</b>		<b>7.3900e-003</b>	<b>7.3900e-003</b>	<b>0.0000</b>	<b>105.9068</b>	<b>105.9068</b>	<b>2.0300e-003</b>	<b>1.9400e-003</b>	<b>106.5513</b>

## 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/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	1.56425e+006	8.4300e-003	0.0721	0.0307	4.6000e-004		5.8300e-003	5.8300e-003		5.8300e-003	5.8300e-003	0.0000	83.4743	83.4743	1.6000e-003	1.5300e-003	83.9823
General Office Building	170152	9.2000e-004	8.3400e-003	7.0100e-003	5.0000e-005		6.3000e-004	6.3000e-004		6.3000e-004	6.3000e-004	0.0000	9.0800	9.0800	1.7000e-004	1.7000e-004	9.1352
<b>Total</b>		<b>9.3500e-003</b>	<b>0.0804</b>	<b>0.0377</b>	<b>5.1000e-004</b>		<b>6.4600e-003</b>	<b>6.4600e-003</b>		<b>6.4600e-003</b>	<b>6.4600e-003</b>	<b>0.0000</b>	<b>92.5542</b>	<b>92.5542</b>	<b>1.7700e-003</b>	<b>1.7000e-003</b>	<b>93.1175</b>

### 5.3 Energy by Land Use - Electricity

#### Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	637553	182.4465	8.3900e-003	1.7400e-003	183.1605
General Office Building	264446	75.6757	3.4800e-003	7.2000e-004	75.9719
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	116512	33.3419	1.5300e-003	3.2000e-004	33.4724
<b>Total</b>		<b>291.4641</b>	<b>0.0134</b>	<b>2.7800e-003</b>	<b>292.6047</b>

### 5.3 Energy by Land Use - Electricity

#### Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	564163	161.4449	7.4200e-003	1.5400e-003	162.0767
General Office Building	210064	60.1135	2.7600e-003	5.7000e-004	60.3487
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	58256	16.6709	7.7000e-004	1.6000e-004	16.7362
<b>Total</b>		<b>238.2293</b>	<b>0.0110</b>	<b>2.2700e-003</b>	<b>239.1616</b>

### 6.0 Area Detail

#### 6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	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	1.4538	0.0217	1.8742	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0414	3.0414	3.0300e-003	0.0000	3.1051
Unmitigated	1.4538	0.0217	1.8742	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0414	3.0414	3.0300e-003	0.0000	3.1051

## 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	0.1216					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2741					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0581	0.0217	1.8742	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0414	3.0414	3.0300e-003	0.0000	3.1051
<b>Total</b>	<b>1.4538</b>	<b>0.0217</b>	<b>1.8742</b>	<b>1.0000e-004</b>		<b>0.0102</b>	<b>0.0102</b>		<b>0.0102</b>	<b>0.0102</b>	<b>0.0000</b>	<b>3.0414</b>	<b>3.0414</b>	<b>3.0300e-003</b>	<b>0.0000</b>	<b>3.1051</b>

## 6.2 Area by SubCategory

### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1216					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2741					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0581	0.0217	1.8742	1.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	3.0414	3.0414	3.0300e-003	0.0000	3.1051
<b>Total</b>	<b>1.4538</b>	<b>0.0217</b>	<b>1.8742</b>	<b>1.0000e-004</b>		<b>0.0102</b>	<b>0.0102</b>		<b>0.0102</b>	<b>0.0102</b>	<b>0.0000</b>	<b>3.0414</b>	<b>3.0414</b>	<b>3.0300e-003</b>	<b>0.0000</b>	<b>3.1051</b>

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower



	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	78.2096	0.3934	9.9000e-003	89.5406
Unmitigated	90.3095	0.4915	0.0123	104.4518

## 7.2 Water by Land Use

### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	11.7277 / 7.39357	70.9267	0.3852	9.6600e-003	82.0121
General Office Building	3.23475 / 1.98259	19.3828	0.1063	2.6600e-003	22.4397
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>90.3095</b>	<b>0.4915</b>	<b>0.0123</b>	<b>104.4518</b>

## 7.2 Water by Land Use

### Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	9.38218 / 7.39357	61.4427	0.3084	7.7600e-003	70.3246
General Office Building	2.5878 / 1.98259	16.7669	0.0850	2.1400e-003	19.2160
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>78.2096</b>	<b>0.3934</b>	<b>9.9000e-003</b>	<b>89.5406</b>

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.1221	0.5982	0.0000	22.6844
Unmitigated	20.2443	1.1964	0.0000	45.3688

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	82.8	16.8077	0.9933	0.0000	37.6670
General Office Building	16.93	3.4366	0.2031	0.0000	7.7017
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>20.2443</b>	<b>1.1964</b>	<b>0.0000</b>	<b>45.3688</b>

## 8.2 Waste by Land Use

### Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	41.4	8.4038	0.4967	0.0000	18.8335
General Office Building	8.465	1.7183	0.1016	0.0000	3.8509
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>10.1222</b>	<b>0.5982</b>	<b>0.0000</b>	<b>22.6844</b>

## 9.0 Operational Offroad

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

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tblProjectCharacteristics

ProjectName	Location	State	EMFAC_II	WindSpeed	Precipitation	ClimateZone	Urbanization	OperationYear	UtilityCompany	CO2Intensity
515 West	LA	AB	SC	2.2	31	9	Urban	2018	Southern C	630.89

tblProjectCharacteristics

CH4Intens	N2OIntens	TotalPopul	TotalLotAc	UsingHistoricalEnergyUseData
0.029	0.006	463	8.23	0

tblPollutants

PollutantS	PollutantF	PollutantName
1	Reactive C	ROG
1	Nitrogen O	NOX
1	Carbon M	CO
1	Sulfur Dio	SO2
1	Particulate	PM10
1	Particulate	PM2_5
1	Fugitive P	PM10_FUG
1	Fugitive P	PM25_FUG
1	Biogenic C	CO2_BIO
1	Non-Bioge	CO2_NBIO
1	Carbon Di	CO2
1	Methane (	CH4
1	Nitrous Ox	N2O
1	CO2 Equiv	CO2E

tblLandUse

LandUseT	LandUseS	LandUseU	LandUseS	LotAcreag	LandUseS	Population
Commerci	General O	18.2	1000sqft	0	18200	0
Parking	Other Non	22	1000sqft	0.51	22000	0
Parking	Parking Lo	331	Space	2.98	132400	0
Residentia	Apartment	180	Dwelling U	4.74	180000	463



## tblConstructionPhase

PhaseNum	PhaseName	PhaseType	PhaseStart	PhaseEnd	NumDays	NumDays	PhaseDescription
1	Demolition	Demolition	2015/04/01	2015/04/21	5	20	
2	Site Prepa	Site Prepa	2015/04/21	2015/06/01	5	30	
3	Grading	Grading	2015/06/01	2015/09/01	5	60	
4	Building C	Building C	2015/09/01	2016/07/11	5	230	
5	Paving	Paving	2016/07/21	2016/08/11	5	20	
6	Architectur	Architectur	2016/07/21	2016/09/11	5	40	

## tblOffRoadEquipment

PhaseNarr	OffRoadEc	OffRoadEc	UsageHou	HorsePow	LoadFactor
Demolition Concrete/		1	8	81	0.73
Demolition Excavators		3	8	162	0.38
Demolition Rubber Tir		2	8	255	0.4
Site Prepa Rubber Tir		3	8	255	0.4
Site Prepa Tractors/Lc		4	8	97	0.37
Grading Excavators		1	8	162	0.38
Grading Graders		1	8	174	0.41
Grading Rubber Tir		1	8	255	0.4
Grading Tractors/Lc		3	8	97	0.37
Building Cranes		1	7	226	0.29
Building Cr Forklifts		3	8	89	0.2
Building Cr Generator		1	8	84	0.74
Building Cr Tractors/Lc		3	7	97	0.37
Building Cr Welders		1	8	46	0.45
Paving Pavers		2	8	125	0.42
Paving Paving Equ		2	8	130	0.36
Paving Rollers		2	8	80	0.38
Architectur Air Compr		1	6	78	0.48

tblTripsAndVMT

PhaseName	WorkerTrips	VendorTrips	HaulingTrips	WorkerVeh	VendorVeh	HaulingTrips	WorkerVeh	VendorVeh	HaulingVeh
Demolition	15	0	21	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Site Prepa	18	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Grading	15	0	4043	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Building Co	200	48	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Paving	15	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT
Architectur	40	0	0	14.7	6.9	20	LD_Mix	HDT_Mix	HHDT

hicleClass

## tblOnRoadDust

PhaseName	WorkerPer	VendorPer	HaulingPe	RoadSiltLc	MaterialSil	MaterialMc	AverageVe	MeanVehicleSpeed
Demolition	100	100	100	0.1	8.5	0.5	2.4	40
Site Prepa	100	100	100	0.1	8.5	0.5	2.4	40
Grading	100	100	100	0.1	8.5	0.5	2.4	40
Building C	100	100	100	0.1	8.5	0.5	2.4	40
Paving	100	100	100	0.1	8.5	0.5	2.4	40
Architectur	100	100	100	0.1	8.5	0.5	2.4	40

tblDemolition

PhaseNarr	Demolition	DemolitionUnitAmount
Demolition Building S		4643

tblGrading

PhaseName	MaterialIm	MaterialEx	GradingSiz	ImportExp	MeanVehic	AcresOfGr	MaterialMc	MaterialMc	MaterialSilt
Site Prepa	0	0		0	7.1	0	7.9	12	6.9
Grading	0	32344	Cubic Yarc	0	7.1	30	7.9	12	6.9

tContent



tblArchitecturalCoating

PhaseName	Architectur	Architectur	EF_Reside	ConstArea	EF_Reside	ConstArea	EF_Nonre	ConstArea	EF_Nonre	ConstArea
Architectur	2008/07/0	3000/12/3	50	364500	100	121500	250	66258	250	

ConstArea\_Nonresidential\_Exterior  
22086

tblPaving

ParkingLotAcreage

tblVehicleTrips

VehicleTrips	VehicleTrips	WD_TR	ST_TR	SU_TR	HW_TL	HS_TL	HO_TL	CC_TL	CW_TL
Apartment: Dwelling U		6.59	7.16	6.07	14.7	5.9	8.7	0	0
General Office 1000sqft		11.01	2.37	0.98	0	0	0	8.4	16.6
Other Non-Office 1000sqft		0	0	0	0	0	0	8.4	16.6
Parking Lot Space		0	0	0	0	0	0	8.4	16.6

tblVehicleTrips

CNW_TL	PR_TP	DV_TP	PB_TP	HW_TTP	HS_TTP	HO_TTP	CC_TTP	CW_TTP	CNW_TTP
0	86	11	3	40.2	19.2	40.6	0	0	0
6.9	77	19	4	0	0	0	48	33	19
6.9	0	0	0	0	0	0	0	0	0
6.9	0	0	0	0	0	0	0	0	0

tblVehicleTrips

## tblVehicleEF

Season	EmissionT	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD
A	FleetMix	0.512137	0.059943	0.180601	0.139123	0.042256	0.006647	0.016115	0.03167
A	CH4_IDLE	0	0	0	0	0.00129	0.001012	0.007347	0.024664
A	CH4_RUN	0.011083	0.023548	0.015457	0.025313	0.013283	0.009191	0.004399	0.010793
A	CH4_STRI	0.006861	0.018719	0.010012	0.020811	0.023288	0.014146	0	0
A	CO_IDLE	0	0	0	0	0.187019	0.150888	1.837533	2.982119
A	CO_RUNE	0.895734	2.38372	1.269316	2.046699	1.226548	0.809116	0.895383	1.731729
A	CO_STRE	1.672692	4.418165	2.469094	4.309555	4.476674	2.677007	16.75363	56.02751
A	CO2_NBIC	0	0	0	0	7.988658	8.795511	590.6863	548.8135
A	CO2_NBIC	271.6555	327.4722	397.0586	522.8548	551.5788	531.9238	955.1825	1592.586
A	CO2_NBIC	57.60089	68.5454	83.05503	109.4386	43.16291	29.55552	52.82974	53.30077
A	NOX_IDLE	0	0	0	0	0.045543	0.096476	5.577636	4.333408
A	NOX_RUN	0.081668	0.238484	0.142452	0.253532	1.1207	1.789737	2.420172	5.209949
A	NOX_STR	0.107255	0.255442	0.224466	0.409594	1.367644	0.912348	1.82812	3.641912
A	PM10_IDL	0	0	0	0	0.000476	0.001045	0.017096	0.010223
A	PM10_PM	0.03675	0.03675	0.03675	0.03675	0.046106	0.06251	0.11293	0.060096
A	PM10_PM	0.008	0.008	0.008	0.008	0.008943	0.009965	0.011256	0.034786
A	PM10_RU	0.001902	0.004059	0.001925	0.002227	0.007392	0.014178	0.062027	0.087879
A	PM10_STF	0.003022	0.004841	0.003037	0.003375	0.001102	0.000607	0.002049	0.001587
A	PM25_IDL	0	0	0	0	0.000438	0.000961	0.015728	0.009405
A	PM25_PM	0.01575	0.01575	0.01575	0.01575	0.01976	0.02679	0.048398	0.025755
A	PM25_PM	0.002	0.002	0.002	0.002	0.002236	0.002491	0.002814	0.008696
A	PM25_RU	0.001759	0.003759	0.001781	0.002054	0.006804	0.013046	0.057065	0.080848
A	PM25_STF	0.002796	0.004485	0.002812	0.003118	0.001013	0.000559	0.001812	0.001357
A	ROG_DIU	0.048381	0.165512	0.066222	0.090641	0.002776	0.001639	0.002758	0.001653
A	ROG_HTS	0.112654	0.29418	0.14695	0.204101	0.073649	0.046456	0.101653	0.07602
A	ROG_IDLE	0	0	0	0	0.029928	0.02326	0.158173	0.531014
A	ROG_RES	0.043061	0.126339	0.062131	0.086797	0.001671	0.00101	0.001687	0.001167
A	ROG_RUN	0.020049	0.059215	0.027369	0.055627	0.089862	0.082881	0.119716	0.24284
A	ROG_RUN	0.247528	1.00992	0.453924	0.611068	0.427613	0.262416	0.467027	0.326698
A	ROG_STR	0.12094	0.331456	0.177089	0.36729	0.411471	0.250201	1.038046	1.662849
A	SO2_IDLE	0	0	0	0	0.000088	0.000094	0.006027	0.0056
A	SO2_RUN	0.003605	0.004164	0.004899	0.006217	0.005854	0.005575	0.009805	0.016264
A	SO2_STRI	0.000765	0.000921	0.001046	0.001347	0.000544	0.000365	0.00086	0.001501
A	TOG_DIU	0.048381	0.165512	0.066222	0.090641	0.002776	0.001639	0.002758	0.001653
A	TOG_HTS	0.112654	0.29418	0.14695	0.204101	0.073649	0.046456	0.101653	0.07602
A	TOG_IDLE	0	0	0	0	0.031807	0.024929	0.180068	0.604519
A	TOG_RES	0.043061	0.126339	0.062131	0.086797	0.001671	0.00101	0.001687	0.001167
A	TOG_RUN	0.031472	0.08369	0.043279	0.081805	0.106734	0.097801	0.137953	0.277245
A	TOG_RUN	0.247528	1.00992	0.453924	0.611068	0.427613	0.262416	0.467027	0.326698
A	TOG_STR	0.129169	0.353926	0.189104	0.392256	0.439415	0.267178	1.109572	1.777639
S	FleetMix	0.512137	0.059943	0.180601	0.139123	0.042256	0.006647	0.016115	0.03167
S	CH4_IDLE	0	0	0	0	0.00129	0.001012	0.006924	0.023244
S	CH4_RUN	0.011083	0.023548	0.015457	0.025313	0.013283	0.009191	0.004399	0.010793
S	CH4_STRI	0.006861	0.018719	0.010012	0.020811	0.023288	0.014146	0	0
S	CO_IDLE	0	0	0	0	0.187019	0.150888	1.335227	2.16693
S	CO_RUNE	0.992174	2.60789	1.402303	2.253915	1.246678	0.817779	0.903232	1.742862
S	CO_STRE	1.315645	3.48203	1.941974	3.39542	3.630645	2.180997	13.5965	45.45973
S	CO2_NBIC	0	0	0	0	7.988659	8.795511	625.7799	581.4194
S	CO2_NBIC	285.6928	343.7507	417.1781	549.8774	551.5788	531.9238	955.1825	1592.586
S	CO2_NBIC	57.6009	68.5454	83.05503	109.4386	43.16291	29.55552	52.82974	53.30077
S	NOX_IDLE	0	0	0	0	0.045543	0.096476	5.757057	4.472804

## tblVehicleEF

S	NOX_RUN	0.072197	0.209241	0.125665	0.223811	1.040062	1.684088	2.275135	4.924368
S	NOX_STR	0.099713	0.237248	0.208659	0.380626	1.315866	0.877786	1.754865	3.494991
S	PM10_IDL	0	0	0	0	0.000476	0.001045	0.014412	0.008618
S	PM10_PM	0.03675	0.03675	0.03675	0.03675	0.046106	0.06251	0.11293	0.060096
S	PM10_PM	0.008	0.008	0.008	0.008	0.008943	0.009965	0.011256	0.034786
S	PM10_RU	0.001902	0.004059	0.001925	0.002227	0.007392	0.014178	0.062027	0.087879
S	PM10_STF	0.003022	0.004841	0.003037	0.003375	0.001102	0.000607	0.002049	0.001587
S	PM25_IDL	0	0	0	0	0.000438	0.000961	0.013259	0.007929
S	PM25_PM	0.01575	0.01575	0.01575	0.01575	0.01976	0.02679	0.048398	0.025755
S	PM25_PM	0.002	0.002	0.002	0.002	0.002236	0.002491	0.002814	0.008696
S	PM25_RU	0.001759	0.003759	0.001781	0.002054	0.006804	0.013046	0.057065	0.080848
S	PM25_STF	0.002796	0.004485	0.002812	0.003118	0.001013	0.000559	0.001812	0.001357
S	ROG_DIU	0.07721	0.268058	0.106183	0.14656	0.004345	0.002537	0.004278	0.002686
S	ROG_HTS	0.118163	0.317193	0.155248	0.215379	0.07873	0.049495	0.106642	0.079445
S	ROG_IDLE	0	0	0	0	0.029928	0.02326	0.149063	0.500431
S	ROG_RES	0.064338	0.195	0.092875	0.130902	0.002611	0.001553	0.002614	0.001919
S	ROG_RUN	0.021151	0.062865	0.029017	0.058871	0.091452	0.083459	0.120237	0.243083
S	ROG_RUN	0.236114	0.946178	0.426376	0.577463	0.418191	0.255498	0.455577	0.323956
S	ROG_STR	0.102461	0.281604	0.150599	0.312184	0.364478	0.222471	0.908515	1.437555
S	SO2_IDLE	0	0	0	0	0.000088	0.000094	0.006385	0.005933
S	SO2_RUN	0.003794	0.004377	0.00515	0.006542	0.005854	0.005576	0.009805	0.016264
S	SO2_STRI	0.000759	0.000905	0.001036	0.001331	0.000529	0.000357	0.000806	0.001328
S	TOG_DIU	0.07721	0.268058	0.106183	0.14656	0.004345	0.002537	0.004278	0.002686
S	TOG_HTS	0.118163	0.317193	0.155248	0.215379	0.07873	0.049495	0.106642	0.079445
S	TOG_IDLE	0	0	0	0	0.031807	0.024929	0.169697	0.569703
S	TOG_RES	0.064338	0.195	0.092875	0.130902	0.002611	0.001553	0.002614	0.001919
S	TOG_RUN	0.033284	0.088433	0.045847	0.086265	0.108525	0.098486	0.138535	0.277511
S	TOG_RUN	0.236114	0.946178	0.426376	0.577463	0.418191	0.255498	0.455577	0.323956
S	TOG_STR	0.109434	0.300695	0.160818	0.333406	0.389227	0.237564	0.97107	1.536737
W	FleetMix	0.512137	0.059943	0.180601	0.139123	0.042256	0.006647	0.016115	0.03167
W	CH4_IDLE	0	0	0	0	0.00129	0.001012	0.007931	0.026626
W	CH4_RUN	0.011083	0.023548	0.015457	0.025313	0.013283	0.009191	0.004399	0.010793
W	CH4_STRI	0.006861	0.018719	0.010012	0.020811	0.023288	0.014146	0	0
W	CO_IDLE	0	0	0	0	0.187019	0.150888	2.531193	4.107855
W	CO_RUN	0.86448	2.312336	1.226609	1.980389	1.222161	0.807087	0.893223	1.729329
W	CO_STRE	1.731604	4.558501	2.554419	4.445173	4.521633	2.71415	17.13332	56.81238
W	CO2_NBIC	0	0	0	0	7.988659	8.795511	542.2236	503.7863
W	CO2_NBIC	267.2972	322.6113	390.8846	514.8702	551.5788	531.9238	955.1825	1592.586
W	CO2_NBIC	57.6009	68.5454	83.05503	109.4386	43.16291	29.55552	52.82974	53.30077
W	NOX_IDLE	0	0	0	0	0.045543	0.096476	5.329865	4.140908
W	NOX_RUN	0.078966	0.230912	0.137754	0.245082	1.098954	1.758401	2.374928	5.124604
W	NOX_STR	0.108581	0.258396	0.227218	0.414229	1.372893	0.916437	1.840392	3.659144
W	PM10_IDL	0	0	0	0	0.000476	0.001045	0.020802	0.012439
W	PM10_PM	0.03675	0.03675	0.03675	0.03675	0.046106	0.06251	0.11293	0.060096
W	PM10_PM	0.008	0.008	0.008	0.008	0.008943	0.009965	0.011256	0.034786
W	PM10_RU	0.001902	0.004059	0.001925	0.002227	0.007392	0.014178	0.062027	0.087879
W	PM10_STF	0.003022	0.004841	0.003037	0.003375	0.001102	0.000607	0.002049	0.001587
W	PM25_IDL	0	0	0	0	0.000438	0.000961	0.019138	0.011444
W	PM25_PM	0.01575	0.01575	0.01575	0.01575	0.01976	0.02679	0.048398	0.025755
W	PM25_PM	0.002	0.002	0.002	0.002	0.002236	0.002491	0.002814	0.008696
W	PM25_RU	0.001759	0.003759	0.001781	0.002054	0.006804	0.013046	0.057065	0.080848
W	PM25_STF	0.002796	0.004485	0.002812	0.003118	0.001013	0.000559	0.001812	0.001357



## tblVehicleEF

W	ROG_DIUI	0.048199	0.170228	0.064756	0.087844	0.00298	0.001732	0.002996	0.001731
W	ROG_HTS	0.123769	0.333888	0.160699	0.221675	0.0842	0.052278	0.118114	0.090279
W	ROG_IDLE	0	0	0	0	0.029928	0.02326	0.170753	0.573248
W	ROG_RES	0.041903	0.122963	0.060234	0.084335	0.001695	0.001009	0.001728	0.001188
W	ROG_RUN	0.019679	0.058089	0.026847	0.054601	0.089504	0.082743	0.119578	0.242786
W	ROG_RUN	0.278719	1.195645	0.530162	0.709072	0.464118	0.286348	0.507597	0.349413
W	ROG_STR	0.123676	0.338038	0.18092	0.374462	0.415476	0.253091	1.055931	1.683242
W	SO2_IDLE	0	0	0	0	0.000088	0.000094	0.005533	0.00514
W	SO2_RUN	0.003547	0.004101	0.004822	0.006121	0.005854	0.005575	0.009805	0.016264
W	SO2_STR	0.000766	0.000924	0.001047	0.00135	0.000545	0.000366	0.000866	0.001514
W	TOG_DIUI	0.048199	0.170228	0.064756	0.087844	0.00298	0.001732	0.002996	0.001731
W	TOG_HTS	0.123769	0.333888	0.160699	0.221675	0.0842	0.052278	0.118114	0.090279
W	TOG_IDLE	0	0	0	0	0.031807	0.024929	0.19439	0.652599
W	TOG_RES	0.041903	0.122963	0.060234	0.084335	0.001695	0.001009	0.001728	0.001188
W	TOG_RUN	0.030894	0.082253	0.042494	0.080434	0.106333	0.09764	0.1378	0.277187
W	TOG_RUN	0.278719	1.195645	0.530162	0.709072	0.464118	0.286348	0.507597	0.349413
W	TOG_STR	0.132091	0.360954	0.193195	0.399916	0.443692	0.270264	1.128687	1.799448

## tblVehicleEF

OBUS	UBUS	MCY	SBUS	MH
0.00194	0.002502	0.004362	0.000588	0.002117
0.01965	0	0	0.004322	0
0.002834	0	0	0.005441	0
0	0	0	0	0
2.475334	0	0	0.991359	0
1.157693	4.897527	21.21693	3.719783	2.524473
9.734989	10.18813	9.934448	29.9764	7.097604
554.8457	0	0	563.2881	0
1058.198	2015.067	144.9565	1083.273	627.4687
34.2793	28.48752	40.96948	122.0842	29.36832
5.298662	0	0	7.746167	0
3.227349	11.72131	1.167387	7.394623	1.408488
1.365869	1.180061	0.30572	2.113446	0.754235
0.010253	0	0	0.014633	0
0.096412	0.67859	0.03675	0.570832	0.050282
0.01055	0.008	0.008	0.011017	0.008578
0.041978	0.190114	0.000381	0.048404	0.02443
0.000729	0.00073	0.0012	0.005113	0.000928
0.009433	0	0	0.013462	0
0.041319	0.290824	0.01575	0.244642	0.021549
0.002637	0.002	0.002	0.002754	0.002145
0.03862	0.174894	0.000316	0.044504	0.022473
0.000662	0.000657	0.000977	0.004525	0.000838
0.00099	0.005631	0.975945	0.035445	1.094033
0.028421	0.097417	0.429246	0.238628	0.070919
0.423065	0	0	0.093058	0
0.000526	0.003107	0.553653	0.015519	0.439259
0.128216	0.76031	2.409059	0.327948	0.089479
0.322624	0.750815	1.34051	2.039505	1.802662
0.599732	0.754379	2.082577	1.932861	0.40213
0.005661	0	0	0.005748	0
0.010907	0.020695	0.001959	0.011194	0.006669
0.000538	0.000488	0.00066	0.001835	0.000438
0.00099	0.005631	0.975945	0.035445	1.094033
0.028421	0.097417	0.429246	0.238628	0.070919
0.481627	0	0	0.10594	0
0.000526	0.003107	0.553653	0.015519	0.439259
0.150355	0.846432	2.647032	0.36623	0.111876
0.322624	0.750815	1.34051	2.039505	1.802662
0.640534	0.805833	2.237155	2.066674	0.429673
0.00194	0.002502	0.004362	0.000588	0.002117
0.018519	0	0	0.004073	0
0.002834	0	0	0.005441	0
0	0	0	0	0
1.79868	0	0	0.720362	0
1.172378	4.937787	20.50798	3.742036	2.576254
7.884472	8.576104	8.77849	25.56811	5.629084
587.8099	0	0	596.754	0
1058.198	2015.067	144.9565	1083.273	627.4687
34.2793	28.48752	40.96948	122.0842	29.36833
5.469109	0	0	7.995345	0

## tblVehicleEF

3.031251	11.03922	1.016445	6.954924	1.293102
1.311418	1.127984	0.289892	1.99862	0.724172
0.008644	0	0	0.012335	0
0.096412	0.67859	0.03675	0.570832	0.050282
0.01055	0.008	0.008	0.011017	0.008578
0.041978	0.190114	0.000381	0.048404	0.02443
0.000729	0.00073	0.0012	0.005113	0.000928
0.007952	0	0	0.011348	0
0.041319	0.290824	0.01575	0.244642	0.021549
0.002637	0.002	0.002	0.002754	0.002145
0.03862	0.174894	0.000316	0.044504	0.022473
0.000662	0.000657	0.000977	0.004525	0.000838
0.001483	0.008318	1.658446	0.053316	1.678489
0.029332	0.101575	0.520796	0.242267	0.074708
0.398699	0	0	0.087699	0
0.000786	0.004727	1.051195	0.023796	0.693578
0.129063	0.769973	2.34724	0.332272	0.091084
0.315203	0.702246	1.256489	1.880272	1.769857
0.529957	0.676463	1.828581	1.719987	0.345468
0.005998	0	0	0.006089	0
0.010908	0.020696	0.001946	0.011194	0.00667
0.000506	0.00046	0.000633	0.001759	0.000413
0.001483	0.008318	1.658446	0.053316	1.678489
0.029332	0.101575	0.520796	0.242267	0.074708
0.453888	0	0	0.099838	0
0.000786	0.004727	1.051195	0.023796	0.693578
0.151315	0.856659	2.581972	0.370839	0.113764
0.315203	0.702246	1.256489	1.880272	1.769857
0.566001	0.722591	1.964157	1.83891	0.369122
0.00194	0.002502	0.004362	0.000588	0.002117
0.021213	0	0	0.004666	0
0.002834	0	0	0.005441	0
0	0	0	0	0
3.409761	0	0	1.365593	0
1.15436	4.889638	21.1263	3.709635	2.512822
9.938736	10.32056	9.988835	30.81568	7.144631
509.3236	0	0	517.0734	0
1058.198	2015.067	144.9565	1083.273	627.4687
34.2793	28.48752	40.96948	122.0842	29.36833
5.063284	0	0	7.402065	0
3.167899	11.49637	1.1357	7.27153	1.378534
1.374445	1.186589	0.307545	2.138805	0.756644
0.012476	0	0	0.017805	0
0.096412	0.67859	0.03675	0.570832	0.050282
0.01055	0.008	0.008	0.011017	0.008578
0.041978	0.190114	0.000381	0.048404	0.02443
0.000729	0.00073	0.0012	0.005113	0.000928
0.011478	0	0	0.016381	0
0.041319	0.290824	0.01575	0.244642	0.021549
0.002637	0.002	0.002	0.002754	0.002145
0.03862	0.174894	0.000316	0.044504	0.022473
0.000662	0.000657	0.000977	0.004525	0.000838

tblVehicleEF

0.00103	0.006506	1.098123	0.040844	1.266648
0.03086	0.12273	0.562753	0.29076	0.090247
0.456713	0	0	0.100459	0
0.000525	0.003365	0.546664	0.016504	0.466715
0.128018	0.75832	2.411554	0.326664	0.089117
0.345084	0.878337	1.587485	2.403437	1.905348
0.608907	0.762844	2.100961	1.977648	0.405155
0.005197	0	0	0.005276	0
0.010907	0.020695	0.001958	0.011193	0.006669
0.000541	0.00049	0.000661	0.00185	0.000438
0.00103	0.006506	1.098123	0.040844	1.266648
0.03086	0.12273	0.562753	0.29076	0.090247
0.519933	0	0	0.114365	0
0.000525	0.003365	0.546664	0.016504	0.466715
0.150129	0.844331	2.649647	0.364867	0.111459
0.345084	0.878337	1.587485	2.403437	1.905348
0.650332	0.814881	2.256901	2.114588	0.432907

tblRoadDust

RoadPerce	RoadSiltLc	MaterialSil	MaterialMc	MobileAve	MeanVehicleSpeed
100	0.1	4.3	0.5	2.4	40

tblWoodstoves

Woodstove Apartment:	NumberCc	NumberCa	NumberNc	NumberPe	Woodstove	Woodstove	WoodMass
	0	0	0	0	0	0	0

tblFireplaces

Fireplaces	NumberWr	NumberGa	NumberPr	NumberNo	FireplaceH	FireplaceD	FireplaceWood	Mass
Apartment:	0	0	0	0	0	0	0	0

ROG\_EF  
1.98E-05



tblAreaCoating

Area_EF_I	Area_Resi	Area_EF_I	Area_Resi	Area_EF_I	Area_Nonr	Area_EF_I	Area_Nonr	ReapplicationRatePer
50	364500	100	121500	250	66258	250	22086	10

cent

tblLandscapeEquipment

NumberSn	NumberSummerDays
0	250

tblEnergyUse

EnergyUse	T24E	NT24E	LightingElc	T24NG	NT24NG
Apartment:	246.66	2553.86	741.44	8201.59	1718.92
General O	5.62	4.62	4.29	10.54	0.39
Other Non-	0	0	0	0	0
Parking Lo	0	0	0.88	0	0

tblWater

WaterLanc	WaterLanc	IndoorWat	OutdoorW:	ElectricityI	ElectricityI	ElectricityI	ElectricityI	SepticTanI	AerobicPe
Apartment: Dwelling U	11727725	7393566	9727	111	1272	1911	10.33	87.46	
General O: 1000sqft	3234754	1982591	9727	111	1272	1911	10.33	87.46	
Other Non: 1000sqft	0	0	9727	111	1272	1911	10.33	87.46	
Parking Lo Space	0	0	9727	111	1272	1911	10.33	87.46	

tblWater

Anaerobic:	AnaDigest	AnaDigest	Cogen	Comb	Digest	Gas	Percent
2.21	100		0				
2.21	100		0				
2.21	100		0				
2.21	100		0				

tblSolidWaste

SolidWaste	SolidWaste	SolidWaste	LandfillNo	LandfillCa	LandfillCapture	GasEnergy	Recovery
Apartment: Dwelling U	82.8	6	94	0			
General O: 1000sqft	16.93	6	94	0			
Other Non: 1000sqft	0	6	94	0			
Parking Lo Space	0	6	94	0			

tblLandUseChange

Vegetation Vegetation AcresBegin AcresEnd CO2peracre



BroadSpec NumberOf CO2perTree

## tblConstEquipMitigation

ConstMitig	FuelType	Tier	NumberOf	TotalNumt	DPF	OxidationCatalyst
Air Compr	Diesel	Tier 3	1	1	No Change	0
Concrete/ll	Diesel	Tier 3	1	1	No Change	0
Cranes	Diesel	Tier 3	1	1	No Change	0
Excavators	Diesel	Tier 3	4	4	No Change	0
Forklifts	Diesel	Tier 3	3	3	No Change	0
Generator	Diesel	Tier 3	1	1	No Change	0
Graders	Diesel	Tier 3	1	1	No Change	0
Pavers	Diesel	Tier 3	2	2	No Change	0
Paving Eq	Diesel	Tier 3	2	2	No Change	0
Rollers	Diesel	Tier 3	2	2	No Change	0
Rubber Tir	Diesel	Tier 3	6	6	No Change	0
Tractors/L	Diesel	Tier 3	10	10	No Change	0
Welders	Diesel	Tier 3	1	1	No Change	0

tblConstDustMitigation

SoilStabiliz	SoilStabiliz	SoilStabiliz	ReplaceGr	ReplaceGr	ReplaceGr	WaterExpc	WaterExpc	WaterExpc	WaterExpc
1	46	46	1	5	5	1	3	61	61

tblConstDustMitigation

WaterUnp	WaterUnp	WaterUnp	WaterUnp	CleanPavedRoadPercentReduction
1	1	69	15	0

tblLandUseMitigation

ProjectSet	IncreaseD	IncreaseD	IncreaseD	IncreaseD	ImproveW	ImproveW	ImproveD	ImproveD	IncreaseTr
Urban	1	38		1	1	0.25	1	0.25	1

tblLandUseMitigation

IncreaseTr	IntegrateB	IntegrateB	ImprovePe	ImprovePe	ProvideTra	ProvideTra	ProvideTra	Implement	Implement
0.9	1	9	1	Project Site	0			0	

tblLandUseMitigation

LimitParkir	LimitParkir	UnbundleF	UnbundleF	OnStreetM	OnStreetM	ProvideBR	ProvideBR	ExpandTræ	ExpandTræ
0		0		0		0		0	

tblLandUseMitigation

IncreaseTr IncreaseTr IncreaseTransitFrequencyHeadwaysPercentReduction  
0



tblCommuteMitigation

Implement Implement Implement TransitSub TransitSub TransitSub Implement Implement Workplace Workplace  
0 0 0 0 0 0 0 0

tblCommuteMitigation

Workplace Encourage	Encourage	Encourage	Encourage	MarketCon	MarketCon	Employee\	Employee\	Employee\
0				0		0		2

tblCommuteMitigation

ProvideRic	ProvideRic	Implement	Implement	SchoolBusProgram	PercentFamilyUsing
0		0			

tblAreaMitigation

Landscape	Landscape	Landscape	Landscape	Landscape	Landscape	UseLowVC	UseLowVC	UseLowVC	UseLowVC
0	0	0	0	0	0	1	50	1	100

tblAreaMitigation

UseLowVC	UseLowVC	UseLowVC	UseLowVC	HearthOnly	NoHearthC	UseLowVOC	CleaningSuppliesCheck
1	250	1	250	0	1	1	

tblEnergyMitigation

ExceedTitl	ExceedTitl	InstallHigh	InstallHigh	OnSiteRer	KwhGener	KwhGener	PercentOfI	PercentOfElectricityUs
1	15	1	50	0	0		0	

seGenerated

tblApplianceMitigation

Appliance	Appliance	PercentImprovement
ClothWasher		30
DishWasher		15
Fan		50
Refrigerator		15



tblWaterMitigation

ApplyWate	ApplyWate	ApplyWate	UseReclaii	PercentOu	PercentInd	UseGreyW	PercentOu	PercentInd	InstallLowf
0	0	0	0	0	0	0	0	0	1

tblWaterMitigation

PercentRe	InstallLowf	PercentRe	InstallLowf	PercentRe	InstallLowf	PercentRe	TurfReduc	TurfReduc	TurfReduc
32	1	18	1	20	1	20	0	0	0

tblWaterMitigation

UseWaterf	UseWaterf	WaterEffici	MAWA	ETWU
0	6.1	0	0	0

tblWasteMitigation

InstituteRe	InstituteRecyclingAndCompostingServices	WastePercentReduction
1	50	

tblOperationalOffRoadEquipment

OperOffRc OperOffRc OperHours OperDaysI OperHorse OperLoadf OperFuelType

tblRemarks

SubModule	Phase	Narr	Season	Remarks
1				
3				463 residents based on a conservative assumption
4				Commercial/Retail - Mixed
8				Per Project Description, Demolition would occur over a 1 month period, Site pr
9				11,720 cubic yards of demo material is approximately 4,643 square feet
15				No woodstoves, No fireplaces
25				Examples of Constructin-Related Fugitive Dust Emissions Control Measures
27				
29				
30				
32				
33				

tblRemarks

Use, therefore lot acreage has 0 value. Other Non-Asphalt Surface include common open space area  
Prep/Grading would occur over 4-6 month period, building construction 11 months

Source: SCAQMD, 2012





**Summary**

Filename 831\_Data.042  
Serial Number 3171  
Model Model 831  
Firmware Version 2.205  
User  
Location  
Job Description  
Note  
Measurement Description  
Start 2014/07/23 10:19:47  
Stop 2014/07/23 10:35:49  
Duration 0:16:02.2  
Run Time 0:16:02.2  
Pause 0:00:00.0

Pre Calibration 2014/07/22 14:42:31  
Post Calibration None  
Calibration Deviation ---

**Overall Settings**

RMS Weight A Weighting  
Peak Weight A Weighting  
Detector Slow  
Preamp PRM831  
Microphone Correction Off  
Integration Method Linear  
OBA Range Normal  
OBA Bandwidth 1/1 and 1/3  
OBA Freq. Weighting A Weighting  
OBA Max Spectrum Bin Max  
Gain 0.0 dB  
Overload 144.8 dB

	<b>A</b>	<b>C</b>	<b>Z</b>
Under Range Peak	<b>77.3</b>	74.3	79.3 dB
Under Range Limit	<b>26.5</b>	26.9	32.6 dB
Noise Floor	17.3	17.7	23.1 dB

**Results**

L<sub>Aeq</sub> 58.9 dB  
L<sub>AE</sub> 88.7 dB  
E<sub>A</sub> 82.104  $\mu\text{Pa}^2\text{h}$   
L<sub>Apeak</sub> (max) 2014/07/23 10:19:53 89.8 dB  
L<sub>ASmax</sub> 2014/07/23 10:19:53 73.3 dB  
L<sub>ASmin</sub> 2014/07/23 10:28:31 54.9 dB

**Summary**

Filename 831\_Data.039  
Serial Number 3171  
Model Model 831  
Firmware Version 2.205

User

Location

Job Description

Note

**Measurement Description**

Start 2014/07/23 9:21:21  
Stop 2014/07/23 9:37:24  
Duration 0:16:02.6  
Run Time 0:16:02.6  
Pause 0:00:00.0

Pre Calibration 2014/07/22 14:42:31  
Post Calibration None  
Calibration Deviation ---

**Overall Settings**

RMS Weight A Weighting  
Peak Weight A Weighting  
Detector Slow  
Preamp PRM831  
Microphone Correction Off  
Integration Method Linear  
OBA Range Normal  
OBA Bandwidth 1/1 and 1/3  
OBA Freq. Weighting A Weighting  
OBA Max Spectrum Bin Max  
Gain 0.0 dB  
Overload 144.8 dB

	<b>A</b>	<b>C</b>	<b>Z</b>
Under Range Peak	<b>77.3</b>	74.3	79.3 dB
Under Range Limit	<b>26.5</b>	26.9	32.6 dB
Noise Floor	17.3	17.7	23.1 dB

**Results**

L<sub>Aeq</sub> 65.9 dB  
L<sub>AE</sub> 95.8 dB  
E<sub>A</sub> 419.937  $\mu\text{Pa}^2\text{h}$   
L<sub>Apeak</sub> (max) 2014/07/23 9:26:04 91.8 dB  
L<sub>ASmax</sub> 2014/07/23 9:26:05 78.4 dB  
L<sub>ASmin</sub> 2014/07/23 9:37:23 55.6 dB

**Summary**

Filename 831\_Data.041  
Serial Number 3171  
Model Model 831  
Firmware Version 2.205  
User  
Location  
Job Description  
Note  
Measurement Description  
Start 2014/07/23 10:00:24  
Stop 2014/07/23 10:16:26  
Duration 0:16:02.6  
Run Time 0:16:02.6  
Pause 0:00:00.0  
  
Pre Calibration 2014/07/22 14:42:31  
Post Calibration None  
Calibration Deviation ---

**Overall Settings**

RMS Weight A Weighting  
Peak Weight A Weighting  
Detector Slow  
Preamp PRM831  
Microphone Correction Off  
Integration Method Linear  
OBA Range Normal  
OBA Bandwidth 1/1 and 1/3  
OBA Freq. Weighting A Weighting  
OBA Max Spectrum Bin Max  
Gain 0.0 dB  
Overload 144.8 dB

	<b>A</b>	<b>C</b>	<b>Z</b>
Under Range Peak	<b>77.3</b>	74.3	79.3 dB
Under Range Limit	<b>26.5</b>	26.9	32.6 dB
Noise Floor	17.3	17.7	23.1 dB

**Results**

LAeq 55.3 dB  
LAE 85.2 dB  
EA 36.379  $\mu\text{Pa}^2\text{h}$   
LAp<sub>peak</sub> (max) 2014/07/23 10:15:44 81.1 dB  
LAS<sub>max</sub> 2014/07/23 10:07:08 66.6 dB  
LAS<sub>min</sub> 2014/07/23 10:05:58 46.5 dB

**Summary**

Filename 831\_Data.038  
Serial Number 3171  
Model Model 831  
Firmware Version 2.205

User

Location

Job Description

Note

**Measurement Description**

Start 2014/07/23 9:00:32  
Stop 2014/07/23 9:16:34  
Duration 0:16:02.2  
Run Time 0:16:02.2  
Pause 0:00:00.0

Pre Calibration 2014/07/22 14:42:31  
Post Calibration None  
Calibration Deviation ---

**Overall Settings**

RMS Weight A Weighting  
Peak Weight A Weighting  
Detector Slow  
Preamp PRM831  
Microphone Correction Off  
Integration Method Linear  
OBA Range Normal  
OBA Bandwidth 1/1 and 1/3  
OBA Freq. Weighting A Weighting  
OBA Max Spectrum Bin Max  
Gain 0.0 dB  
Overload 144.8 dB

	<b>A</b>	<b>C</b>	<b>Z</b>
Under Range Peak	<b>77.3</b>	74.3	79.3 dB
Under Range Limit	<b>26.5</b>	26.9	32.6 dB
Noise Floor	17.3	17.7	23.1 dB

**Results**

LAeq 57.3 dB  
LAE 87.1 dB  
EA 57.004  $\mu\text{Pa}^2\text{h}$   
LApeak (max) 2014/07/23 9:06:24 97.4 dB  
LASmax 2014/07/23 9:01:46 75.6 dB  
LASmin 2014/07/23 9:04:49 39.0 dB

**Summary**

Filename 831\_Data.040  
Serial Number 3171  
Model Model 831  
Firmware Version 2.205

User

Location

Job Description

Note

**Measurement Description**

Start 2014/07/23 9:41:44  
Stop 2014/07/23 9:57:46  
Duration 0:16:01.8  
Run Time 0:16:01.8  
Pause 0:00:00.0

Pre Calibration 2014/07/22 14:42:31  
Post Calibration None  
Calibration Deviation ---

**Overall Settings**

RMS Weight A Weighting  
Peak Weight A Weighting  
Detector Slow  
Preamp PRM831  
Microphone Correction Off  
Integration Method Linear  
OBA Range Normal  
OBA Bandwidth 1/1 and 1/3  
OBA Freq. Weighting A Weighting  
OBA Max Spectrum Bin Max  
Gain 0.0 dB  
Overload 144.8 dB

	<b>A</b>	<b>C</b>	<b>Z</b>
Under Range Peak	<b>77.3</b>	74.3	79.3 dB
Under Range Limit	<b>26.5</b>	26.9	32.6 dB
Noise Floor	17.3	17.7	23.1 dB

**Results**

L<sub>Aeq</sub> 70.6 dB  
L<sub>AE</sub> 100.4 dB  
E<sub>A</sub> 1.231 mPa<sup>2</sup>h  
L<sub>Apeak</sub> (max) 2014/07/23 9:46:05 101.6 dB  
L<sub>ASmax</sub> 2014/07/23 9:55:31 85.8 dB  
L<sub>ASmin</sub> 2014/07/23 9:42:49 51.1 dB



2

**NOISE LEVEL CONTOURS - Existing Plus Project Weekday Off-Site ADT Volumes**

ROADWAY NAME Segment	Land Use	Lanes	Median Width	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor (ft)	Alpha Factor (1)
<b>Pacific Ave n/o Broadway</b>							
Existing 2014		2	0	6,342	40	75	0
Future 2016 w/o Project		2	0	6,556	40	75	0
Future 2016 w/ Project		2	0	6,578	40	75	0
<b>Pacific Ave s/o Broadway</b>							
Existing 2014		2	0	6,386	40	75	0
Future 2016 w/o Project		2	0	6,628	40	75	0
Future 2016 w/ Project		2	0	6,710	40	75	0
<b>Broadway e/o Pacific Ave</b>							
Existing 2014		2	0	3,553	40	75	0
Future 2016 w/o Project		2	0	3,603	40	75	0
Future 2016 w/ Project		2	0	3,707	40	75	0
<b>Broadway w/o Pacific Ave</b>							
Existing 2014		2	0	2,596	40	75	0
Future 2016 w/o Project		2	0	2,552	40	75	0
Future 2016 w/ Project		2	0	2,717	40	75	0

(1) Alpha Factor: Coefficient of absorption relating to the effects of the ground surface. An alpha factor of 0 indicates acoustically "hard" site such as asphalt. An alpha factor of 0.5 indicates that the site is an acoustically "soft" site such as cover.

Assumed 24-Hour Traffic Distribution: Day Evening Night

Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

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Barrier	Vehicle Mix		dB(A) CNEL	Traffic Volumes										Ref. Energy Level: Dist			
	Attn. dB(A)	Medium Trucks		Heavy Trucks	Day	Eve	Night	MTd	HTd	MTe	HTe	MTn	HTn	A	MT	HT	Adj
	0	1.8%		0.7%	60.8	####	805	609	100	40	6	1	9	4	67.4	76.3	81.2
0	1.8%	0.7%	61.0	####	833	629	103	41	6	1	9	4	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	61.0	####	835	631	104	41	6	1	9	4	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	60.8	####	811	613	100	40	6	1	9	4	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	61.0	####	842	636	104	41	6	1	9	4	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	61.1	####	852	644	106	42	6	1	9	4	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	58.3	####	451	341	56	22	3	1	5	2	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	58.4	####	458	346	57	22	3	1	5	2	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	58.5	####	471	356	58	23	3	1	5	2	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	56.9	####	330	249	41	16	2	1	4	1	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	56.9	####	324	245	40	16	2	1	3	1	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	57.1	####	345	261	43	17	2	1	4	2	67.4	76.3	81.2	-1.8	

that the site is an  
vegetative ground

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Ld				Le				Ln			
A	MT	HT	Total	A	MT	HT	Total	A	MT	HT	Total
60.2	52.4	53.2	61.6	57.2	44.8	43.0	57.6	44.0	42.9	44.0	48.4
60.4	52.5	53.3	61.7	57.4	44.9	43.2	57.8	44.2	43.1	44.1	48.6
60.4	52.5	53.3	61.7	57.4	44.9	43.2	57.8	44.2	43.1	44.1	48.6
60.3	52.4	53.2	61.6	57.3	44.8	43.1	57.7	44.1	42.9	44.0	48.5
60.4	52.6	53.4	61.8	57.4	45.0	43.2	57.8	44.2	43.1	44.1	48.6
60.5	52.6	53.4	61.8	57.5	45.0	43.3	57.9	44.3	43.2	44.2	48.7
57.7	49.8	50.7	59.0	54.7	42.3	40.5	55.1	41.5	40.4	41.4	45.9
57.8	49.9	50.7	59.1	54.8	42.3	40.6	55.2	41.6	40.5	41.5	46.0
57.9	50.0	50.9	59.2	54.9	42.4	40.7	55.3	41.7	40.6	41.6	46.1
56.3	48.5	49.3	57.7	53.4	40.9	39.1	53.8	40.2	39.0	40.1	44.6
56.3	48.4	49.2	57.6	53.3	40.8	39.1	53.7	40.1	39.0	40.0	44.5
56.5	48.7	49.5	57.9	53.6	41.1	39.3	54.0	40.4	39.2	40.3	44.8

**Project Name**  
**Weekday AM/PM Peak Hour Volumes**

rev. (Date)

Intersection: 2  
 Broadway & Kenilworth Ave

**Kenilworth Ave**

**Southbound**

	<u>right</u>	<u>through</u>	<u>left</u>
Existing 2014	22	0	34
Future 2016 w/o	11	0	6
Future 2016 w/ F	22	0	34

**Eastbound**

Broadway		<u>left</u>	<u>through</u>	<u>right</u>
	Existing 2014	2	226	0
	Future 2016 w/o	1	233	0
	Future 2016 w/ F	2	234	0

**Westbound**

Existing 2014
Future 2016 w/o
Future 2016 w/ F

N  
 W        E  
           S

**Northbound**

	<u>left</u>	<u>through</u>	<u>right</u>
Existing 2014	0	0	0
Future 2016 w/o	0	0	0
Future 2016 w/ F	0	0	0

ADT

Road	Kenilworth Ave		Broadway
Leg	North of	South of	East of
Cross Street	Broadway		Kenilworth
Existing 2010	374.0	0.0	2,645.5
Future 2016 w/o	132.0	0.0	2,607.0
Future 2016 w/ P	374.0	0.0	2,794.0

<u>right</u>	<u>through</u>	<u>left</u>
10	211	0
6	229	0
10	230	0

drway
West of
North Ave
2,535.5
2,607.0
2,684.0

**NOISE LEVEL CONTOURS - Existing Plus Project Weekday Off-Site ADT Volumes**

ROADWAY NAME Segment	Land Use	Lanes	Median Width	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor (ft)	Alpha Factor (1)
<b>Kenilworth Ave n/o</b>							
Existing 2014		2	0	374	40	75	0
Future 2016 w/o Project		2	0	132	40	75	0
Future 2016 w/ Project		2	0	374	40	75	0
<b>Kenilworth Ave s/o</b>							
Existing 2014		2	0	0	40	75	0
Future 2016 w/o Project		2	0	0	40	75	0
Future 2016 w/ Project		2	0	0	40	75	0
<b>Broadway e/o Kenilworth</b>							
Existing 2014		2	0	2,646	40	75	0
Future 2016 w/o Project		2	0	2,607	40	75	0
Future 2016 w/ Project		2	0	2,794	40	75	0
<b>Broadway w/o Kenilworth</b>							
Existing 2014		2	0	2,536	40	75	0
Future 2016 w/o Project		2	0	2,607	40	75	0
Future 2016 w/ Project		2	0	2,684	40	75	0

(1) Alpha Factor: Coefficient of absorption relating to the effects of the ground surface. An alpha factor of 0 indicates acoustically "hard" site such as asphalt. An alpha factor of 0.5 indicates that the site is an acoustically "soft" site such as cover.

Assumed 24-Hour Traffic Distribution: Day Evening Night

Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

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Barrier	Vehicle Mix		dB(A) CNEL	Traffic Volumes									Ref. Energy Level: Dist				
	Attn. dB(A)	Medium Trucks		Heavy Trucks	Day	Eve	Night	MTd	HTd	MTe	HTe	MTn	HTn	A	MT	HT	Adj
	0	1.8%		0.7%	48.5	291	47	36	6	2	0	0	1	0	67.4	76.3	81.2
0	1.8%	0.7%	44.0	103	17	13	2	1	0	0	0	0	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	48.5	291	47	36	6	2	0	0	1	0	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	#NUM!	0	0	0	0	0	0	0	0	0	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	#NUM!	0	0	0	0	0	0	0	0	0	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	#NUM!	0	0	0	0	0	0	0	0	0	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	57.0	####	336	254	42	16	2	1	4	1	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	57.0	####	331	250	41	16	2	1	4	1	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	57.3	####	355	268	44	17	3	1	4	2	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	56.8	####	322	243	40	16	2	1	3	1	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	57.0	####	331	250	41	16	2	1	4	1	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	57.1	####	341	258	42	17	2	1	4	2	67.4	76.3	81.2	-1.8	

that the site is an  
vegetative ground

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Ld				Le				Ln			
A	MT	HT	Total	A	MT	HT	Total	A	MT	HT	Total
47.9	40.1	40.9	49.3	44.9	32.5	30.7	45.3	31.8	30.6	31.7	36.1
43.4	35.5	36.4	44.7	40.4	28.0	26.2	40.8	27.2	26.1	27.1	31.6
47.9	40.1	40.9	49.3	44.9	32.5	30.7	45.3	31.8	30.6	31.7	36.1

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#####  
#####

56.4	48.6	49.4	57.8	53.4	41.0	39.2	53.8	40.2	39.1	40.2	44.6
56.4	48.5	49.3	57.7	53.4	40.9	39.2	53.8	40.2	39.0	40.1	44.6
56.7	48.8	49.6	58.0	53.7	41.2	39.5	54.1	40.5	39.3	40.4	44.9

56.2	48.4	49.2	57.6	53.3	40.8	39.0	53.7	40.1	38.9	40.0	44.5
56.4	48.5	49.3	57.7	53.4	40.9	39.2	53.8	40.2	39.0	40.1	44.6
56.5	48.6	49.5	57.8	53.5	41.0	39.3	53.9	40.3	39.2	40.2	44.7

**Project Name**  
**Weekday AM/PM Peak Hour Volumes**

rev. (Date)

Intersection: 3  
 Broadway & San Fernando Rd

**San Fernando Rd**

**Southbound**

	<u>right</u>	<u>through</u>	<u>left</u>
Existing 2014	123	1,057	89
Future 2016 w/o	125	1,086	90
Future 2016 w/ F	125	1,078	90

**Eastbound**

	<u>left</u>	<u>through</u>	<u>right</u>
Existing 2014	36	51	38
Future 2016 w/o	37	52	39
Future 2016 w/ F	37	60	39

**Westbound**

Existing 2014
Future 2016 w/o
Future 2016 w/ F

Broadway

N  
 W       E  
       S

**Northbound**

	<u>left</u>	<u>through</u>	<u>right</u>
Existing 2014	57	622	78
Future 2016 w/o	58	657	79
Future 2016 w/ F	58	657	80

ADT

Road	San Fernando Rd		Broadway
Leg	North of	South of	East of
Cross Street	Broadway		San Fernando Rd
Existing 2010	11,121.0	11,022.0	3,135.0
Future 2016 w/o	11,473.0	11,374.0	3,124.0
Future 2016 w/ P	11,429.0	11,335.5	3,173.5

<u>right</u>	<u>through</u>	<u>left</u>
95	105	152
91	107	149
91	107	149

dway
West of
ando Rd
2,255.0
2,299.0
2,343.0

2

**NOISE LEVEL CONTOURS - Existing Plus Project Weekday Off-Site ADT Volumes**

ROADWAY NAME Segment	Land Use	Lanes	Median Width	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor (ft)	Alpha Factor (1)
<b>San Fernando Rd n/o</b>							
Existing 2014		2	0	11,121	40	75	0
Future 2016 w/o Project		2	0	11,473	40	75	0
Future 2016 w/ Project		2	0	11,429	40	75	0
<b>San Fernando Rd s/o</b>							
Existing 2014		2	0	11,022	40	75	0
Future 2016 w/o Project		2	0	11,374	40	75	0
Future 2016 w/ Project		2	0	11,336	40	75	0
<b>Broadway e/o San Fernando</b>							
Existing 2014		2	0	3,135	40	75	0
Future 2016 w/o Project		2	0	3,124	40	75	0
Future 2016 w/ Project		2	0	3,174	40	75	0
<b>Broadway w/o San Fernando</b>							
Existing 2014		2	0	2,255	40	75	0
Future 2016 w/o Project		2	0	2,299	40	75	0
Future 2016 w/ Project		2	0	2,343	40	75	0

(1) Alpha Factor: Coefficient of absorption relating to the effects of the ground surface. An alpha factor of 0 indicates acoustically "hard" site such as asphalt. An alpha factor of 0.5 indicates that the site is an acoustically "soft" site such as cover.

Assumed 24-Hour Traffic Distribution: Day Evening Night

Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

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Barrier	Vehicle Mix			Traffic Volumes										Ref. Energy Level: Dist			
	Attn.	Medium	Heavy	dB(A) CNEL	Day	Eve	Night	MTd	HTd	MTe	HTe	MTn	HTn	A	MT	HT	Adj
	dB(A)	Trucks	Trucks														
0	1.8%	0.7%	63.3	####	####	####	175	69	10	2	15	6	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	63.4	####	####	####	181	72	10	2	16	6	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	63.4	####	####	####	180	71	10	2	15	6	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	63.2	####	####	####	173	69	10	2	15	6	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	63.4	####	####	####	179	71	10	2	15	6	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	63.3	####	####	####	178	71	10	2	15	6	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	57.8	####	398	301	49	20	3	1	4	2	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	57.7	####	397	300	49	19	3	1	4	2	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	57.8	####	403	305	50	20	3	1	4	2	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	56.3	####	286	216	35	14	2	0	3	1	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	56.4	####	292	221	36	14	2	0	3	1	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	56.5	####	298	225	37	15	2	0	3	1	67.4	76.3	81.2	-1.8	

that the site is an  
vegetative ground

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Ld				Le				Ln			
A	MT	HT	Total	A	MT	HT	Total	A	MT	HT	Total

62.7	54.8	55.6	64.0	59.7	47.2	45.5	60.1	46.5	45.3	46.4	50.9
62.8	54.9	55.8	64.1	59.8	47.4	45.6	60.2	46.6	45.5	46.5	51.0
62.8	54.9	55.7	64.1	59.8	47.3	45.6	60.2	46.6	45.5	46.5	51.0

62.6	54.8	55.6	64.0	59.6	47.2	45.4	60.0	46.4	45.3	46.4	50.8
62.8	54.9	55.7	64.1	59.8	47.3	45.6	60.2	46.6	45.4	46.5	51.0
62.7	54.9	55.7	64.1	59.8	47.3	45.5	60.2	46.6	45.4	46.5	51.0

57.2	49.3	50.1	58.5	54.2	41.7	40.0	54.6	41.0	39.8	40.9	45.4
57.1	49.3	50.1	58.5	54.2	41.7	39.9	54.6	41.0	39.8	40.9	45.4
57.2	49.4	50.2	58.6	54.2	41.8	40.0	54.6	41.0	39.9	40.9	45.4

55.7	47.9	48.7	57.1	52.8	40.3	38.5	53.1	39.6	38.4	39.5	43.9
55.8	48.0	48.8	57.2	52.8	40.4	38.6	53.2	39.6	38.5	39.5	44.0
55.9	48.0	48.9	57.2	52.9	40.5	38.7	53.3	39.7	38.6	39.6	44.1

**Project Name**  
**Weekday AM/PM Peak Hour Volumes**

rev. (Date)

Intersection: 4  
 Broadway & Central Ave

**Central Ave**

**Southbound**

	<u>right</u>	<u>through</u>	<u>left</u>
Existing 2014	62	407	96
Future 2016 w/o	86	555	141
Future 2016 w/ F	86	555	141

**Eastbound**

	<u>left</u>	<u>through</u>	<u>right</u>
Existing 2014	59	254	28
Future 2016 w/o	64	244	29
Future 2016 w/ F	64	263	29

Broadway

**Westbound**

Existing 2014
Future 2016 w/o
Future 2016 w/ F

N  
 W            E  
               S

**Northbound**

	<u>left</u>	<u>through</u>	<u>right</u>
Existing 2014	18	347	67
Future 2016 w/o	18	392	68
Future 2016 w/ F	18	392	68

ADT

Road	Central Ave		Broadway
Leg	North of	South of	East of
Cross Street	Broadway		Central Ave
Existing 2010	5,632.0	5,115.0	4,438.5
Future 2016 w/o	7,199.5	6,193.0	4,801.5
Future 2016 w/ P	7,199.5	6,193.0	4,928.0

<u>right</u>	<u>through</u>	<u>left</u>
53	274	63
71	285	64
71	289	64

dway
West of
al Ave
3,822.5
3,993.0
4,119.5

2

**NOISE LEVEL CONTOURS - Existing Plus Project Weekday Off-Site ADT Volumes**

ROADWAY NAME Segment	Land Use	Lanes	Median Width	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor	Alpha Factor (1)
<b>Central Ave n/o Broadway</b>							
Existing 2014		2	0	5,632	40	75	0
Future 2016 w/o Project		2	0	7,200	40	75	0
Future 2016 w/ Project		2	0	7,200	40	75	0
<b>Central Ave s/o Broadway</b>							
Existing 2014		2	0	5,115	40	75	0
Future 2016 w/o Project		2	0	6,193	40	75	0
Future 2016 w/ Project		2	0	6,193	40	75	0
<b>Broadway e/o Central Ave</b>							
Existing 2014		2	0	4,439	40	75	0
Future 2016 w/o Project		2	0	4,802	40	75	0
Future 2016 w/ Project		2	0	4,928	40	75	0
<b>Broadway w/o Central Ave</b>							
Existing 2014		2	0	3,823	40	75	0
Future 2016 w/o Project		2	0	3,993	40	75	0
Future 2016 w/ Project		2	0	4,120	40	75	0

(1) Alpha Factor: Coefficient of absorption relating to the effects of the ground surface. An alpha factor of 0 indicates acoustically "hard" site such as asphalt. An alpha factor of 0.5 indicates that the site is an acoustically "soft" site such as cover.

Assumed 24-Hour Traffic Distribution: Day Evening Night

Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

---



Barrier	Vehicle Mix		dB(A) CNEL	Traffic Volumes										Ref. Energy Level: Dist			
	Attn. dB(A)	Medium Trucks		Heavy Trucks	Day	Eve	Night	MTd	HTd	MTe	HTe	MTn	HTn	A	MT	HT	Adj
	0	1.8%		0.7%	60.3	####	715	541	89	35	5	1	8	3	67.4	76.3	81.2
0	1.8%	0.7%	61.4	####	914	691	113	45	7	1	10	4	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	61.4	####	914	691	113	45	7	1	10	4	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	59.9	####	650	491	80	32	5	1	7	3	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	60.7	####	787	595	97	39	6	1	8	3	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	60.7	####	787	595	97	39	6	1	8	3	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	59.3	####	564	426	70	28	4	1	6	3	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	59.6	####	610	461	76	30	4	1	6	3	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	59.7	####	626	473	78	31	4	1	7	3	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	58.6	####	485	367	60	24	3	1	5	2	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	58.8	####	507	383	63	25	4	1	5	2	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	58.9	####	523	395	65	26	4	1	6	2	67.4	76.3	81.2	-1.8	

that the site is an  
vegetative ground

---

Ld				Le				Ln			
A	MT	HT	Total	A	MT	HT	Total	A	MT	HT	Total
59.7	51.8	52.7	61.0	56.7	44.3	42.5	57.1	43.5	42.4	43.4	47.9
60.8	52.9	53.7	62.1	57.8	45.3	43.6	58.2	44.6	43.5	44.5	49.0
60.8	52.9	53.7	62.1	57.8	45.3	43.6	58.2	44.6	43.5	44.5	49.0
59.3	51.4	52.3	60.6	56.3	43.8	42.1	56.7	43.1	42.0	43.0	47.5
60.1	52.3	53.1	61.5	57.1	44.7	42.9	57.5	43.9	42.8	43.9	48.3
60.1	52.3	53.1	61.5	57.1	44.7	42.9	57.5	43.9	42.8	43.9	48.3
58.7	50.8	51.6	60.0	55.7	43.2	41.5	56.1	42.5	41.4	42.4	46.9
59.0	51.2	52.0	60.4	56.0	43.6	41.8	56.4	42.8	41.7	42.7	47.2
59.1	51.3	52.1	60.5	56.1	43.7	41.9	56.5	43.0	41.8	42.9	47.3
58.0	50.2	51.0	59.4	55.0	42.6	40.8	55.4	41.8	40.7	41.8	46.2
58.2	50.4	51.2	59.6	55.2	42.8	41.0	55.6	42.0	40.9	41.9	46.4
58.3	50.5	51.3	59.7	55.4	42.9	41.2	55.8	42.2	41.0	42.1	46.6

**Project Name**  
**Weekday AM/PM Peak Hour Volumes**

rev. (Date)

Intersection: 5  
 Pacific Ave & Wilson Ave

**Pacific Ave**

**Southbound**

	<u>right</u>	<u>through</u>	<u>left</u>
Existing 2014	26	740	94
Future 2016 w/o	23	765	98
Future 2016 w/ F	26	766	98

**Eastbound**

	<u>left</u>	<u>through</u>	<u>right</u>
Existing 2014	41	42	21
Future 2016 w/o	24	43	21
Future 2016 w/ F	41	43	21

Wilson Ave

**Westbound**

Existing 2014
Future 2016 w/o
Future 2016 w/ F

W N  
 S E

**Northbound**

	<u>left</u>	<u>through</u>	<u>right</u>
Existing 2014	11	424	17
Future 2016 w/o	11	441	17
Future 2016 w/ F	11	443	17

ADT

Road	Pacific Ave		Wilso
Leg	North of	South of	East of
Cross Street	Wilson Ave		Pacifi
Existing 2010	7,628.5	6,891.5	1,666.5
Future 2016 w/o	7,826.5	7,128.0	1,760.0
Future 2016 w/ P	7,953.0	7,144.5	1,760.0

<u>right</u>	<u>through</u>	<u>left</u>
62	48	40
72	49	41
72	49	41

n Ave
West of
c Ave
1,039.5
940.5
1,050.5

2

**NOISE LEVEL CONTOURS - Existing Plus Project Weekday Off-Site ADT Volumes**

ROADWAY NAME Segment	Land Use	Lanes	Median Width	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor	Alpha Factor (1)
<b>Pacific Ave n/o Wilson Ave</b>							
Existing 2014		2	0	7,629	40	75	0
Future 2016 w/o Project		2	0	7,827	40	75	0
Future 2016 w/ Project		2	0	7,953	40	75	0
<b>Pacific Ave s/o Wilson Ave</b>							
Existing 2014		2	0	6,892	40	75	0
Future 2016 w/o Project		2	0	7,128	40	75	0
Future 2016 w/ Project		2	0	7,145	40	75	0
<b>Wilson Ave e/o Pacific Ave</b>							
Existing 2014		2	0	1,667	40	75	0
Future 2016 w/o Project		2	0	1,760	40	75	0
Future 2016 w/ Project		2	0	1,760	40	75	0
<b>Wilson Ave w/o Pacific Ave</b>							
Existing 2014		2	0	1,040	40	75	0
Future 2016 w/o Project		2	0	941	40	75	0
Future 2016 w/ Project		2	0	1,051	40	75	0

(1) Alpha Factor: Coefficient of absorption relating to the effects of the ground surface. An alpha factor of 0 indicates acoustically "hard" site such as asphalt. An alpha factor of 0.5 indicates that the site is an acoustically "soft" site such as cover.

Assumed 24-Hour Traffic Distribution:

Day Evening Night

Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

---



Barrier	Vehicle Mix			Traffic Volumes										Ref. Energy	
	Attn.	Medium	Heavy	dB(A) CNEL	Day	Eve	Night	MTd	HTd	MTe	HTe	MTn	HTn	A	MT
	dB(A)	Trucks	Trucks												
0	1.8%	0.7%	61.6	5,927	969	732	120	48	7	2	10	4	67.4	76.3	
0	1.8%	0.7%	61.7	6,081	994	751	123	49	7	2	11	4	67.4	76.3	
0	1.8%	0.7%	61.8	6,179	####	763	125	50	7	2	11	4	67.4	76.3	
0	1.8%	0.7%	61.2	5,355	875	662	108	43	6	1	9	4	67.4	76.3	
0	1.8%	0.7%	61.3	5,538	905	684	112	44	6	1	10	4	67.4	76.3	
0	1.8%	0.7%	61.3	5,551	907	686	112	45	6	1	10	4	67.4	76.3	
0	1.8%	0.7%	55.0	1,295	212	160	26	10	2	0	2	1	67.4	76.3	
0	1.8%	0.7%	55.3	1,368	224	169	28	11	2	0	2	1	67.4	76.3	
0	1.8%	0.7%	55.3	1,368	224	169	28	11	2	0	2	1	67.4	76.3	
0	1.8%	0.7%	53.0	808	132	100	16	6	1	0	1	1	67.4	76.3	
0	1.8%	0.7%	52.5	731	119	90	15	6	1	0	1	1	67.4	76.3	
0	1.8%	0.7%	53.0	816	133	101	17	7	1	0	1	1	67.4	76.3	

that the site is an vegetative ground

---

Level: Dist Ld				Le				Ln					
HT	Adj	A	MT	HT	Total	A	MT	HT	Total	A	MT	HT	Total
81.2	-1.8	61.0	53.2	54.0	62.4	58.0	45.6	43.8	58.4	44.8	43.7	44.8	49.2
81.2	-1.8	61.1	53.3	54.1	62.5	58.2	45.7	43.9	58.5	45.0	43.8	44.9	49.4
81.2	-1.8	61.2	53.3	54.2	62.5	58.2	45.8	44.0	58.6	45.0	43.9	44.9	49.4
81.2	-1.8	60.6	52.7	53.6	61.9	57.6	45.1	43.4	58.0	44.4	43.3	44.3	48.8
81.2	-1.8	60.7	52.9	53.7	62.1	57.7	45.3	43.5	58.1	44.6	43.4	44.5	48.9
81.2	-1.8	60.7	52.9	53.7	62.1	57.8	45.3	43.5	58.2	44.6	43.4	44.5	49.0
81.2	-1.8	54.4	46.6	47.4	55.8	51.4	39.0	37.2	51.8	38.2	37.1	38.2	42.6
81.2	-1.8	54.7	46.8	47.6	56.0	51.7	39.2	37.5	52.1	38.5	37.3	38.4	42.9
81.2	-1.8	54.7	46.8	47.6	56.0	51.7	39.2	37.5	52.1	38.5	37.3	38.4	42.9
81.2	-1.8	52.4	44.5	45.3	53.7	49.4	36.9	35.2	49.8	36.2	35.1	36.1	40.6
81.2	-1.8	51.9	44.1	44.9	53.3	49.0	36.5	34.7	49.3	35.8	34.6	35.7	40.1
81.2	-1.8	52.4	44.6	45.4	53.8	49.4	37.0	35.2	49.8	36.2	35.1	36.1	40.6

**Project Name**  
**Weekday AM/PM Peak Hour Volumes**

rev. (Date)

Intersection: 6  
 Pacific Ave & Colorado Blvd

**Pacific Ave**

**Southbound**

	<u>right</u>	<u>through</u>	<u>left</u>
Existing 2014	266	467	54
Future 2016 w/o	271	482	55
Future 2016 w/ F	277	488	55

**Eastbound**

	<u>left</u>	<u>through</u>	<u>right</u>
Existing 2014	133	570	47
Future 2016 w/o	140	666	54
Future 2016 w/ F	141	666	54

**Westbound**

Existing 2014
Future 2016 w/o
Future 2016 w/ F

Colorado Blvd

N  
 W            E  
               S

**Northbound**

	<u>left</u>	<u>through</u>	<u>right</u>
Existing 2014	115	285	57
Future 2016 w/o	121	301	60
Future 2016 w/ F	121	302	60

ADT

Road	Pacific Ave		Colorac
Leg	North of	South of	East of
Cross Street	Colorado Blvd		Pacifi
Existing 2014	6,820.0	5,731.0	7,986.0
Future 2016 w/o	7,067.5	6,000.5	9,482.0
Future 2016 w/ P	7,144.5	6,039.0	9,482.0

<u>right</u>	<u>through</u>	<u>left</u>
35	665	71
36	834	73
36	834	73

do Blvd
West of
c Ave
9,878.0
11,473.0
11,511.5

2

**NOISE LEVEL CONTOURS - Existing Plus Project Weekday Off-Site ADT Volumes**

ROADWAY NAME Segment	Land Use	Lanes	Median Width	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor (ft)	Alpha Factor (1)
<b>Pacific Ave n/o Colorado</b>							
Existing 2014		2	0	6,820	40	75	0
Future 2016 w/o Project		2	0	7,068	40	75	0
Future 2016 w/ Project		2	0	7,145	40	75	0
<b>Pacific Ave s/o Colorado Blvd</b>							
Existing 2014		2	0	5,731	40	75	0
Future 2016 w/o Project		2	0	6,001	40	75	0
Future 2016 w/ Project		2	0	6,039	40	75	0
<b>Colorado Blvd e/o Pacific Ave</b>							
Existing 2014		2	0	7,986	40	75	0
Future 2016 w/o Project		2	0	9,482	40	75	0
Future 2016 w/ Project		2	0	9,482	40	75	0
<b>Colorado Blvd w/o Pacific</b>							
Existing 2014		2	0	9,878	40	75	0
Future 2016 w/o Project		2	0	11,473	40	75	0
Future 2016 w/ Project		2	0	11,512	40	75	0

(1) Alpha Factor: Coefficient of absorption relating to the effects of the ground surface. An alpha factor of 0 indicates acoustically "hard" site such as asphalt. An alpha factor of 0.5 indicates that the site is an acoustically "soft" site such as cover.

Assumed 24-Hour Traffic Distribution:

Day Evening Night

Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

---



Barrier	Vehicle Mix		dB(A) CNEL	Traffic Volumes										Ref. Energy Level: Dist			
	Attn. dB(A)	Medium Trucks		Heavy Trucks	Day	Eve	Night	MTd	HTd	MTe	HTe	MTn	HTn	A	MT	HT	Adj
	0	1.8%		0.7%	61.1	####	866	655	107	43	6	1	9	4	67.4	76.3	81.2
0	1.8%	0.7%	61.3	####	898	678	111	44	6	1	10	4	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	61.3	####	907	686	112	45	6	1	10	4	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	60.4	####	728	550	90	36	5	1	8	3	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	60.6	####	762	576	94	37	5	1	8	3	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	60.6	####	767	580	95	38	5	1	8	3	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	61.8	####	####	767	126	50	7	2	11	5	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	62.6	####	####	910	149	59	9	2	13	5	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	62.6	####	####	910	149	59	9	2	13	5	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	62.7	####	####	948	155	62	9	2	13	6	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	63.4	####	####	####	181	72	10	2	16	6	67.4	76.3	81.2	-1.8	
0	1.8%	0.7%	63.4	####	####	####	181	72	10	2	16	6	67.4	76.3	81.2	-1.8	

that the site is an  
vegetative ground

---

Ld				Le				Ln			
A	MT	HT	Total	A	MT	HT	Total	A	MT	HT	Total
60.5	52.7	53.5	61.9	57.6	45.1	43.3	57.9	44.4	43.2	44.3	48.8
60.7	52.8	53.7	62.0	57.7	45.2	43.5	58.1	44.5	43.4	44.4	48.9
60.7	52.9	53.7	62.1	57.8	45.3	43.5	58.2	44.6	43.4	44.5	49.0
59.8	51.9	52.8	61.1	56.8	44.3	42.6	57.2	43.6	42.5	43.5	48.0
60.0	52.1	53.0	61.3	57.0	44.5	42.8	57.4	43.8	42.7	43.7	48.2
60.0	52.2	53.0	61.3	57.0	44.6	42.8	57.4	43.8	42.7	43.7	48.2
61.2	53.4	54.2	62.6	58.2	45.8	44.0	58.6	45.0	43.9	45.0	49.4
62.0	54.1	54.9	63.3	59.0	46.5	44.8	59.4	45.8	44.7	45.7	50.2
62.0	54.1	54.9	63.3	59.0	46.5	44.8	59.4	45.8	44.7	45.7	50.2
62.1	54.3	55.1	63.5	59.2	46.7	44.9	59.6	46.0	44.8	45.9	50.4
62.8	54.9	55.8	64.1	59.8	47.4	45.6	60.2	46.6	45.5	46.5	51.0
62.8	55.0	55.8	64.2	59.8	47.4	45.6	60.2	46.6	45.5	46.5	51.0

---

**APPENDIX 4.8**

**Traffic Memo**



Traffic, Transportation, and Parking Consultants

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Glendale, CA 91206

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## 515 W. Broadway Project

### Traffic Impact Analysis

City Of Glendale, CA

September 22, 2014



Prepared by:

Jano Baghdanian, P.E.

JB & Associates, LLC

Traffic, Transportation & Parking Consultants

## Table of Contents

<b>1.0 INTRODUCTION</b> .....	1
<b>2.0 PROJECT LOCATION AND SITE DESCRIPTION</b> .....	2
<b>2.1 Project Location</b> .....	2
<b>2.2 Existing Development</b> .....	2
<b>2.3 Project Characteristics</b> .....	2
<b>3.0 SITE ACCESS AND CIRCULATION</b> .....	5
<b>3.1 Existing Site Access</b> .....	5
<b>3.2 Proposed Project Site Access</b> .....	5
<b>4.0 EXISTING SITE CONDITIONS</b> .....	8
<b>4.1 Freeway Access to Region</b> .....	8
<b>4.2 Surrounding Roadway Systems</b> .....	8
<b>4.3 Transit Service</b> .....	9
<b>5.0 EXISTING TRAFFIC VOLUMES</b> .....	13
<b>6.0 CONGESTION MANAGEMENT PROGRAM (CMP) TRAFFIC IMPACT</b> .....	16
<b>6.1 Intersections</b> .....	16
<b>6.2 Freeways</b> .....	16
<b>6.3 Transit</b> .....	16
<b>7.0 PROJECT TRIP GENERATION</b> .....	18
<b>7.2 Project Trip Generation Methodology</b> .....	18
<b>7.4 Project Trip Distribution &amp; Assignment</b> .....	20
<b>8.0 RELATED PROJECTS &amp; AMBIENT GROWTH</b> .....	27
<b>8.1 Trip Generation for Related Projects</b> .....	27
<b>8.2 Ambient Traffic Growth</b> .....	27
<b>9.0 METHOD OF TRAFFIC IMPACT ANALYSIS</b> .....	31
<b>9.1 Signalized Intersections</b> .....	31
<b>9.2 Non-Signalized Intersection</b> .....	32
<b>9.3 Residential Street Segment Analysis</b> .....	32
<b>10.0 TRAFFIC IMPACT ANALYSIS FINDINGS</b> .....	33
<b>10.1 Existing Level of Service</b> .....	34

10.2 Existing Plus Project Traffic Conditions .....	35
10.3 Future (Year 2016) Without Project Traffic Conditions .....	38
10.4 Future (Year 2016) With Project Traffic Conditions .....	40
10.5 Street Segment Analysis .....	43
11.0 CONSTRUCTION TRAFFIC ANALYSIS .....	44
11.1 Construction Staging .....	44
11.2 Construction Truck Traffic Demand .....	44
11.3 Construction Worker Traffic Demand .....	44
11.4 Construction Traffic Impacts.....	45
11.5 Construction Traffic Control & Haul Route Plan .....	46
12.0 CONCLUSION/MITIGATION MEASURES .....	47

# List of Figures

- Figure 1: Regional Location Map ..... 3
- Figure 2: Project Site and Surrounding Uses..... 4
- Figure 3: Proposed Site Plan ..... 7
- Figure 4: Existing Public Transit Route (MTA)..... 11
- Figure 5: Existing Public Transit Route (Beeline) ..... 12
- Figure 6: Lane Configurations ..... 14
- Figure 7: Existing traffic volumes (AM/PM Peak) ..... 15
- Figure 8: Proposed AM Project Trip Distribution..... 21
- Figure 9: Proposed PM Project Trip Distribution ..... 22
- Figure 10: Study Intersections ..... 23
- Figure 11: Trip Distribution at Project Driveways..... 24
- Figure 12: Trip Assignment at Project Driveways ..... 25
- Figure 13: Trip Assignment at Study Intersections ..... 26
- Figure 14: Related Project Trip Assignment..... 28
- Figure 15: Map of Related Projects..... 29
- Figure 16: Existing Plus Project (AM/PM Peak) Traffic Volumes ..... 37
- Figure 17: Future (Year 2016) Without Project (AM/PM Peak) Traffic Volumes..... 39
- Figure 18: Future (Year 2016) With Project (AM/PM Peak) Traffic Volumes ..... 42



## List of Tables

Table 1: Summary of Existing Transit Routes.....	10
Table 2: Project Trip Generation.....	19
Table 3: Related Project Trip Generation .....	30
Table 4: City of Glendale LOS Thresholds .....	31
Table 5: Existing Conditions LOS .....	34
Table 6: Existing Plus Project Conditions LOS .....	36
Table 7: Opening Year (2016) Without Project Conditions LOS .....	38
Table 8: Opening Year (2016) With Project Condition LOS.....	41
Table 9: Street Segment Analysis.....	43
Table 10: Construction Trip Generation .....	45
Table 11: Net Construction Trip Generation.....	46

## Appendices

Appendix A: Manual Traffic Counts

Appendix B: Level of Service Calculations

Appendix C: Explanation of Level of Service Categories

## 1.0 INTRODUCTION

This Traffic Impact Analysis is consistent with the traffic study guidelines as set forth by the City of Glendale and follows the requirements of the *2010 Congestion Management Program for Los Angeles County*. After a consultation with the City of Glendale Traffic & Transportation Division Staff, it was determined that a total of (6) intersections and (2) street segments would be analyzed and evaluated for potential project related traffic impacts. The method used by this traffic analysis to analyze the required intersections is the Intersection Capacity Utilization (ICU) Method. This method was used to evaluate the Level of Service (LOS) at each intersection by first determining their respective volume-to-capacity ratios.

This traffic study further includes an analysis of construction traffic and potential freeway impacts. Moreover, a review was conducted of the Los Angeles County Metropolitan Transportation Authority intersections and freeway monitoring stations to determine if a Congestion Management Program (CMP) impact analysis would be required for the proposed project.

The following scenarios were evaluated in this analysis:

- Existing AM and PM Peak Conditions
- Existing AM and PM Peak Conditions with proposed project
- Future conditions (Year 2016) without project (Existing plus related projects/ambient growth)
- Future conditions (Year 2016) with proposed project

The potential project related impacts were determined and required mitigations, if necessary, are included as part of the traffic analysis.

## 2.0 PROJECT LOCATION AND SITE DESCRIPTION

### 2.1 Project Location

As illustrated in **Figure 1**, the Project site is located within the City of Glendale (the “City”). The Project site is located approximately 1,800 feet east of the boundary between the Cities of Glendale and Los Angeles. Interstate 5 (I-5; Golden State Freeway), State Route (SR) 134 (Ventura Freeway), and SR 2 (Glendale Freeway) provide regional access to the Project site.

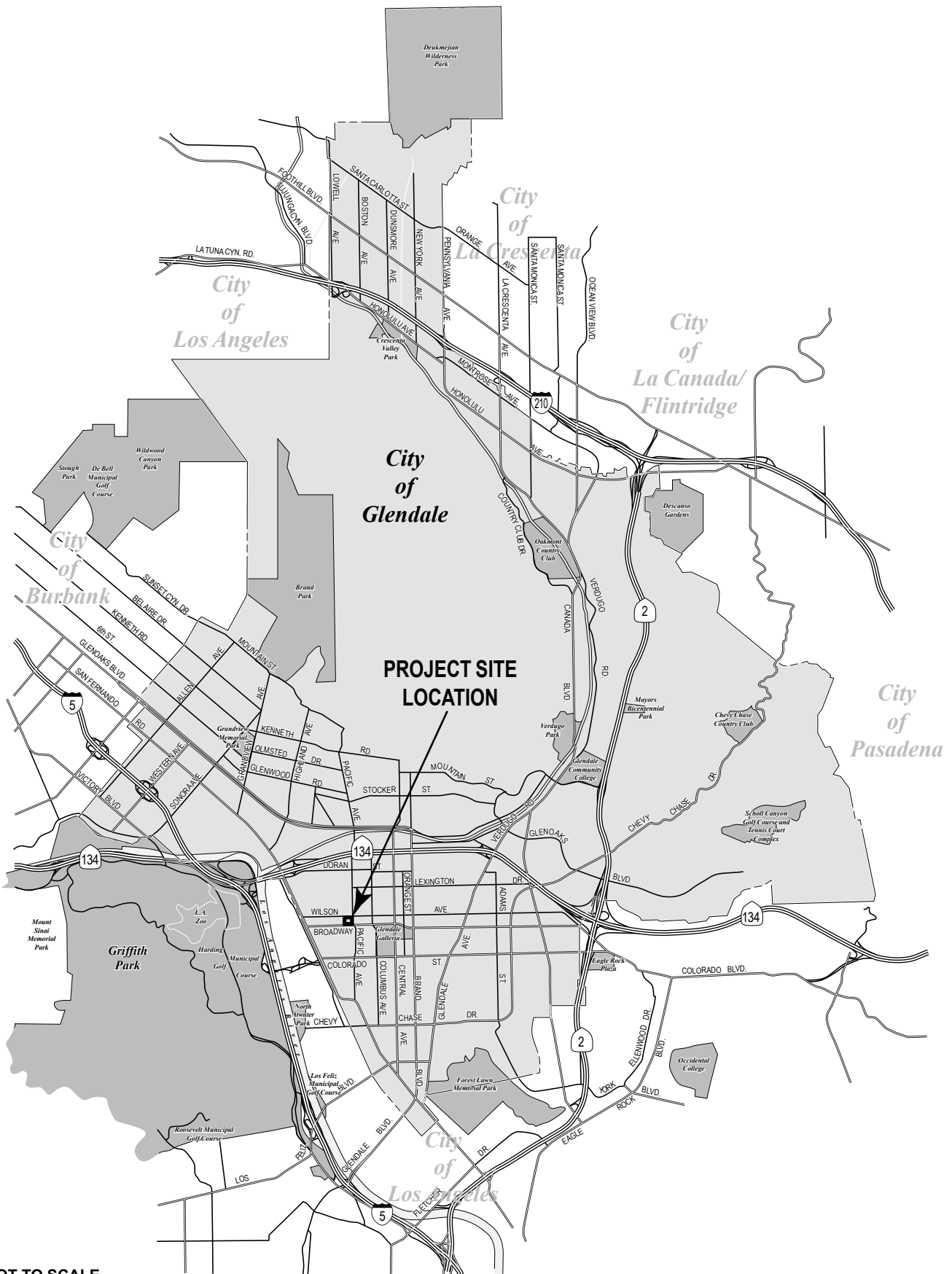
As illustrated in **Figure 2**, the Project site consists of nine contiguous parcels located on the north of Broadway and west of S. Pacific Avenue. The addresses are 515 W. Broadway and 104 N. Kenilworth Avenue. The Project site is bound on the south by W. Broadway, on the west by N. Kenilworth Avenue, on the north by six existing single-family residences and a 2-story apartment building, and on the east by S. Pacific Avenue.

### 2.2 Existing Development

The Project site is 1.78 acres (77,757 square feet) and is developed with a single-story retail store (Office Depot) with a surface parking lot on W. Broadway and N. Kenilworth Avenue, and a 2-story apartment building containing approximately 8–10 residential units, with a small two-car garage facing N. Kenilworth Avenue. Neither of these buildings is identified as a historic resource.

### 2.3 Project Characteristics

The 180 residential units would consist of 113 one-bedroom units, 60 two-bedroom units, and 7 studio units; 4 of the 7 studio units are designated as live/work units. Standard condominiums would be located from the second through fifth floors. The 4 live/work units would be located on the ground floor on Kenilworth Avenue. The second through fifth floors would contain 46, 49, 43 and 38 residential units, respectively. The Project would designate 9 of the residential units as affordable housing units. The first floor on Broadway and S. Pacific Avenue would contain 18,200 square feet of commercial space to promote pedestrian activity.



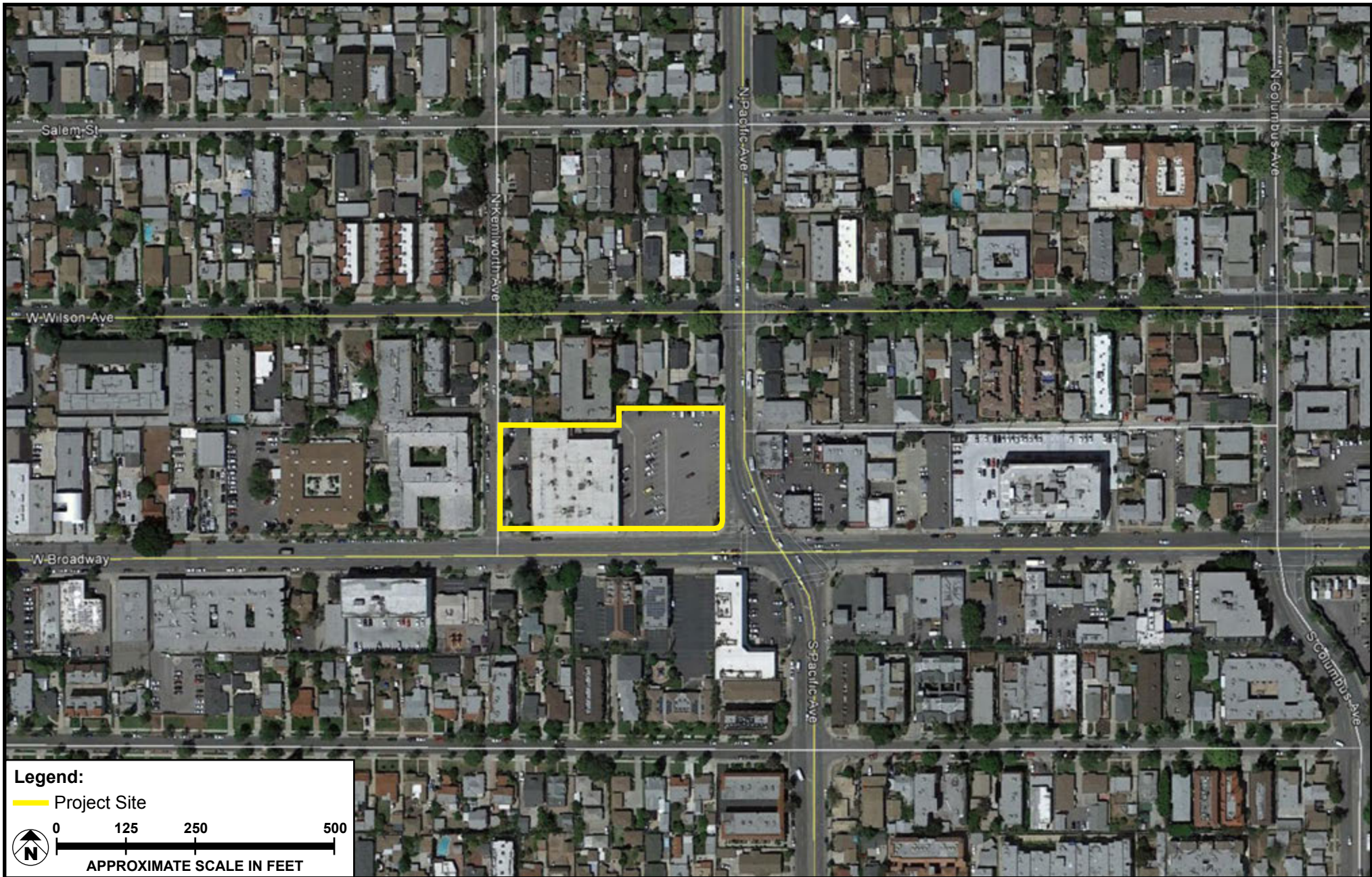
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SOURCE: Meridian Consultants, LLC - July 2014

FIGURE 1



Regional Location and Project Vicinity



SOURCE: Google Earth – 2014

FIGURE 2

## 3.0 SITE ACCESS AND CIRCULATION

### 3.1 Existing Site Access

Vehicle access to the existing land uses are provided through the following six driveways:

- (3) Three driveways on W. Broadway
- (1) One driveway on Pacific Avenue
- (2) Two driveways on Kenilworth Avenue

### 3.2 Proposed Project Site Access

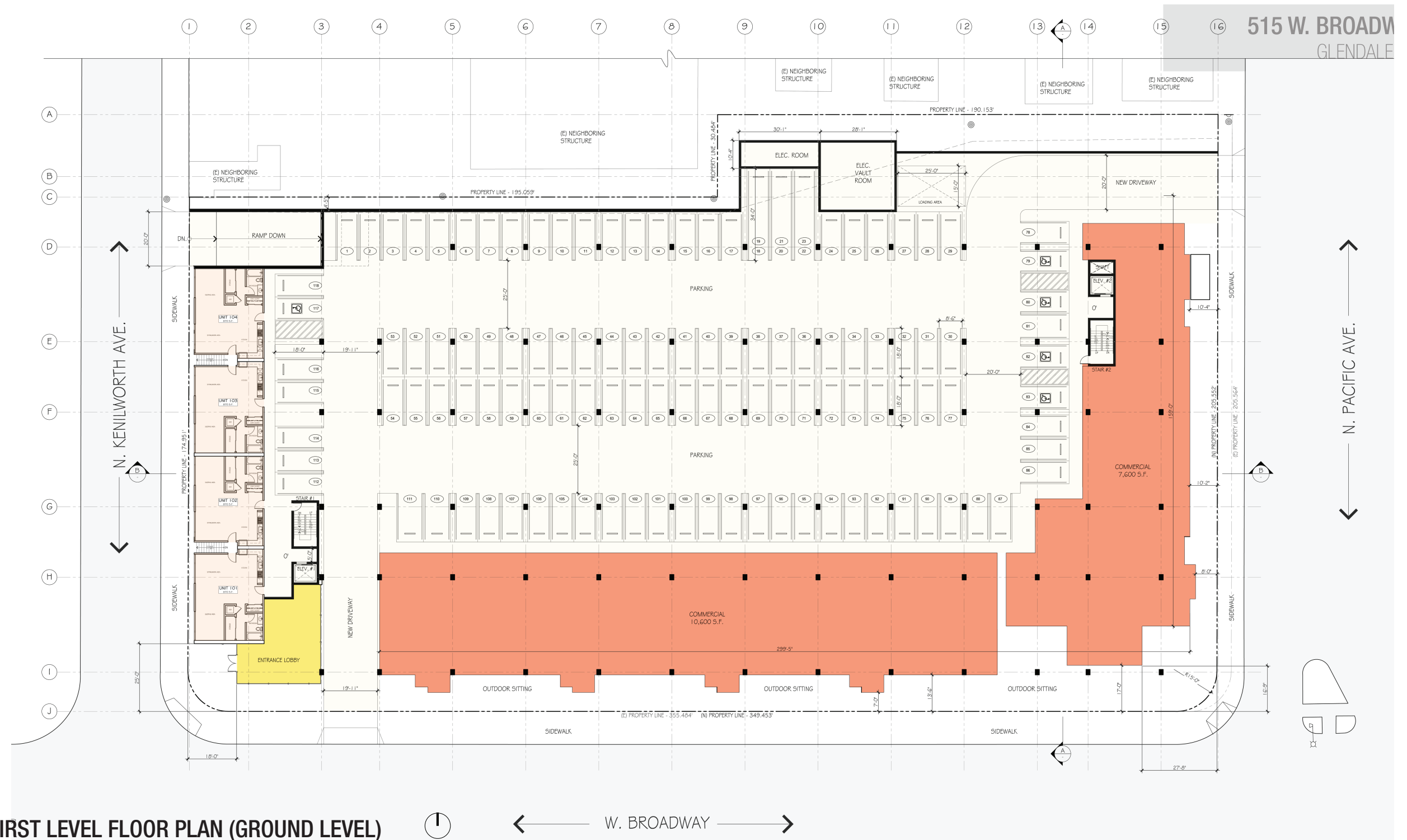
Access to the proposed development (and its subterranean parking structure) will be provided via the following three driveways:

- (1) W. Broadway
- (2) Pacific Avenue
- (3) Kenilworth Avenue

Please refer to **Figure 3** for an illustration of the proposed site plan. The following is a detailed description of the proposed site access driveways:

- (1) W. Broadway Driveway: This driveway is planned to be 20 feet in width and located approximately 60 feet east of Kenilworth Avenue. This driveway will serve as one of the Project's commercial access points. Due to the lane configuration of W. Broadway between Kenilworth Avenue and Pacific Avenue, it is conservatively assumed that Project traffic exiting onto W. Broadway from this driveway will only be travelling west during the peak hour periods.
- (2) Pacific Avenue Driveway: This driveway is planned to be approximately 20 feet in width and located 195 feet north of W. Broadway. This driveway will serve as one of the Project's commercial access points.
- (3) Kenilworth Avenue: This driveway is planned to be approximately 20 feet in width and located 175 feet north of W. Broadway. This driveway will serve as the Project's residential access to the subterranean parking structure.

As will be shown in the project trip distribution, the Project's residential trips will use the subterranean parking structure located on Kenilworth Avenue while the commercial trips will be distributed between the W. Broadway and Pacific Avenue driveways.



**FIRST LEVEL FLOOR PLAN (GROUND LEVEL)**

← W. BROADWAY →

FIRST LEVEL FLOOR PLAN (GROUND LEVEL)  
 1/4" = 1'-0"





## 4.0 EXISTING SITE CONDITIONS

### 4.1 Freeway Access to Region

The Project area is served by two major freeways:

- **The SR-134 (Ventura) Freeway** is an east/west freeway that extends between the Interstate-210 (Foothill) Freeway in Pasadena to the US-101 (Hollywood) Freeway in North Hollywood. It is intersected by both the north/south oriented Interstate 5 (Golden State) Freeway and the SR-2 (Glendale) Freeway. The segment of the SR-134 Freeway in the Glendale area consists of four mixed-flow travel lanes and one high occupancy vehicle (HOV) lane in each direction. On/Off Ramps are provided at the following locations: San Fernando Road, Pacific Avenue, Central Avenue/Brand Avenue, and Glendale Avenue/Monterey Road. Access to Brand Boulevard from the eastbound SR-134 Freeway is provided through Sanchez Drive (Frontage Road) while westbound freeway access from Brand Boulevard is provided by Goode Avenue (Frontage Road).
- **The I-5 (Golden State) Freeway** is a north/south freeway that extends between northern and southern California. The segment of the I-5 (Golden State) Freeway that is within the City of Glendale region primarily consists of 5 mixed-flow travel lanes in each direction. Access to and from the region by the I-5 (Golden State) Freeway is provided through its north and south on/off-ramps at the Colorado Street Freeway Extension and its interchange with the SR-134 (Ventura) Freeway.

### 4.2 Surrounding Roadway Systems

The Project area is served by the following surrounding roadways:

- **W. Broadway** is an east-west minor arterial that borders the project site on the south. In the study area, W. Broadway consists of two travel lanes in each direction with adjacent parking on both sides.
- **Wilson Avenue** is an east-west minor arterial that is just north of the project site. In the study area, Wilson Avenue consists of one travel lane in each direction with adjacent parking on both sides.
- **Colorado Boulevard** is an east-west major arterial located south of the project site. In the study area, Colorado Boulevard consists of two travel lanes in each direction with a two-way left turn pocket between Kenilworth Avenue and Pacific Avenue.

- **San Fernando Road** is a north-south major arterial located west of the project site. In the study area, San Fernando Road consists of two travel lanes in each direction with parking available on the east side.
- **Pacific Avenue** is a north-south minor arterial located just east of the project site. In the study area, Pacific Avenue consists of two travel lanes in each direction and a two-way left turn pocket.
- **Kenilworth Avenue** is a north-south community collector located just west of the project site. In the study area, Kenilworth Avenue consists of one lane in each direction with adjacent parking on both sides.
- **Central Avenue** is a north-south major arterial located east of the project site. In the study area, Central Avenue consists of three travel lanes in each direction and a two-way left turn pocket.

### 4.3 Transit Service

The City of Glendale, and specifically the project area, is well served with regional and local public transit as well as commuter and passenger rail services. The Los Angeles County Metropolitan Transportation Authority (MTA) and the City of Glendale Bee Line Shuttle provide access to and from the project vicinity. The MTA operates within the study area along Brand Boulevard, Central Avenue, Broadway, and Doran Street while the Bee Line Shuttle operates primarily along Brand Boulevard and Central Avenue. Please refer to **Figures 4 & 5** and **Table 1** for an illustration of the existing public transit routes and summary of existing transit counts respectively.

Table 1: Summary of Existing Transit Routes

ROUTE	ROUTE LIMITS	ROADWAY NEAR PROJECT SITE	BUSES/PEAK HOURS		
			DIRECTION	AM	PM
MTA Route 94	Downtown Los Angeles to San Fernando	San Fernando Road/Los Feliz Road	NB	6	6
			SB	6	7
MTA Route 183	Glendale to Sherman Oaks	Brand Boulevard/ Broadway/Colorado Street/Pacific Avenue	EB	2	2
			WB	2	2
MTA Route 201	Los Angeles to Glendale	Broadway/Pacific Avenue/San Fernando Road	NB	2	2
			SB	3	2
MTA Route 603	Los Angeles to Glendale	Central Avenue/Colorado Street/Pacific Avenue/Broadway	NB	4	8
			SB	4	8
MTA Route 794	Los Angeles to Sylmar	W. Broadway/San Fernando Road	NB	6	5
			SB	6	5
Glendale Beeline Route 5	Pacific Community Center & Park to Hoover High School	Pacific Avenue/Colorado Street	NB	8	4
			SB	6	6
Glendale Beeline Route 6	Pacific Community Center & Park to Glendale High School	Pacific Avenue/Colorado Street	EB	6	5
			WB	6	5
Metrolink Antelope Valley Line (Glendale Station)	Lancaster to Los Angeles	San Fernando Road	NB	2	3
			SB	2	2
Metrolink Ventura County Line (Glendale Station)	Oxnard to Los Angeles	San Fernando Road	NW	7	5
			SE	7	5
Metrolink Bob Hope Line (Glendale Station)	Burbank to Los Angeles	San Fernando Road	NB	6	5
			SB	4	4



**Figure 4**  
Existing Public Transit Routes (MTA)

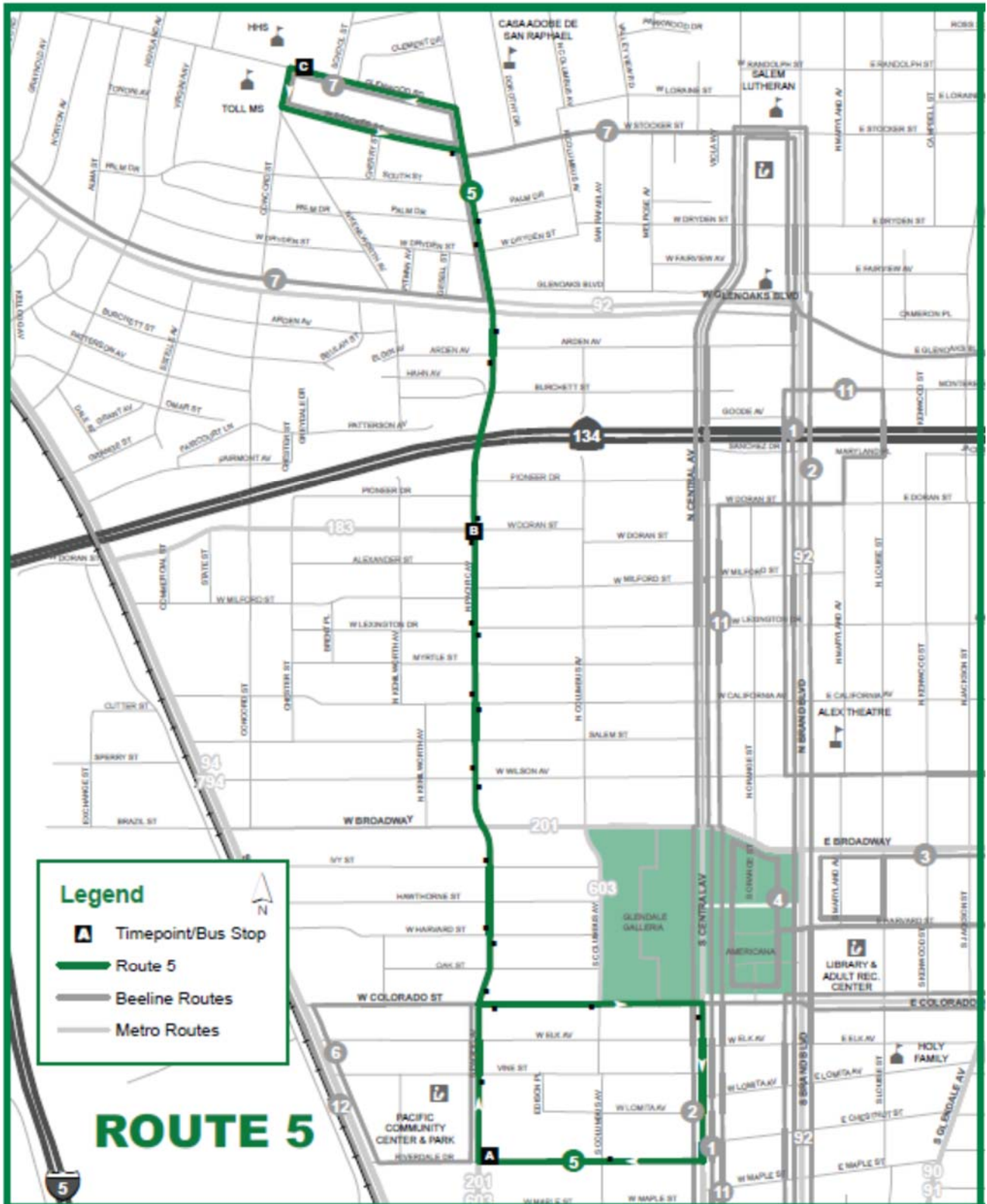


Figure 5: Glendale Beeline Transit

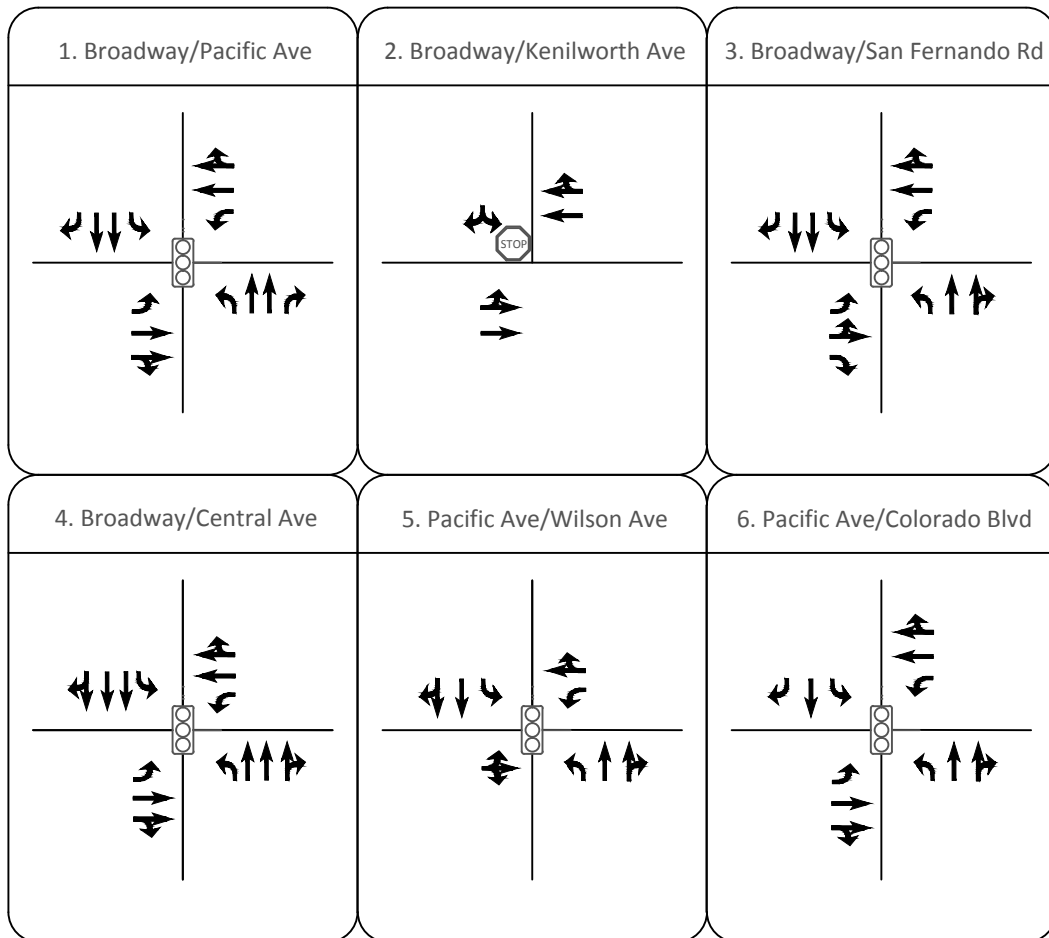
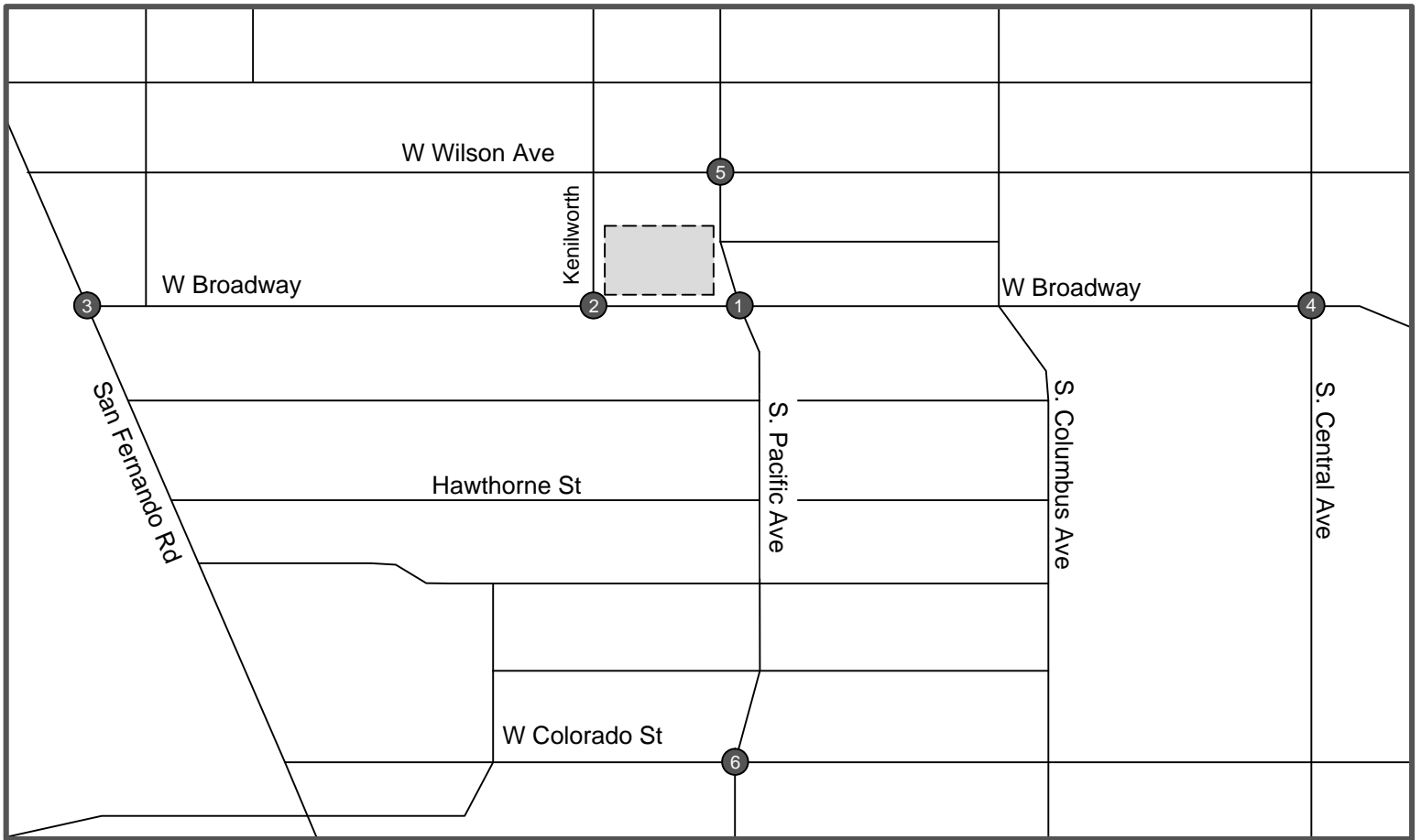
## 5.0 EXISTING TRAFFIC VOLUMES


Traffic counts were obtained for vehicular turning movements at the following intersections:

- (1) Broadway and Pacific Avenue
- (2) Broadway and Kenilworth Avenue (one-way stop controlled)
- (3) Broadway and San Fernando Drive
- (4) Broadway and Central Avenue
- (5) Pacific Avenue and Wilson Avenue
- (6) Pacific Avenue and Colorado Boulevard

The traffic counts were performed on March 20, 2014 during typical commuter hours to determine peak traffic counts. Due to construction at the intersection of Broadway and San Fernando Drive, traffic counts conducted on February 27, 2009 were obtained from the City. In order to take into account area-wide growth at this intersection since 2009, a 1% per year growth rate was added for the purpose of this study's analysis. Further, traffic counts for the intersection of Pacific Avenue and Colorado Boulevard were obtained from a recently City approved traffic study: 507-525 W. Colorado Project. However, given the location of this intersection to recently constructed projects, and in order to provide a conservative analysis with regards to these projects since the counts were taken in 2013, a 2% adjustment has been applied. The findings show that typical peak traffic for morning and afternoon hours occur during the hours of 7:00 - 9:00 A.M. and 4:00 – 6:00 P.M. respectively.

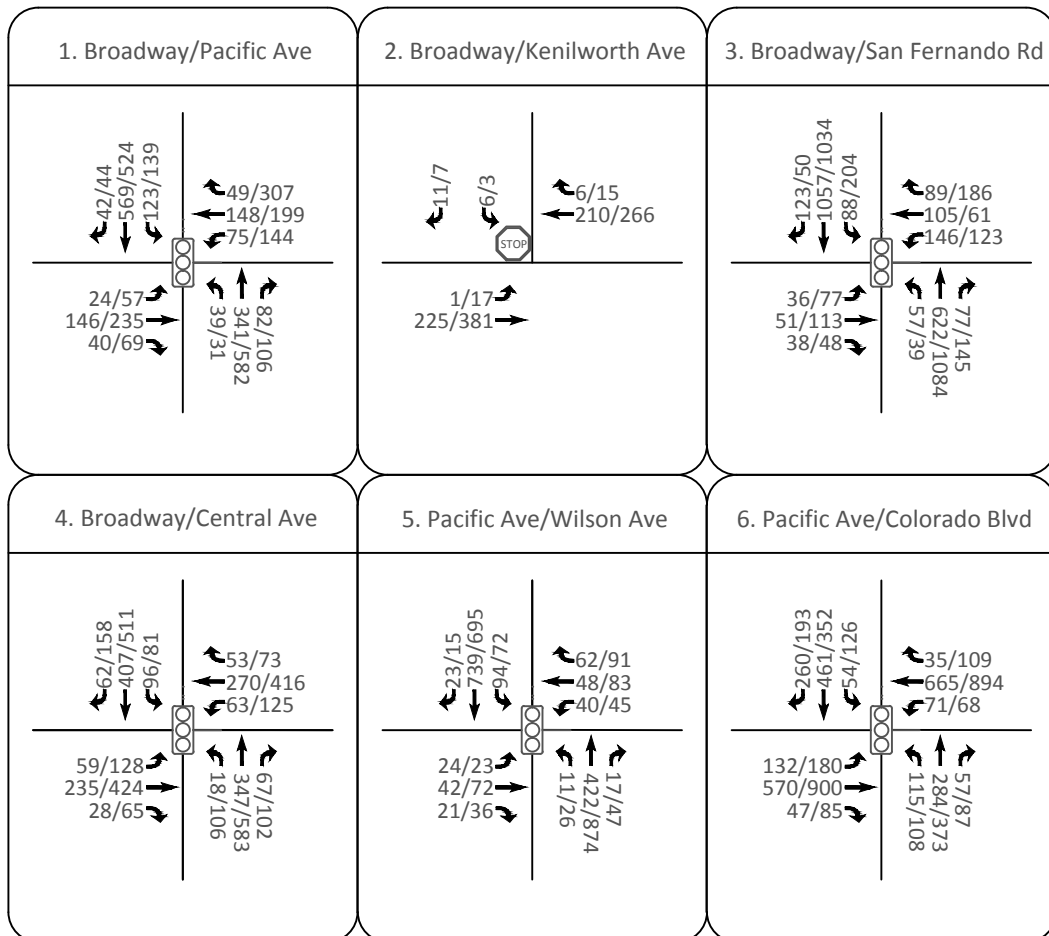
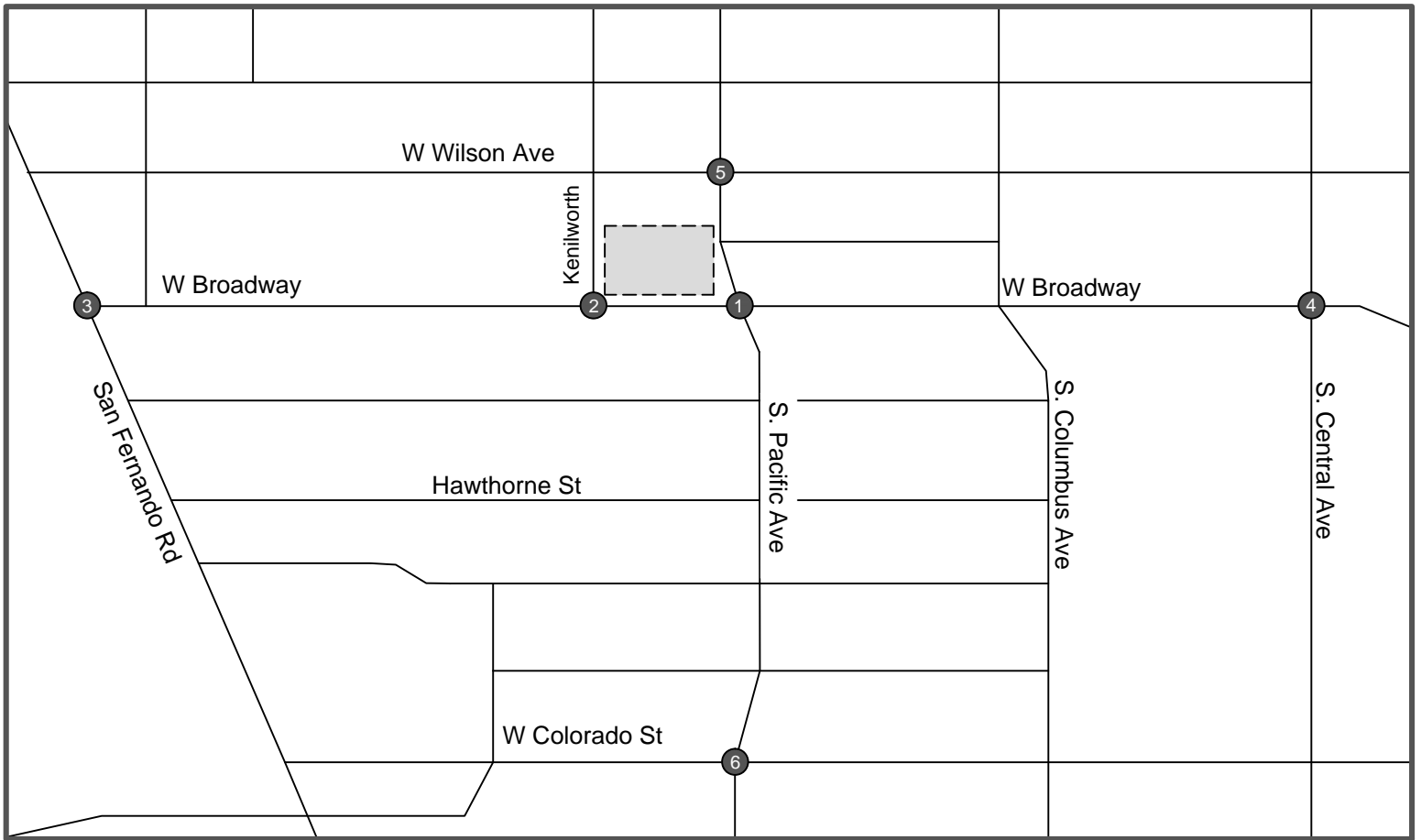
Please refer to **Appendix A** for the manual traffic counts. Please also refer to **Figure 6** for a depiction of the lane configurations for the study intersections and **Figure 7** for an illustration of the AM and PM peak hour turning movement counts for the study intersections.



 = Project Site



Not to Scale



XXX/XXX = AM/PM Peak Hour Turning Movements

= Project Site



Not to Scale



## 6.0 CONGESTION MANAGEMENT PROGRAM (CMP) TRAFFIC IMPACT

Proposition 111, enacted in June 1990 by California voters, established a nine cent per gallon gas tax for the purpose of funding transportation related improvements statewide. In order to be eligible for the revenues created by the proposition, counties in California must adopt a Congestion Management Program. The purpose of the CMP is to ensure that a more collaborative approach is taken towards addressing traffic related impacts due to local growth. The proposed project follows the guidelines as set forth by the *2010 Congestion Management Program for Los Angeles County*. This traffic impact study analyzed CMP concerns related to Intersections, Freeways, and Transit.

### 6.1 Intersections

As set forth by the *2010 Congestion Management Program for Los Angeles County*, intersections designated to as CMP intersections must be identified and examined if the proposed project will add 50 or more trips during the A.M. or P.M. peak periods. There are no CMP intersection monitoring locations in the project study area. Therefore, no further review of potential impacts at any further intersections is needed to be in compliance with the *2010 Congestion Management Program for Los Angeles County*.

### 6.2 Freeways

The following CMP freeway monitoring locations have been identified in the project vicinity:

<u>CMP Station</u>	<u>Segment</u>
No. 1005	I-5 Freeway south of Colorado Boulevard Extension
No. 1055	SR-134 Freeway east of Central Avenue

The CMP guidelines, according to the *2010 Congestion Management Program for Los Angeles County*, require that freeway monitoring stations be examined if the proposed project will add 150 or more trips during either the A.M. or P.M. weekday peak periods.

The Broadway Mixed-Use Project generates a total of 75 AM and 93 PM peak hour trips respectively which is less than the 150 trips threshold required by the *2010 Congestion Management Program for Los Angeles County*. As a result, no freeway impact analysis is needed.

### 6.3 Transit

Transit service is provided in the vicinity of the proposed Brand Mixed-Use Campus. Therefore, as required by the *2010 Congestion Management Program for Los Angeles County*, a review has been made of the CMP transit service.

The CMP provides adjusted values to be used to evaluate the calculated project trip generation. The transit adjustment is as follows:

Person Trips = 1.4 times vehicle trips

Transit Trips = 3.5% (.035) of total person trips

Therefore, according to the Congestion Management Program guidelines, the proposed project is forecast to generate 4 transit trips during the A.M. peak hour and 5 transit trips during the P.M. Peak hour. Over a 24 hour period, the proposed project is forecast to generate 44 transit trips. The calculations are as follows:

A.M. Peak Hour = 75 Vehicle Trips x 1.4 x 0.035 = 4 Transit Trips

P.M. Peak Hour = 93 Vehicle Trips x 1.4 x 0.035 = 5 Transit Trips

Daily (24 hour period) = 902 Vehicle Trips x 1.4 x 0.035 = 44 Transit Trips

It is expected that the current described transit system can adequately provide transit services based on the number of generated trips above. Therefore no transit related impacts are expected to occur as a result of the proposed project.

## 7.0 PROJECT TRIP GENERATION

The project consists of the construction of approximately 180 residential units (Studio, 1 bedroom, and 2 bedroom), 14,200 Sq. Ft. Retail and a 4,000 Sq. Ft Restaurant. The proposed project would include the demolition and removal of the 25,302 square foot single-story retail building (Office Depot), the associated parking lot, and the apartment building and garage on the western edge of the property. The purpose of this section is to document the proposed project trip generation and resulting traffic study area to be evaluated in the forthcoming traffic analyses.

The Project is located close to local shopping centers such as the Glendale Galleria and the Americana. Alternative transportation modes are available and in walking distance from the Project site. The MTA and the City of Glendale presently operate bus routes along Broadway and Pacific Avenue. All routes serving the Project connect to additional routes and stop at the Glendale Transportation Center (GTC), which provides access to the Greater Los Angeles metropolitan region via bus and commuter trains. The GTC also provides statewide access via Amtrak long-distance trains.

### 7.2 Project Trip Generation Methodology

Trip rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual 9<sup>th</sup> Edition* were used in this analysis.

The trip generation calculations are consistent with recently approved Traffic Impact Studies. In particular the following reductions for transit and walk-in/internal capture are the same as those used on the recently approved Glendale Link Project located on the corner of San Fernando Road and Central Avenue. Please note, in order to be conservative, no internal capture reduction was applied to the restaurant trips.

- A 10% reduction was applied to the residential units of the project based specifically on the fact that the location of the project in Glendale provides convenient local/regional transit service. In particular, the project site is located in close proximity to transit routes on Broadway and Pacific. Further, the project is located close to local shopping centers such as the Americana and Glendale Galleria which will further reduce vehicle trips to and from the project site.
- A 10% walk-in/internal capture reduction was applied to the Retail component of the project as the tenants of this component of the development are expected to attract a significant portion of its customers from either within the project site itself or the surrounding commercial and residential areas.

Table 2: Project Trip Generation

Land Use (ITE Code)	Size	Units	AM Peak Hour Trips				PM Peak Hour Trips				Daily Trips	
			Rate	Total	In	Out	Rate	Total	In	Out	Rate	Total
<b>New Project Land Use Added</b>												
Residential Apartments (220)	180	du	0.51	92	20% 18	80% 74	0.62	112	65% 73	35% 39	6.65	1197
10% Transit Reduction <sup>1</sup>				-9	-2	-7	-	-11	-7	-4	-	-120
Retail (820)	14.2	tsf	0.96	14	62% 9	38% 5	3.71	53	48% 25	52% 28	42.7	606
10% Less Walk-In/Internal Capture Reduction <sup>2</sup>				-1	-1	0	-	-5	-2	-3	-	-61
Restaurant (931)	4	tsf	0.81	3	48% 1	52% 2	7.49	30	67% 20	33% 10	89.95	360
<b>Subtotal</b>				99	25	74	-	179	109	70	-	1982
<b>Existing Land Use Removed</b>												
Office Supply Superstore (867) <sup>3</sup>	25.3	tsf	0.96	-24	48% -12	52% -12	3.4	-86	53% -46	47% -40	42.7	-1080
<b>Subtotal</b>				-24	-12	-12	-	-86	-46	-40	-	-1080
<b>Net Trip Generation</b>				75	13	62	-	93	63	30		902

Source: ITE Trip Generation Manual, 9th Edition

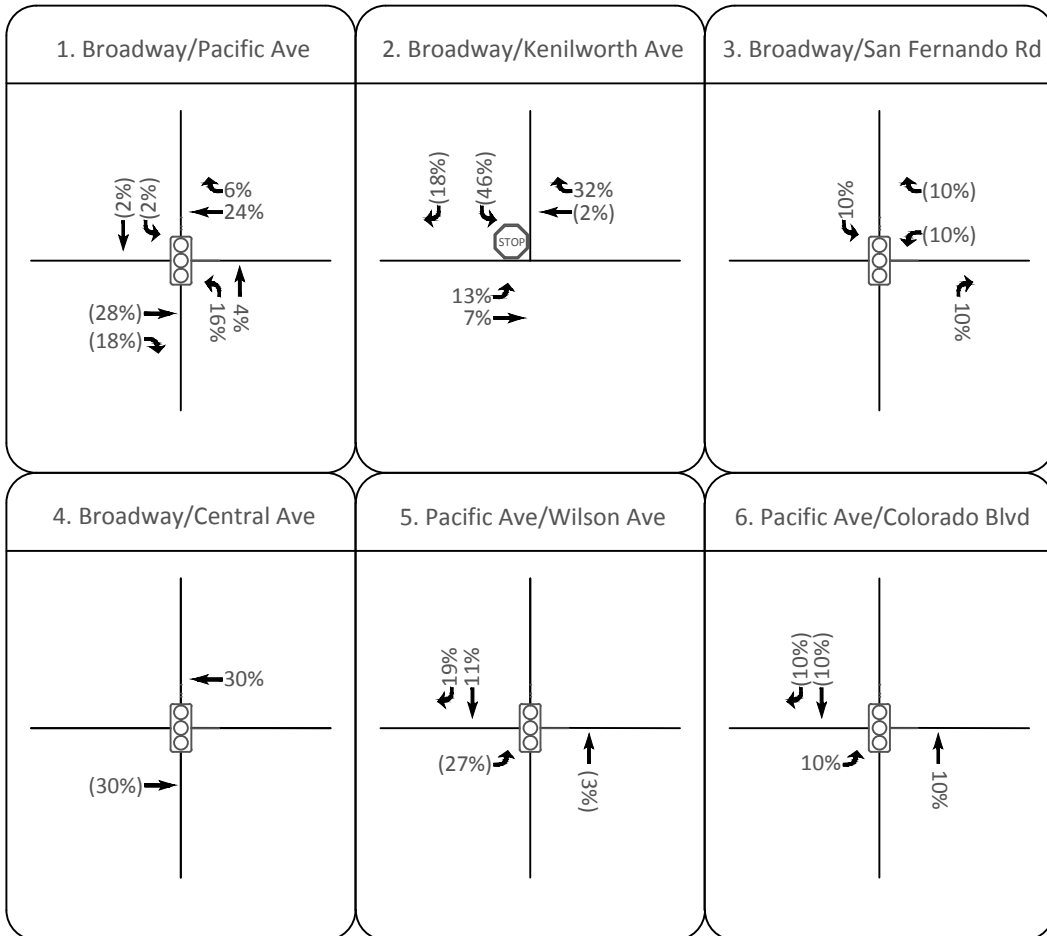
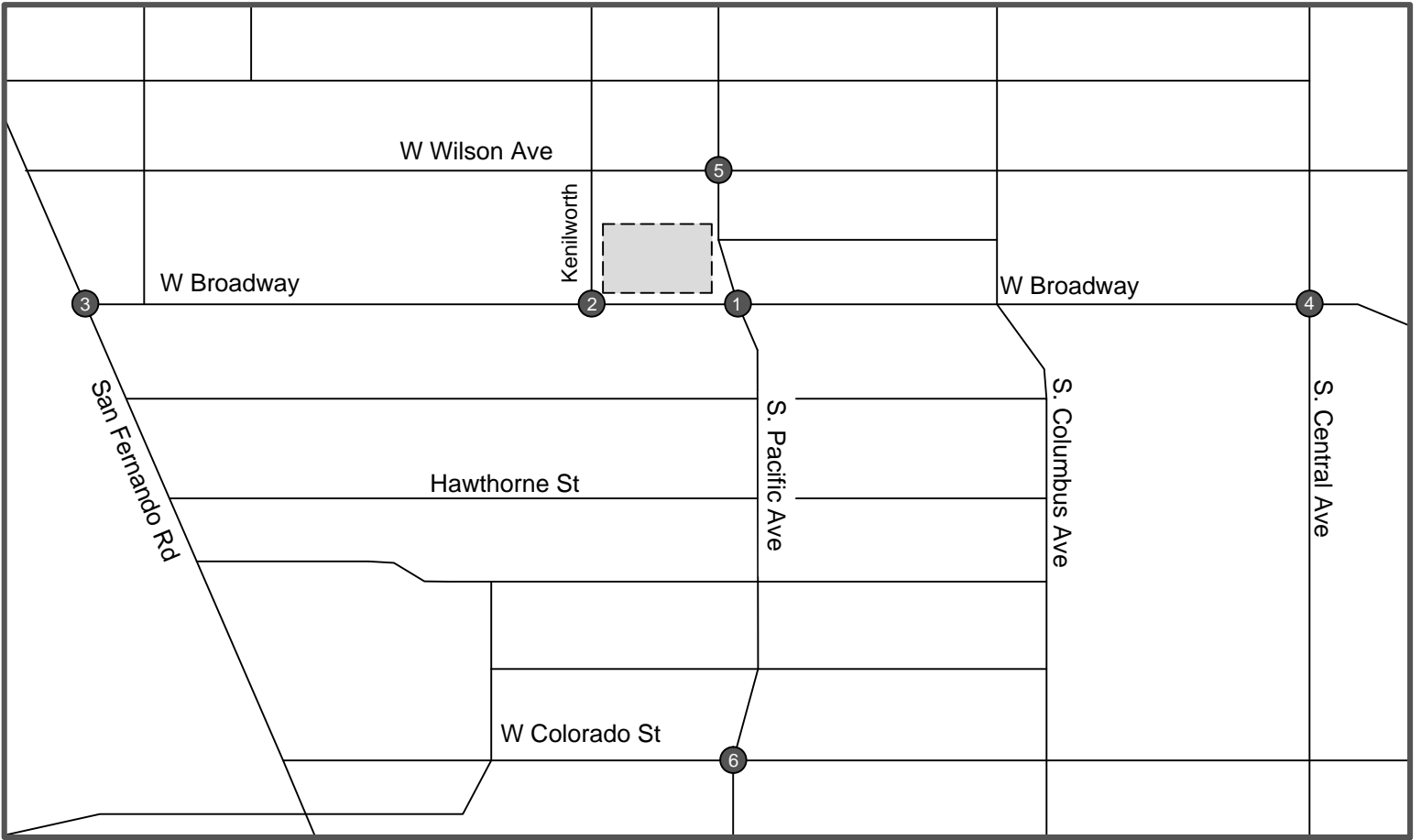
1. Transit reduction applied to account for the proximity of the project to conveniently located transit routes and walkability to nearby land uses.
2. A Walk-In/Internal Capture Rate was applied to account for walk-in patrons and the mixed-use characteristic of the development
3. ITE Land Use Code 820 (Retail) used for AM Peak Hour Trip Rate due to lack of data in "Trip Generation Manual"

As shown in **Table 2**, the proposed project is forecast to result in 75 net new a.m. peak hour trips, 91 net new p.m. peak hour trips, and 885 net new daily trips.

## 7.4 Project Trip Distribution & Assignment

Trip distribution assumptions are used to determine the origin and destination of new vehicle trips associated with the project. The geographic distribution of project trips is based on recently completed traffic studies (provided by the City of Glendale) in the area, functional classification of streets in the vicinity, the magnitude of traffic volumes, as well as local knowledge of the roadway network. The Proposed Project Trip Distribution in the project vicinity for the AM and PM Peaks are shown in **Figures 8 & 9** respectively. Based on the project trip generation shown in **Table 2** and the proposed trip distribution patterns shown in **Figures 8 & 9**, a proposed study area for the traffic analysis was derived. The proposed study area would include 6 intersections in the vicinity of the project site and is shown in **Figure 10**. The location and the number of the intersections to be analyzed was reviewed and approved by the Department of Public Works Traffic and Transportation division.

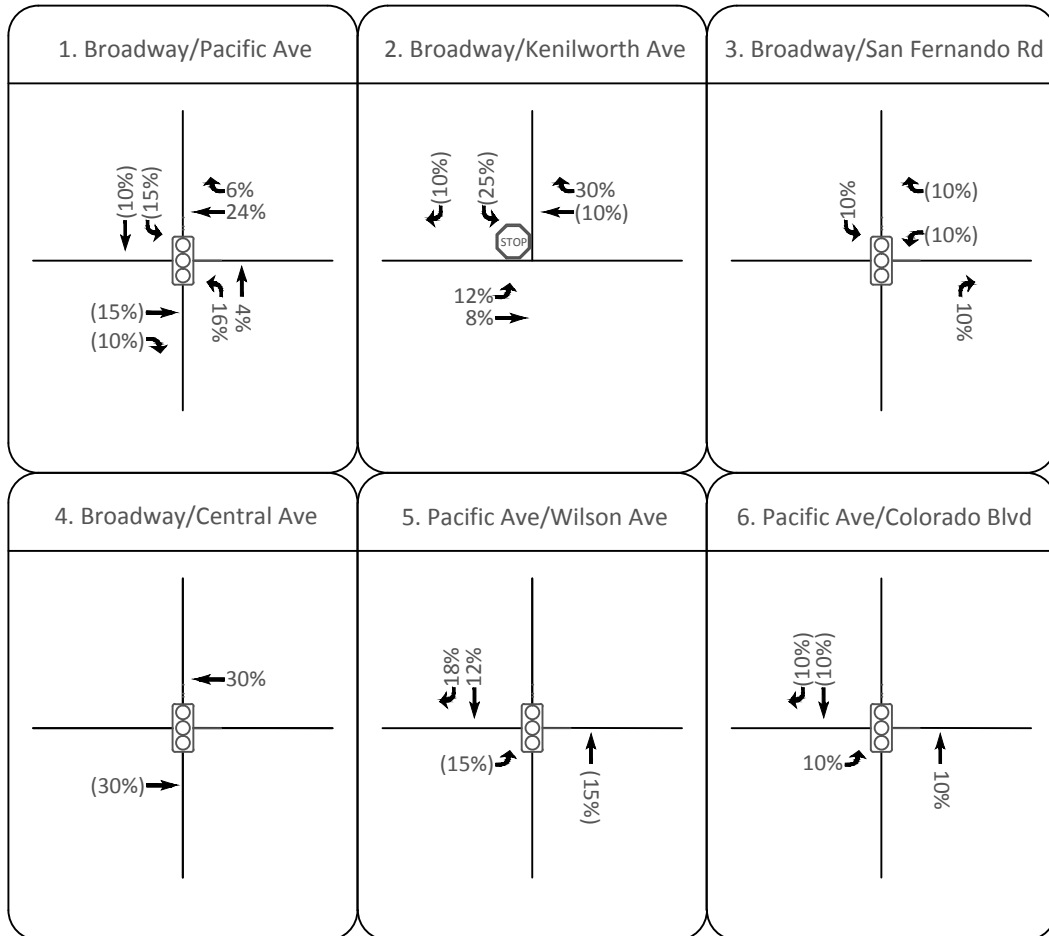
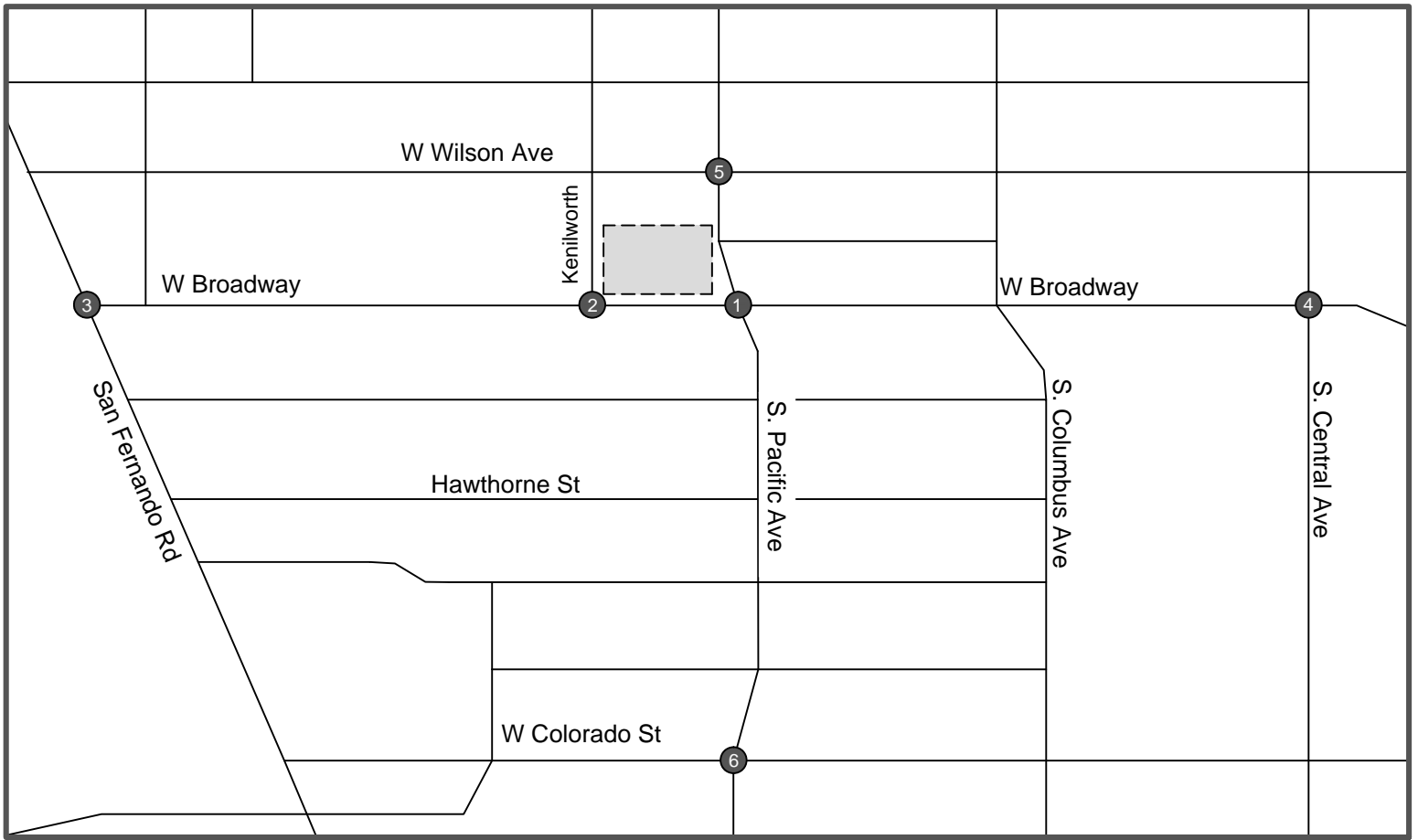
Additionally, **Figures 11 & 12** illustrate the Trip Distribution/Trip Assignments at the Project Driveways and **Figure 13** illustrates the Trip Assignment on the Surrounding Roadway System.



XX (XX) = Inbound (Outbound) Distribution  
 [Dashed Box] = Project Site



Not to Scale

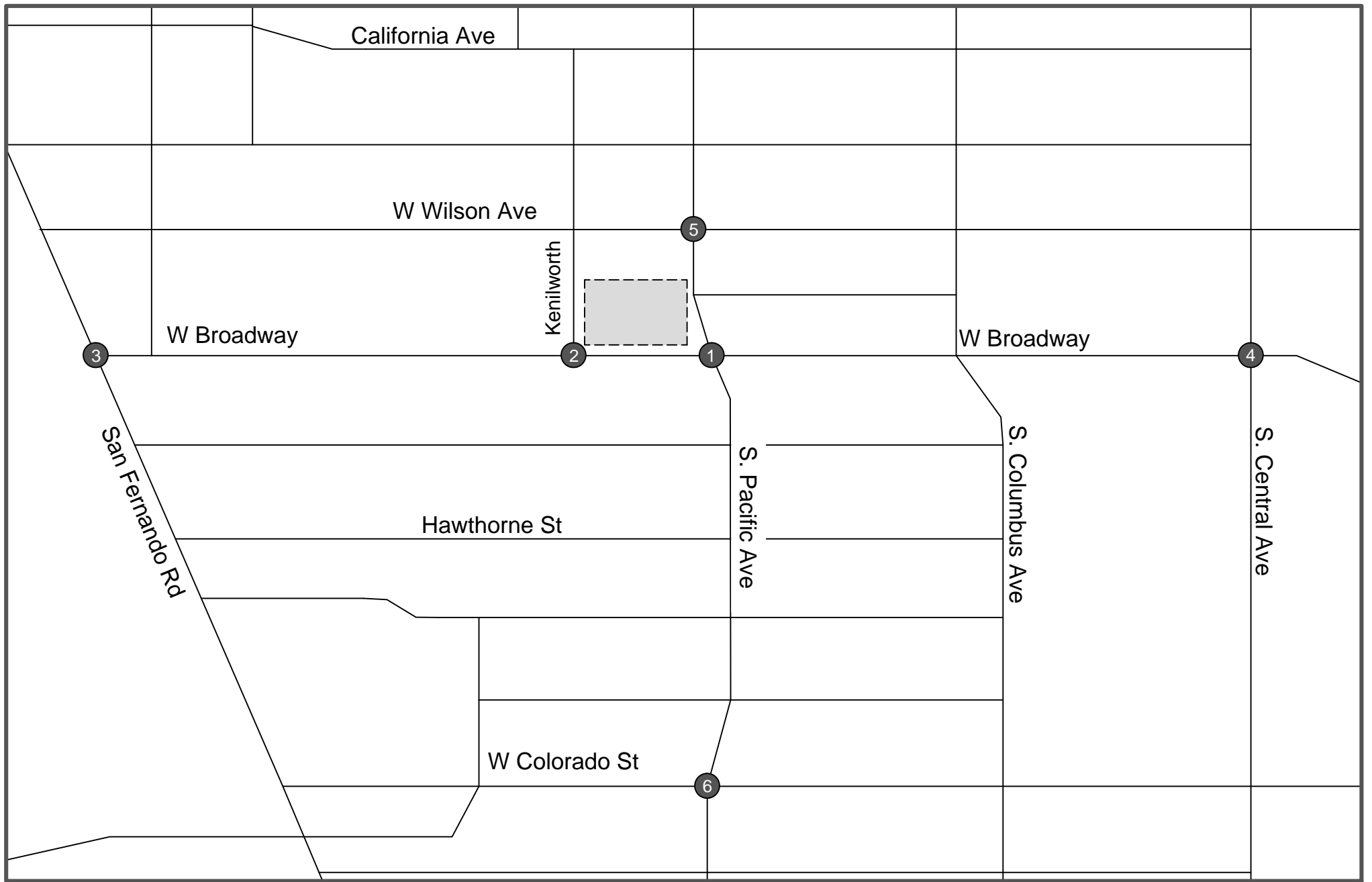


XX (XX) = Inbound (Outbound) Distribution


▭ = Project Site



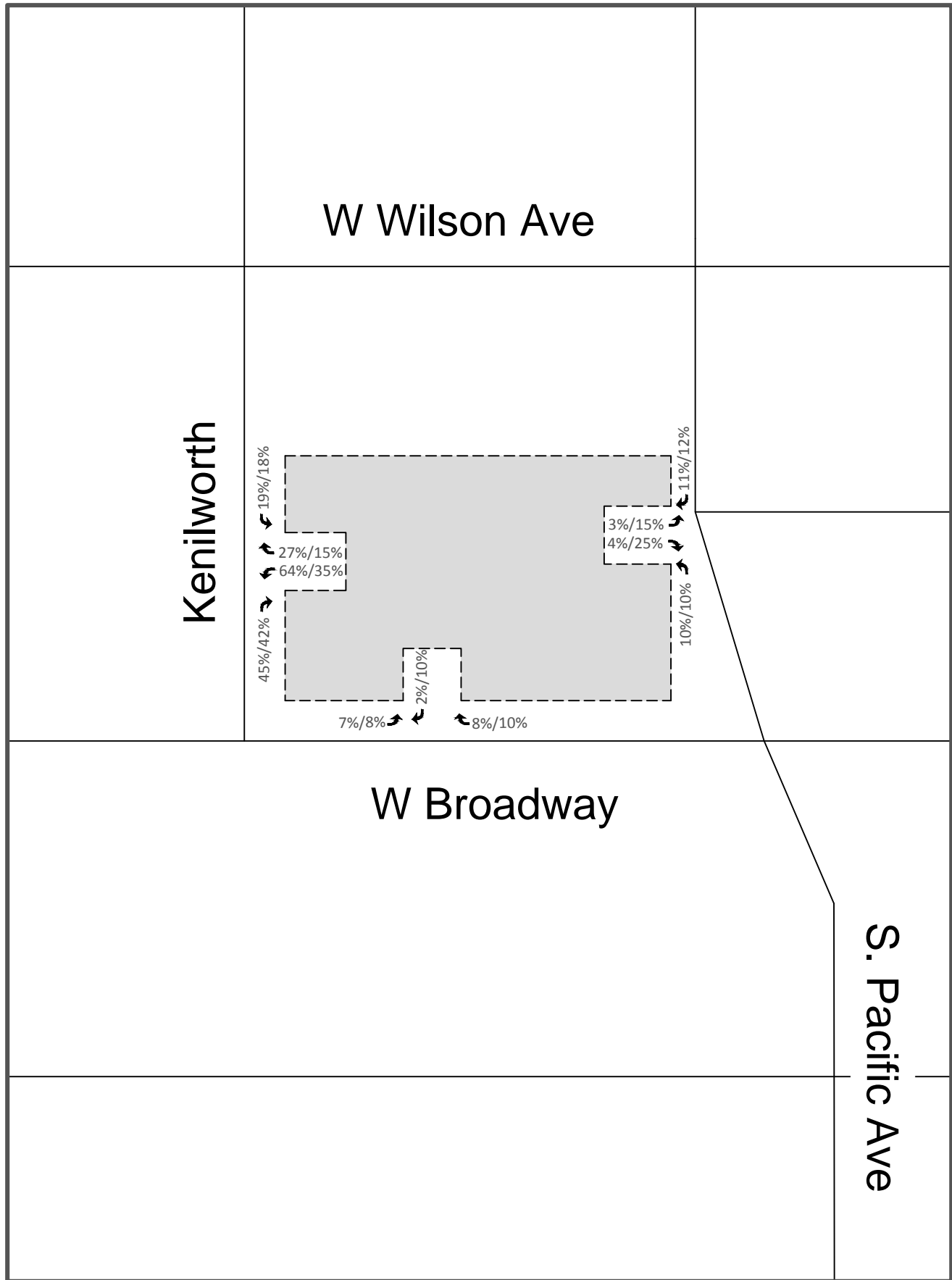
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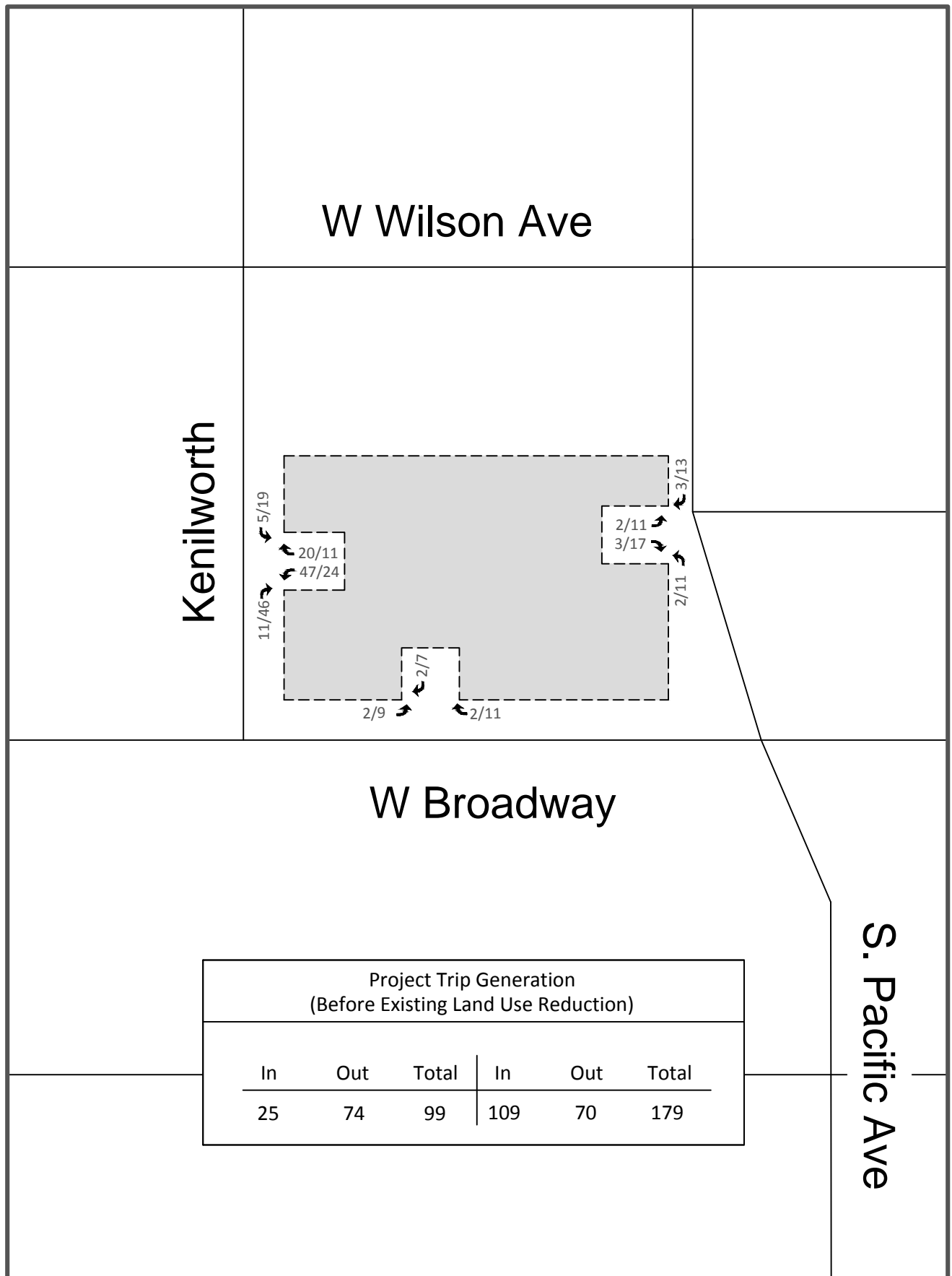


XX/XX = AM/PM Peak Distribution %

■ = Project Site



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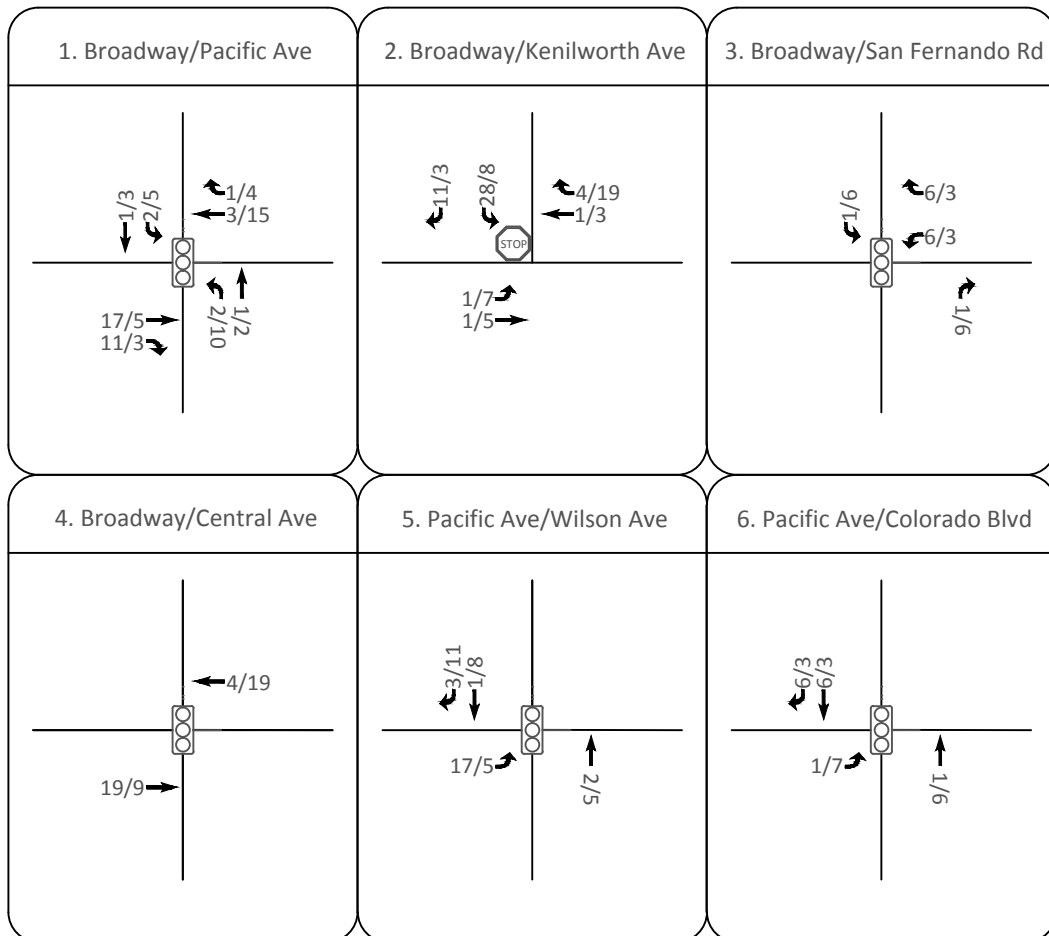
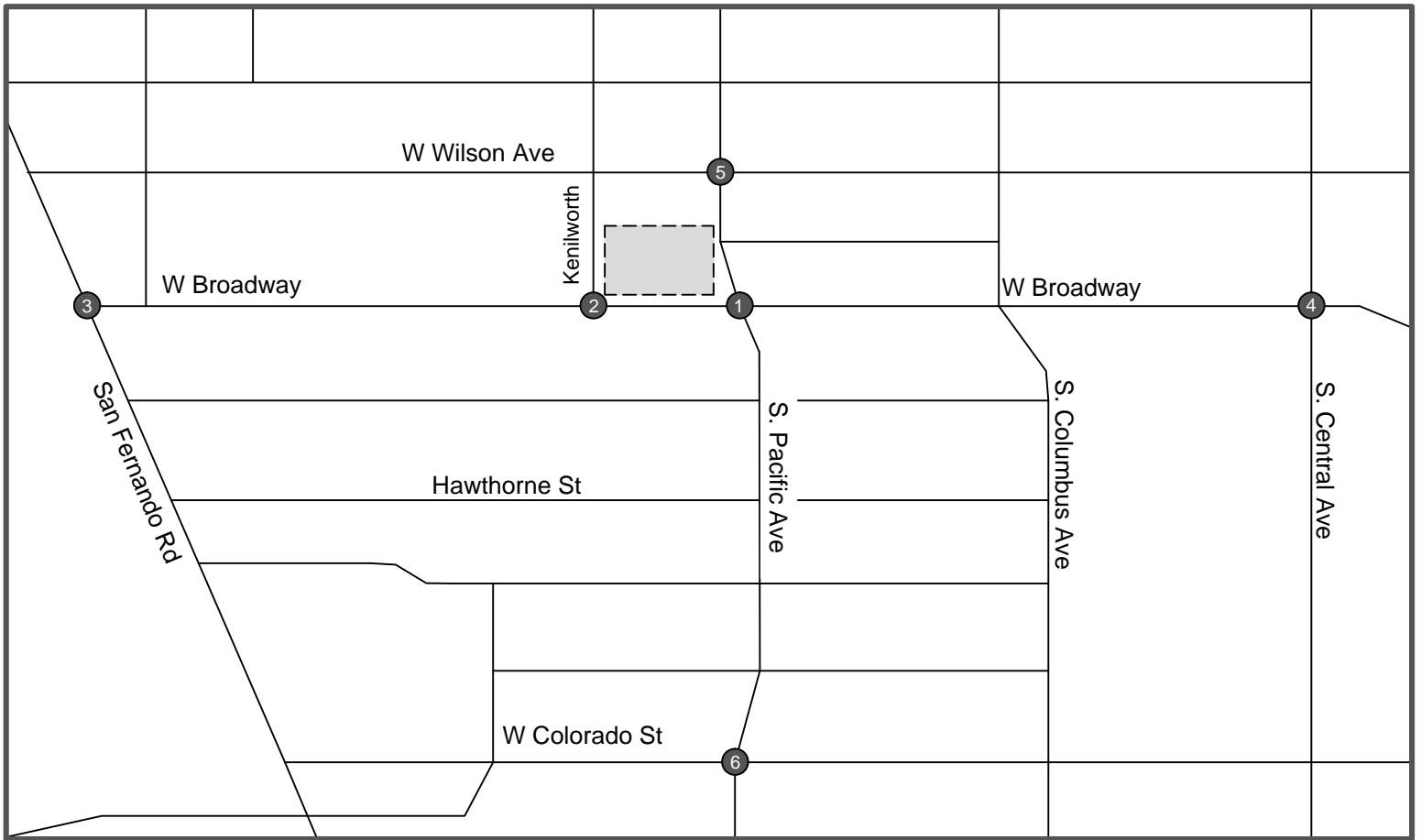


XXX/XXX = AM/PM Peak Hour Turning Movements

■ = Project Site



Not to Scale



XXX/XXX = AM/PM Peak Hour Turning Movements

= Project Site



Not to Scale

## 8.0 RELATED PROJECTS & AMBIENT GROWTH

Future peak hour traffic projections for the study intersections have been evaluated to include growth due to (1) related projects in development and (2) ambient traffic growth.

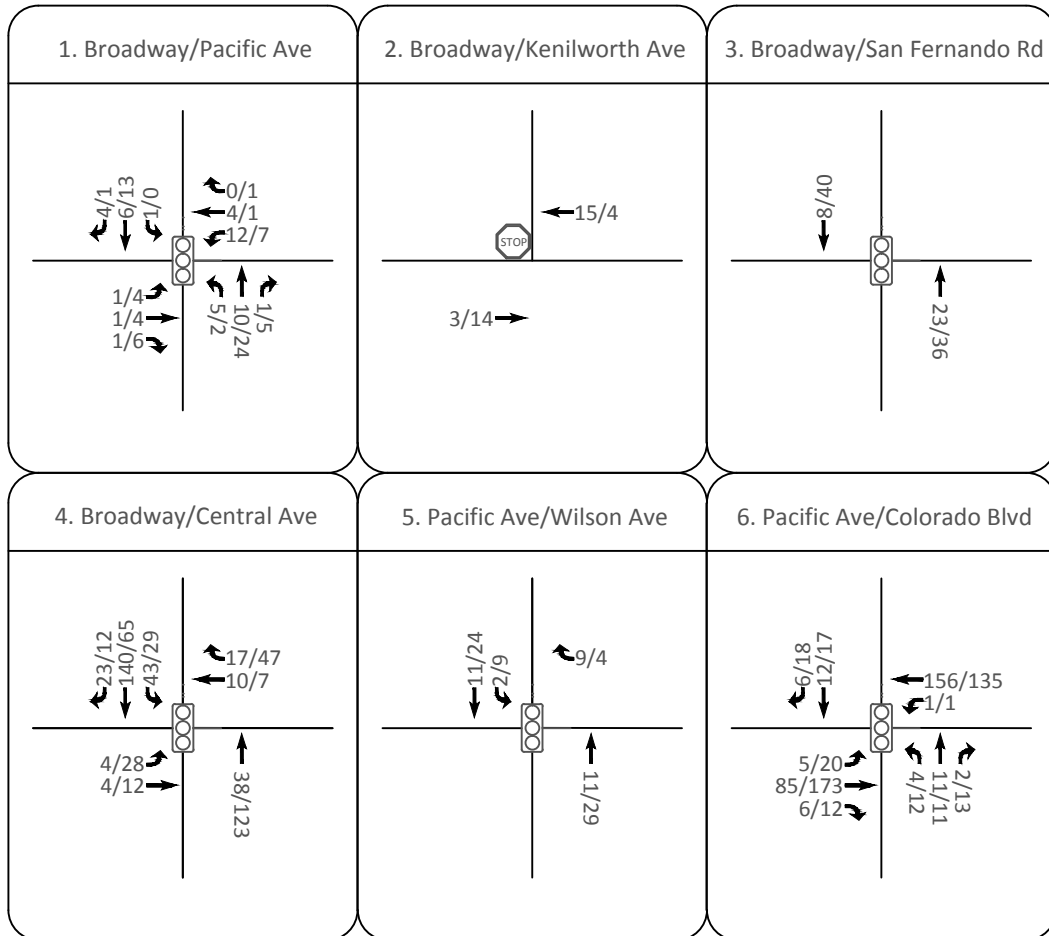
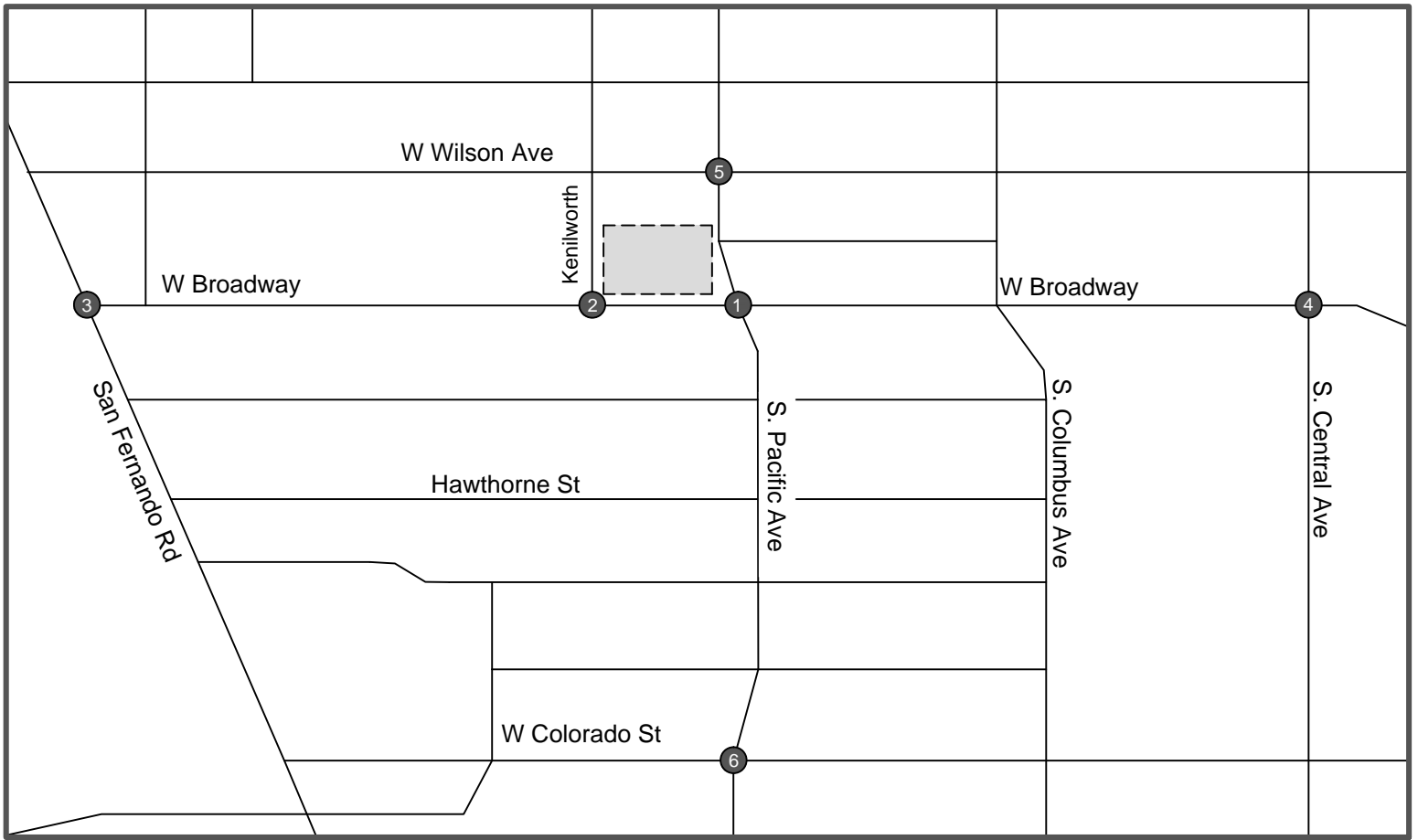
### 8.1 Trip Generation for Related Projects

To understand the relative traffic impacts for the projected year of completion (2016), this traffic study analyzed potential traffic trips due to the development of related projects in the area. A list of related projects was provided by the City of Glendale Planning Department and their associated trip volumes were calculated using the ITE Trip Generation Manual, 9<sup>th</sup> edition. A list of these projects, with their corresponding traffic volumes at the study intersections, can be viewed in **Table 3** and **Figure 14**. Moreover, a map of the locations of these related projects, with respect to the Broadway Mixed-Use Project, is shown in **Figure 15**.

Only those projects with a potentially significant impact, and therefore a required traffic study, were included in the related projects list. Any other developing projects, that were considered small in nature, were encompassed in area wide ambient growth.

### 8.2 Ambient Traffic Growth

To account for the future traffic growth not included in the above related projects list (i.e. continuing development and intensification of existing development), the existing traffic volumes were increased by an ambient growth rate of 1% per year to the anticipated year of completion (2016). These values were then added to the potential traffic generated by the aforementioned related projects to accurately forecast future traffic conditions.



XXX/XXX = AM/PM Peak Hour Turning Movements

= Project Site



Not to Scale

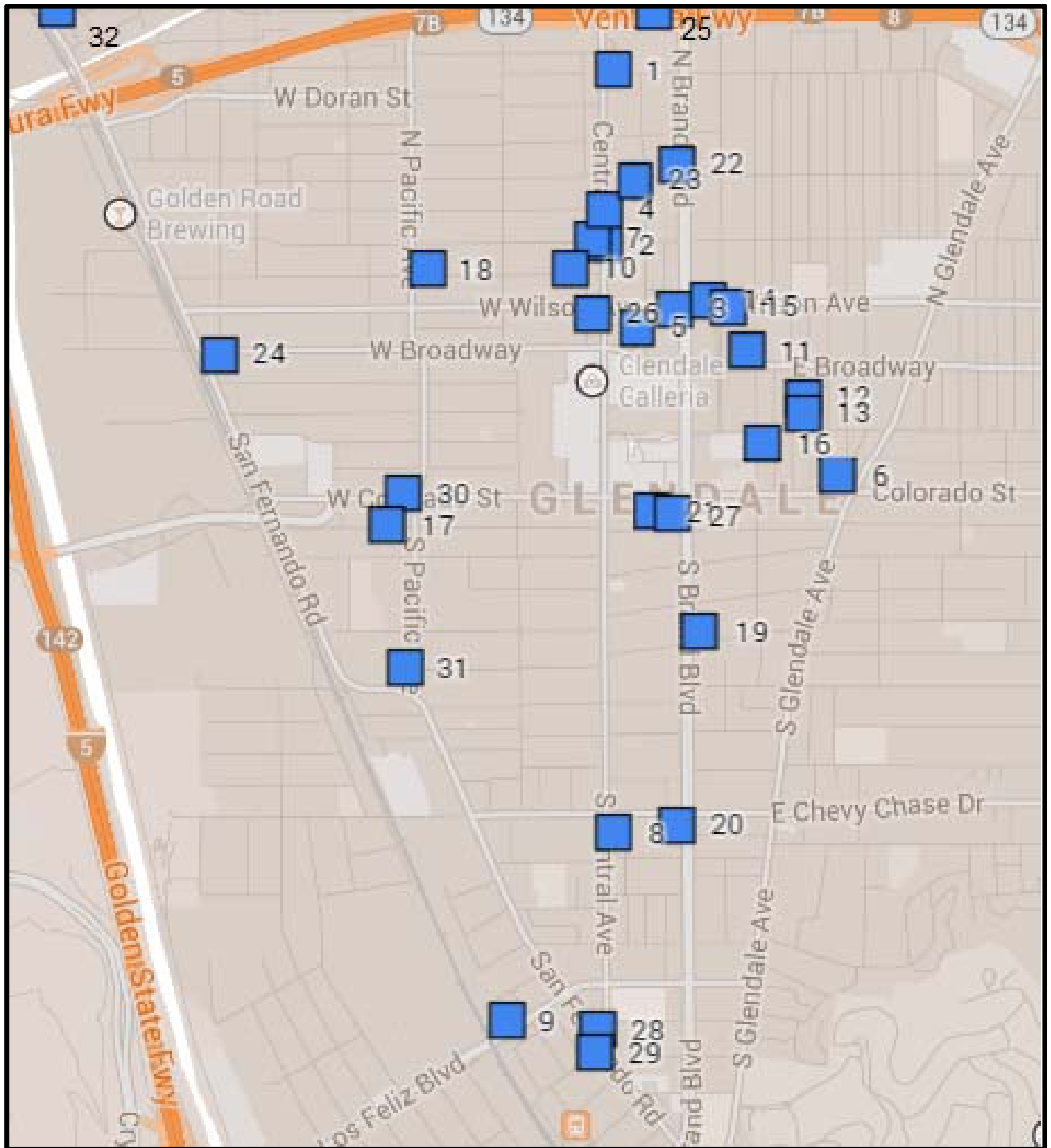


FIGURE 17: MAP OF RELATED PROEJCTS

**TABLE : RELATED PROJECT TRIP GENERATION**

Project #	Project Name	Location	Land Use	Size	Unit	Daily Trips	Weekday Peak Hour					
							Morning			Evening		
							Inbound	Outbound	Total	Inbound	Outbound	Total
1	Verdugo Gardens	610 N. Central Ave	Multi-Family	235	DU	1563	24	96	120	95	54	146
2	Legendary Towers	300 N. Central Ave	Multi-Family	72	DU	479	7	30	37	29	16	45
			Live/Work	8	DU	53	1	3	4	3	2	5
			Commercial	1240	Sq.Ft.	53	1	0	1	2	3	5
3	Brand + Wilson	124 W. Wilson Ave	Multi-Family	235	DU	1563	24	96	120	95	51	146
			Commercial	9800	Sq.Ft.	418	6	3	9	17	19	36
4	The Lex on Orange	320-324 N. Central Ave.; 208 W. Lexington Dr.; and 317-345 N. Orange	Multi-Family	307	DU	2042	31	126	157	124	66	190
			Live/Work	3	DU	20	0	2	2	1	1	2
5	Orange + Wilson	200 W. Wilson Ave.	Multi-Family	166	DU	1104	17	67	85	67	36	103
			Live/Work	5	DU	33	1	2	3	2	1	3
			Restaurant	2649	Sq.Ft.	337	16	13	29	16	10	26
6	Jackson & Colorado	228 S. Jackson St.	Multi-Family	28	DU	186	3	11	14	11	6	17
			Office	11470	Sq.Ft.	127	16	2	18	3	14	17
7	Unnamed Project	301 N. Central Ave.	Multi-Family	84	DU	559	9	34	43	34	18	52
			Commercial	3000	Sq.Ft.	128	2	1	3	5	6	11
8	Unnamed Project	1110 S. Central Ave.	Office	4500	Sq.Ft.	50	6	1	7	1	6	7
9	Tropico Apartments	435 W. Los Feliz	Multi-Family	238	du	1583	24	97	121	96	52	148
10	Veterans Village of Glendale	327 Salem St.	Multi-Family	44	DU	293	4	18	22	18	9	27
11	Louise Gardens	111 N. Louise St.	Multi-Family	63	DU	419	6	26	32	25	14	39
12	Unnamed Project	118 S. Kenwood St.	Multi-Family	35	DU	233	4	14	18	14	8	22
13	Unnamed Project	128-132 S. Kenwood St.	Multi-Family	28	DU	186	3	11	14	11	6	17
14	Laemmle Cinema Lofts	111 E. Wilson Ave. and 215 N. Maryland Ave.	Multi-Family	42	DU	279	4	17	21	17	9	26
			Movie Theater	9690	Sq.Ft.	756	2	0	2	56	4	60
15	Hyatt Place Glendale	225 Wilson Ave.	Hotel	172	Room	1534	67	48	115	59	61	120
			Restaurant	1950	Sq.Ft.	248	12	9	21	11	8	19
16	Unnamed Project	200 S. Louise St.	Commercial Addition	3240	Sq.Ft.	138	2	1	3	6	6	12
17	Unnamed Project	525 W. Elk Ave.	Multi-Family	71	DU	472	7	29	36	29	15	44
18	Unnamed Project	463 Salem St.	Multi-Family	10	DU	67	1	4	5	4	2	6
19	Mercedes-Benz Dealership	622 S. Brand Ave.	Car Dealership	41000	Sq.Ft.	1324	59	20	79	43	64	107
20	Star Ford Dealership	1101 S. Brand Blvd.	Car Dealership	47977	Sq.Ft.	1550	69	23	92	50	76	126
21	Unnamed Project	124 W. Colorado St.	Multi-Family	50	DU	333	5	21	26	20	11	31
22	Brand Mixed-Use	411 N. Brand Blvd.	Multi-Family	229	DU	1419	10	92	102	90	38	128
			Restaurant	5000	Sq.Ft.							
23	Citi Bank Site	210 W. Lexington and 418 N. Central Ave	Multi-Family	540	DU	1510	-87	142	55	91	-55	36
			Drive-In Bank	4200	Sq.Ft.							
24	Unnamed Project	604-610 W. Broadway	Office	12802	Sq.Ft.	141	18	2	20	3	16	19
			Commercial	1620	Sq.Ft.	69	1	1	2	3	3	6
25	Central + Wilson	130 N. Central Ave	Multi-family	153	DU	1017	16	62	78	62	33	95
			Commercial	4900	Sq.Ft.	209	2	2	5	8	10	18
26	Unnamed Project	125 N Central Avenue	Multi-Family	164	DU	1,608	17	80	97	88	42	130
			Commercial Pharmacy	14,600	Sq.Ft.							
27	Hampton Inn & Suites	315 S. Brand Boulevard	Hotel	94	rooms	768	30	20	50	29	27	56
28	Glendale Triangle Project	3900 San Fernando Rd	Multi-Family	287	DU	1909	29	117	146	116	62	178
			Commercial	37,000	Sq.Ft.	1580	17	18	36	60	77	137
29	The Link	3901-3915 San Fernando Rd	Multi-family	142	DU	944	14	58	72	57	31	88
			Commercial	11,600	Sq.Ft.	495	5	6	11	19	24	43
			Studio	5,000	Sq.Ft.	55	7	1	8	1	6	7
30	CCTAN/Colorado Mixed-Use	507-525 W. Colorado St	Multi-family	90	DU	599	9	37	46	36	20	56
			Medical Office	18,000	Sq.Ft.	650	34	9	43	18	46	64
			Commercial	1,000	Sq.Ft.	43	0	0	1	2	2	4
31	Unnamed Project	619 S. Pacific	Multi-family	27	DU	180	3	11	14	11	6	17
32	Unnamed Project	1407 Glenoaks Blvd	Multi-Family	76	DU	454	7	28	35	28	14	42
			Retail	12900	Sq.Ft.	496	6	5	11	19	24	43

## 9.0 METHOD OF TRAFFIC IMPACT ANALYSIS

### 9.1 Signalized Intersections

For signalized intersections, the City of Glendale uses the Intersection Capacity Utilization (ICU) method to analyze the potential traffic related impacts created by the proposed development. This method relies on the determination of a Level of Service (LOS) at each of the study intersections by first determining their corresponding Volume-to-Capacity (v/c) ratios. The ICU method therefore essentially compares the volume of traffic against the capacity of an intersection. Please refer to **Appendix B** for the ICU calculations for the study intersections.

Level of Service varies from at best LOS A (free flow/excellent) to at worst LOS of F (stop-and-go/failure). A LOS A and F, according to the Highway Capacity Manual, correspond to a v/c ratio less than 0.600 and a v/c greater than 1.001 respectively. Please refer to **Appendix C** for a more detailed description of the various Levels of Services.

The v/c ratios are determined for the study intersection by analyzing both their A.M. and P.M. peak hours for each of the following scenarios:

- (1) Existing Traffic Condition
- (2) Existing Plus Project Traffic Condition
- (3) Future (2016) Without Project Traffic Conditions (Existing plus ambient growth & related projects)
- (4) Future (2016) With Project Traffic Conditions

To determine if the project would cause a significant increase in traffic, relative to the existing traffic system, the City of Glendale uses the following thresholds:

*Table 4: City of Glendale LOS Thresholds*

City of Glendale		
Signalized Intersection Impact Threshold Criteria		
Final v/c	Level of Service	Project-Related Increase in v/c
>0.800-.900	D	Equal to or greater than 0.020
>0.900-1.00	E	Equal to or greater than 0.020
>1.000	F	Equal to or greater than 0.020

Essentially, if a signalized intersection operates at a LOS of D or worse and has a project-related increase in its volume-to-capacity ratio of 0.020 or more, then a significant traffic impact would be caused by the project and mitigations may be needed.



## 9.2 Non-Signalized Intersection

For the non-signalized study intersection, Broadway and Kenilworth Avenue, the City uses the Highway Capacity Method (HCM). The HCM defines LOS for non-signalized intersections as a function of the average vehicle control delay. This method allows for an analysis as to whether the non-signalized intersection will be significantly impacted. More specifically, as the study intersection is a stop controlled intersection, with free flowing traffic on W. Broadway, the analysis will indicate whether the movements from southbound Kenilworth will be incur significant delays.

## 9.3 Residential Street Segment Analysis

In order to determine what impacts, if any, the project would have on the nearby neighborhood street segments, a street segment analysis was performed for the following two roadways:

1. Kenilworth Avenue (Broadway to Wilson Avenue)
2. Wilson Avenue (Kenilworth Avenue and Pacific Avenue)

The two study streets were included in this traffic study through consultation with the City of Glendale staff. Due to their proximities to the project site, in particular the access driveway on Kenilworth Avenue, the street segments were analyzed to ensure that their future conditions would not exceed their environmental capacities.

To determine whether an impact would occur, the street segments capacities were obtained through the *City of Glendale Circulation Element*. According to the document, Kenilworth Avenue and Wilson Avenue are defined as a Community Collector and Minor Arterial respectively. The Circulation Element assigns the following environmental capacities to the street segments:

1. Kenilworth Avenue (Community Collector): Up to 10,000 vehicles per day
2. Wilson Avenue (Minor Arterial): Up to 30,000 vehicles per day

Furthermore, a significant impact to the residential street segments would occur under the following scenarios:

- If the addition of the Project's Average Daily Traffic (ADT) to a residential street causes the street's environmental capacity to be exceeded
- If the street's environmental capacity is exceeded with or without the Project, an impact would only occur if the Project increases the street segment's ADT by more than 10 percent.

## 10.0 TRAFFIC IMPACT ANALYSIS FINDINGS

The following scenarios were analyzed to determine the proposed project impact at the 6 study intersections. Each individual scenario is presented and analyzed in a table form to show the Volume to Capacity ratios for the 5 signalized study intersections, delay for the un-signalized intersection, and the environmental capacity for two street segments which are associates with the corresponding figures:

- 1) Existing Traffic Condition .....**Table 5, Figure 7**
- 2) Existing Plus Project Traffic Condition .....**Table 6, Figure 16**
- 3) Future (2016) Without Project Traffic Conditions .....**Table 7, Figure 17**  
(Existing plus ambient growth & related projects)
- 4) Future (2016) With Project Traffic Conditions.....**Table 8, Figure 18**

Overall, as shown in **Tables 5-8**, there are no significant impacts at the signalized study intersections due to the addition of the project for any of the listed scenarios.

Further, the residential street segment analysis summary, shown in **Table 9**, illustrates that there is no significant impact to the residential segments with the addition of the project.

## 10.1 Existing Level of Service

Please refer to **Table 5** for a list of the study intersections and their corresponding existing Levels of Services. Please note that only one intersection, Pacific Avenue & Colorado Boulevard, operates at a LOS D or worse. The remaining 5 intersections operate at a Level of Service C or better.

*Table 5: Existing Conditions LOS*

Study Intersections		Existing Conditions			
		AM Peak Hour		PM Peak Hour	
		V/C (Delay)	LOS	V/C (Delay)	LOS
1	Pacific Avenue & W. Broadway	0.407	A	0.596	A
2	W. Broadway & Kenilworth Avenue <sup>1</sup>	(10.7 sec)	B	(12.4 sec)	B
3	W. Broadway & San Fernando Road	0.589	A	0.776	C
4	W. Broadway & Central Avenue	0.384	A	0.538	A
5	Pacific Avenue & Wilson Avenue	0.429	A	0.556	A
6	Pacific Avenue & Colorado Boulevard	0.761	C	0.813	D

1. Values indicates the delay to southbound Kenilworth Avenue (stop controlled)

## 10.2 Existing Plus Project Traffic Conditions

Please refer to **Table 6** for a list of the study intersections and their corresponding Levels of Services for the Existing Plus Project Traffic Conditions scenario. Please note that only one intersection, Pacific Avenue & Colorado Boulevard, operates at a LOS D or worse. The remaining 5 intersections operate at a Level of Service C or better.

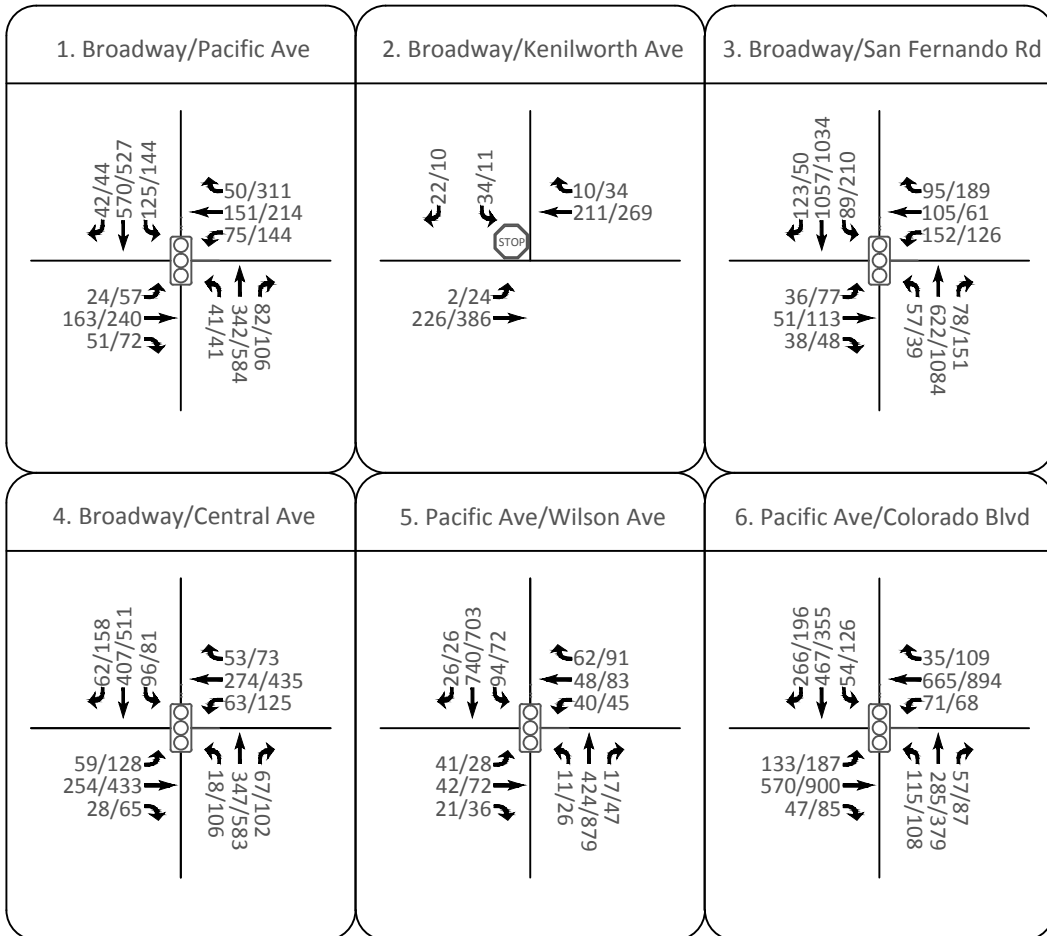
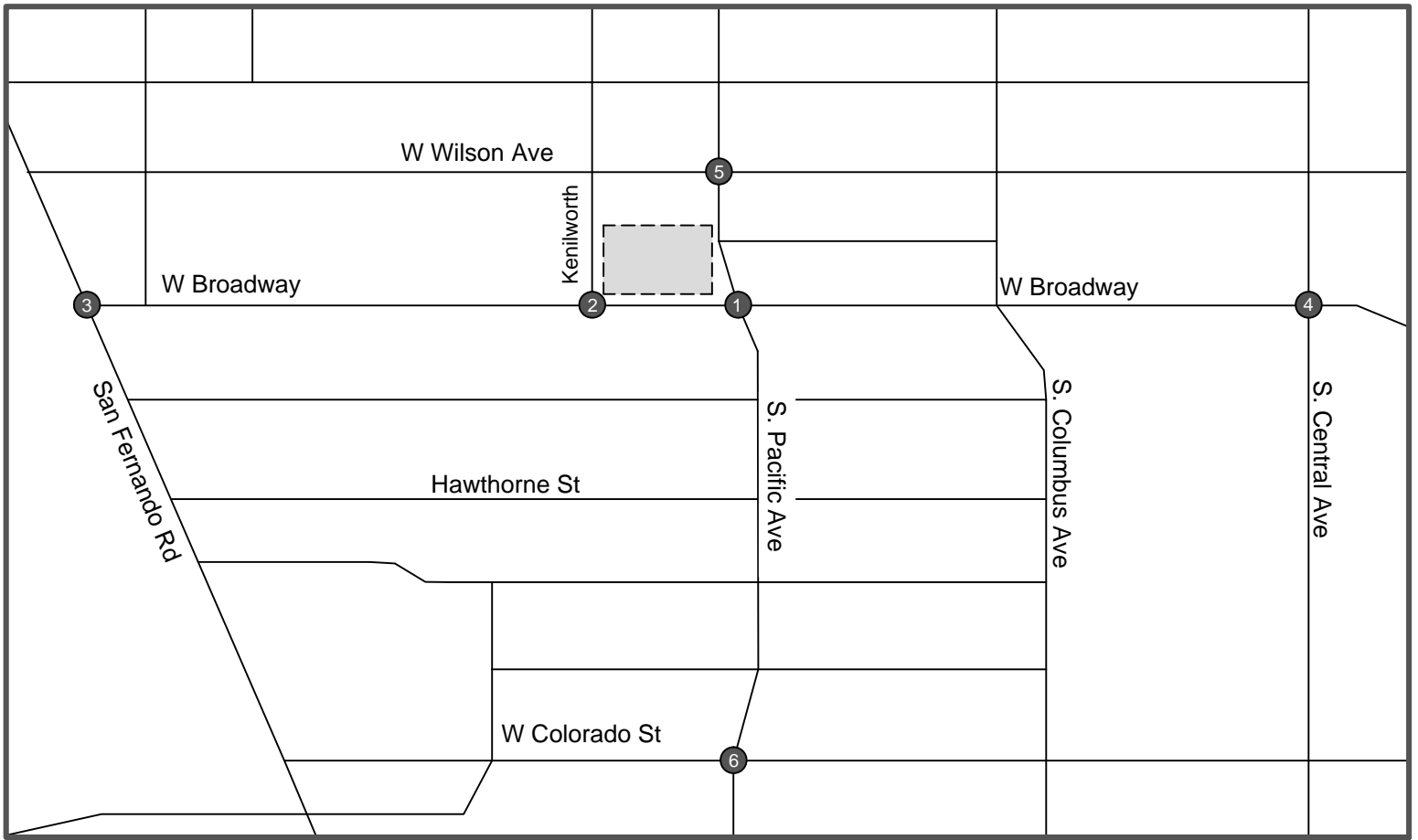
To determine the Existing Plus Project Traffic Conditions, the project related traffic was added to existing traffic conditions. Please refer to **Figure 16** for an illustration of the Existing Plus Project morning and evening peak hour intersection volumes.

Based on the City's significance criteria, the study intersections would not be significantly impacted as a result of the addition of the project traffic.

Table 6: Existing Plus Project Conditions LOS

Study Intersections		Existing Conditions				Existing Plus Project Conditions							
		AM Peak Hour		PM Peak Hour		AM Peak Hour				PM Peak Hour			
		V/C (Delay)	LOS	V/C (Delay)	LOS	V/C (Delay)	LOS	Change in v/c	Significant Impact	V/C (Delay)	LOS	Change in v/c	Significant Impact
1	Pacific Avenue & W. Broadway	0.407	A	0.596	A	0.418	A	0.011	No	0.603	B	0.007	No
2	W. Broadway & Kenilworth Avenue <sup>1</sup>	(10.7 sec)	B	(12.4 sec)	B	(11.1 sec)	B	-	No	(12.9 sec)	B	-	No
3	W. Broadway & San Fernando Road	0.589	A	0.776	C	0.593	A	0.004	No	0.783	C	0.007	No
4	W. Broadway & Central Avenue	0.384	A	0.538	A	0.385	A	0.001	No	0.544	A	0.006	No
5	Pacific Avenue & Wilson Avenue	0.429	A	0.556	A	0.441	A	0.012	No	0.561	A	0.005	No
6	Pacific Avenue & Colorado Boulevard	0.761	C	0.813	D	0.766	C	0.005	No	0.820	D	0.007	No

1. Values indicates the delay to southbound Kenilworth Avenue (stop controlled)



XXX/XXX = AM/PM Peak Hour Turning Movements

= Project Site



Not to Scale

### 10.3 Future (Year 2016) Without Project Traffic Conditions

Please refer to **Table 7** for a list of the study intersections and their corresponding Levels of Services for the Future (Year 2016) Without Project Traffic Conditions scenario. Please note that the following 2 study intersections perform at a level of service of D or worse in either the AM or PM peak hour times:

- W. Broadway & San Fernando Road
- Pacific Avenue & Colorado Boulevard

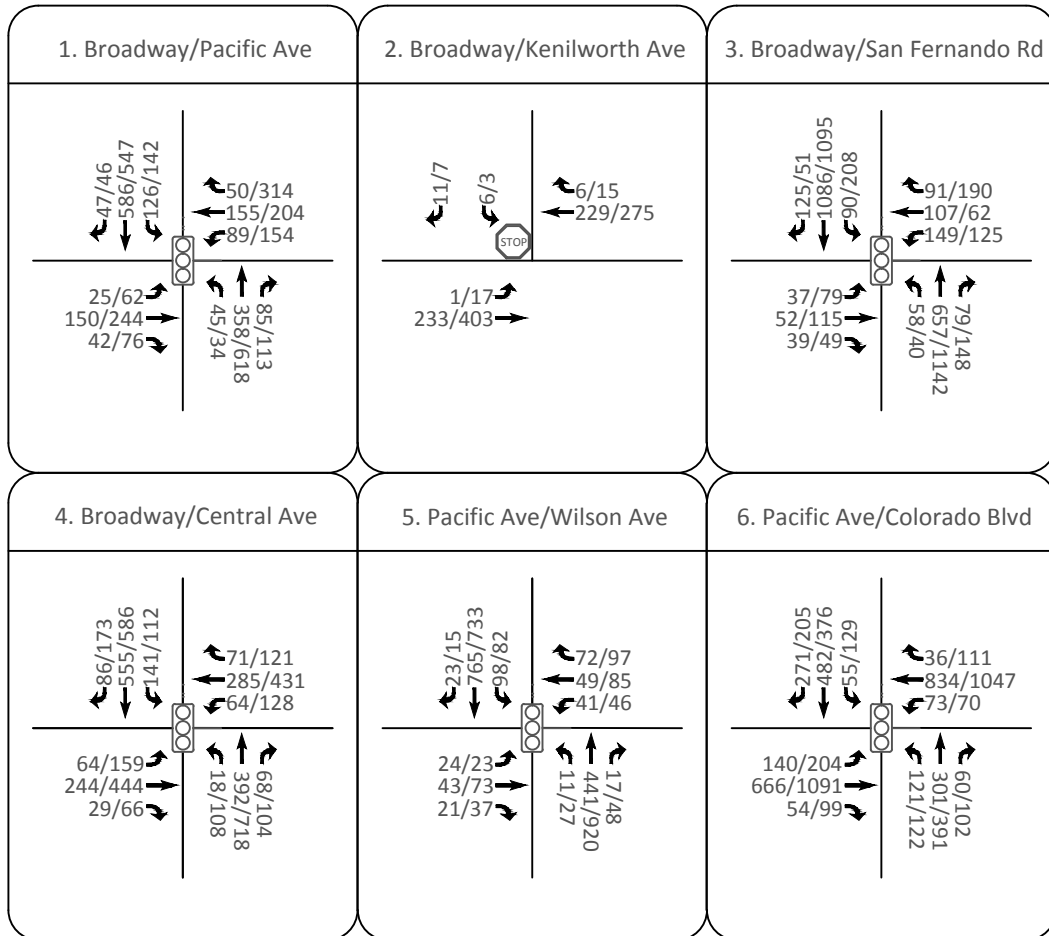
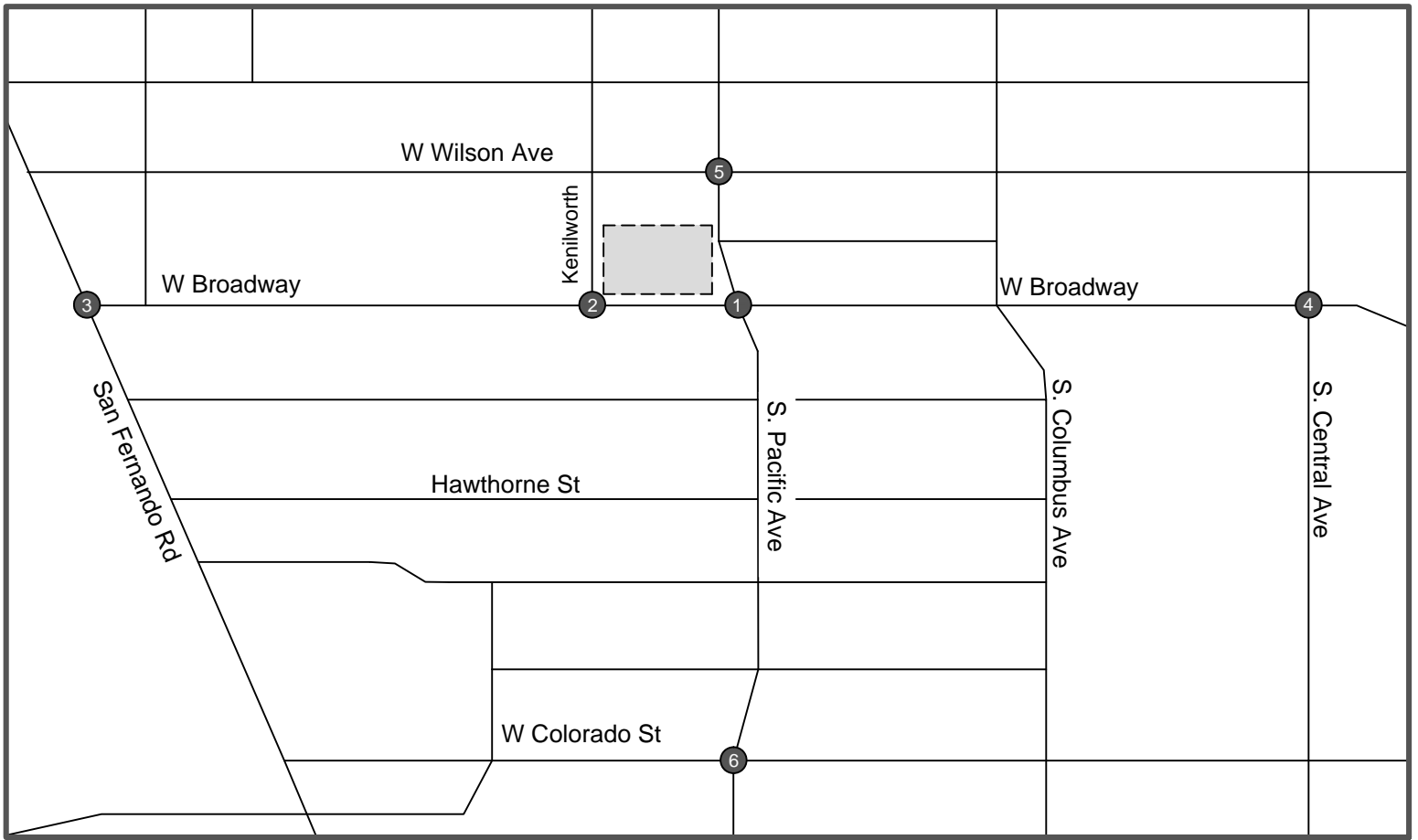
The remaining 4 study intersections as shown in the table below, operate at a Level of Service C or better.

To determine the Future (Year 2016) Without Project Traffic Conditions, the trips generated by related projects (projects under construction, approved, and planned) was added to existing conditions. In addition an ambient growth factor was assumed for a general increase in traffic conditions in the area of the project. Annual ambient growth, per the City of Glendale Traffic & Transportation Division, is considered to be 1% per year for the purpose of this study. This will ensure that the evaluation of the future without project conditions versus the future with project conditions are done in a way that more accurately depicts actual future conditions.

*Table 7: Opening Year (2016) Without Project Conditions LOS*

Study Intersections		Future w/o Project			
		AM Peak Hour		PM Peak Hour	
		V/C (Delay)	LOS	V/C (Delay)	LOS
1	Pacific Avenue & W. Broadway	0.427	A	0.617	B
2	W. Broadway & Kenilworth Avenue <sup>1</sup>	(10.9 sec)	B	(12.6 sec)	B
3	W. Broadway & San Fernando Road	0.601	B	0.801	D
4	W. Broadway & Central Avenue	0.435	A	0.613	B
5	Pacific Avenue & Wilson Avenue	0.444	A	0.582	A
6	Pacific Avenue & Colorado Boulevard	0.836	D	0.901	E

1. Value indicates the delay to southbound Kenilworth Avenue (stop controlled)



XXX/XXX = AM/PM Peak Hour Turning Movements

= Project Site



Not to Scale



## 10.4 Future (Year 2016) With Project Traffic Conditions

Please refer to **Table 8** for a list of the study intersections and their corresponding Levels of Services for the Future (Year 2016) With Project Traffic Conditions scenario.

Please note that the following 2 study intersections perform at a level of service of D or worse in either the AM or PM peak hour times:

- W. Broadway & San Fernando Road
- Pacific Avenue & Colorado Boulevard

The remaining 4 study intersections as shown in the table below, operate at a Level of Service C or better.

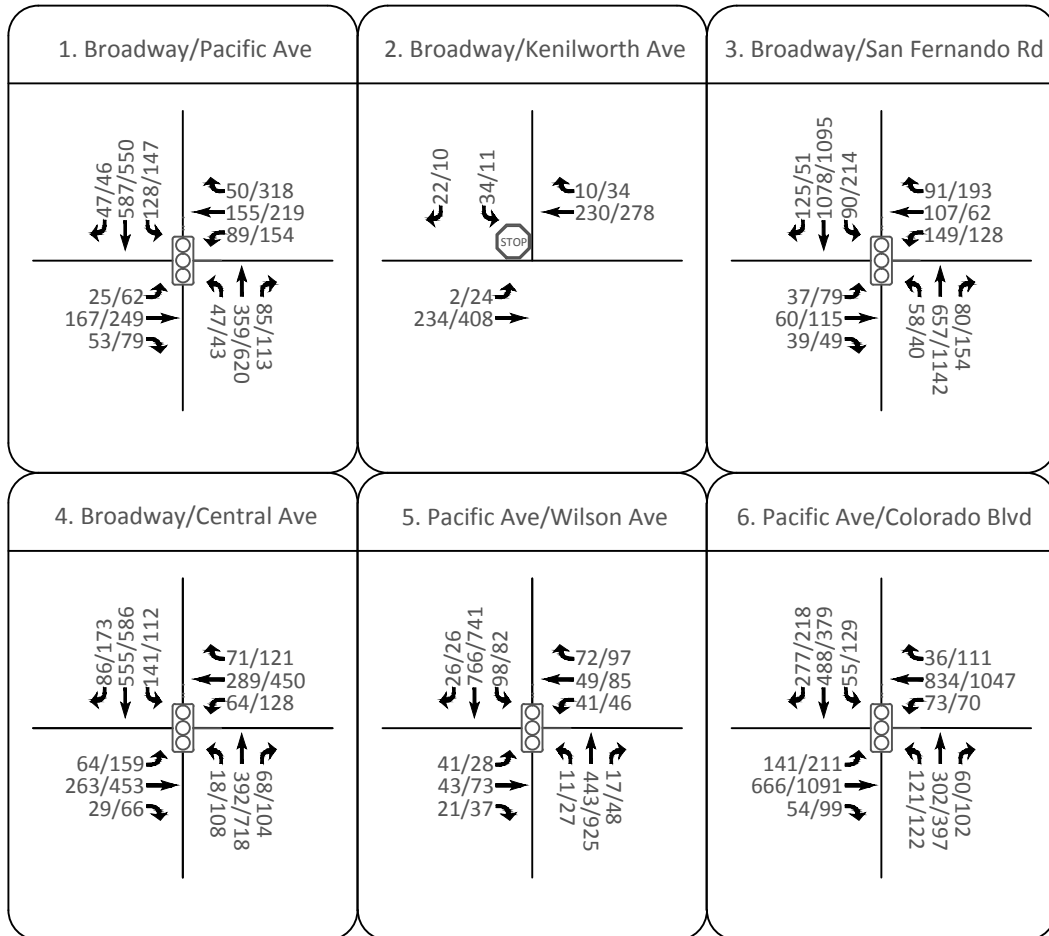
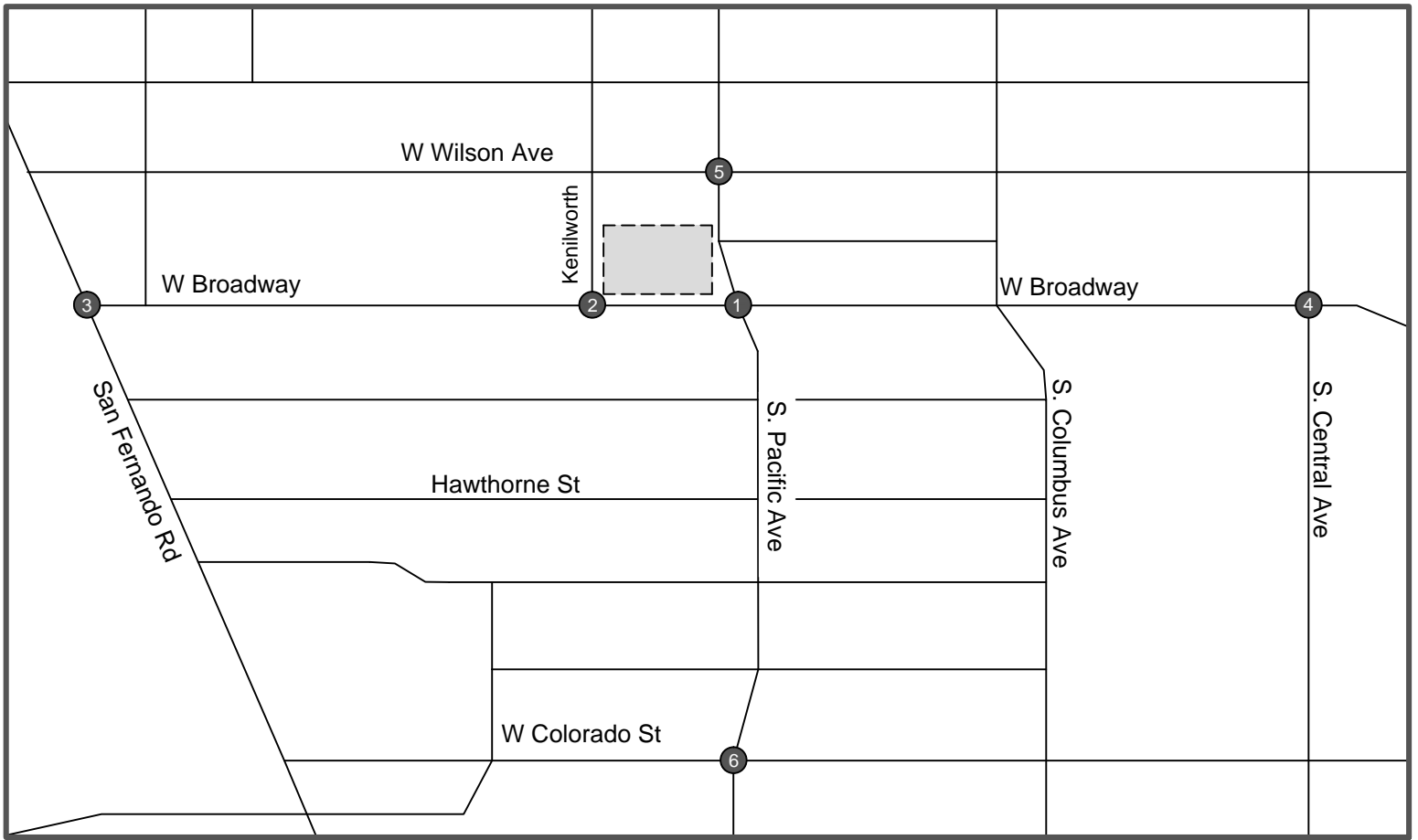
To determine the Future (Year 2016) With Project Traffic Conditions, the traffic generated by the proposed project was added to the Future (Year 2016) Without Project Traffic Conditions. Please refer to **Figure 18** for an illustration of the Future (Year 2016) with project traffic morning and evening peak hour intersection volumes.

Based on the City's significance criteria, the study intersections would not be significantly impacted as a result of the addition of the project traffic.

Table 8: Opening Year (2016) With Project Condition LOS

Study Intersections		Future Conditions W/O Project				Future Plus Project Conditions							
		AM Peak Hour		PM Peak Hour		AM Peak Hour				PM Peak Hour			
		V/C (Delay)	LOS	V/C (Delay)	LOS	V/C	LOS	Change in v/c	Significant Impact	V/C (Delay)	LOS	Change in v/c	Significant Impact
1	Pacific Avenue & W. Broadway	0.427	A	0.617	B	0.437	A	0.010	No	0.623	B	0.006	No
2	W. Broadway & Kenilworth Avenue <sup>1</sup>	(10.9 sec)	B	(12.6 sec)	B	(11.3 sec)	B	-	No	(13.1 sec)	B	-	No
3	W. Broadway & San Fernando Road	0.601	B	0.801	D	0.608	B	0.007	No	0.809	D	0.008	No
4	W. Broadway & Central Avenue	0.435	A	0.613	B	0.436	A	0.001	No	0.619	B	0.006	No
5	Pacific Avenue & Wilson Avenue	0.444	A	0.582	A	0.456	A	0.012	No	0.587	A	0.005	No
6	Pacific Avenue & Colorado Boulevard	0.836	D	0.901	E	0.841	D	0.005	No	0.904	E	0.003	No

1. Value indicates the delay to southbound Kenilworth Avenue (stop controlled)



XXX/XXX = AM/PM Peak Hour Turning Movements

= Project Site



Not to Scale

## 10.5 Street Segment Analysis

Further, please refer to **Table 9**, for a summary of the Project’s Street Segment Analysis for Kenilworth Avenue. Based on the trip generation for the Project, the residential component will add approximately 1077 vehicle trips. The analysis projects that approximately 30% of this traffic (323 trips) will travel northbound on Kenilworth while the remaining 70% (754) will travel south out of the driveway and directly onto W. Broadway.

*Table 9: Street Segment Analysis*

Street	Street Classification	Environmental Capacity	Direction	Existing (Directional)	Existing (Total)	Project Traffic	Existing Plus Project	Future Without Project	Future With Project	Significant Impact?
Kenilworth Avenue (Between Broadway and Wilson)	Community Collector	10,000 vehicles/day	NB	346	465	323	1542	473	1550	No
			SB	119		754				
Wilson Avenue (Between Kenilworth and Kenilworth)	Minor Arterial	30,000 vehicles/day	EB	1343	2693	323	3016	2747	3070	No
			WB	1350						

As can be seen in the above table, the environmental capacities of both Kenilworth Avenue and Wilson Avenue will not be exceeded with the addition of the project. Therefore, according to the City of Glendale Circulation Element, and the criteria set forth by the City of Glendale, there will be no significant impact to the nearby residential segments as a result of the Project.

## **11.0 CONSTRUCTION TRAFFIC ANALYSIS**

The construction of the Project would generate traffic from construction workers to and from the project site and truck traffic serving the project during construction. The number of workers and trucks expected to travel to and from the project site would vary throughout the construction phasing in order to maintain a reasonable schedule of completion.

The total construction period is expected to last approximately 24 months.

### **11.1 Construction Staging**

As part of the construction staging, segments of Pacific Avenue and/or W. Broadway will need to be closed to accommodate trucks/construction equipment to and from the project site. The majority of construction equipment and machinery will be stored at the construction site. It is expected that this phase will involve the use of standard construction equipment such as excavators, loaders, dozers, cranes and other equipment.

A street use permit will be required during construction for the closures. It is not anticipated that there will be impacts to the pedestrian and vehicular traffic as a result of these closures. A construction area traffic control plan will be prepared and submitted for the City's approval.

The estimated number of construction workers is 10-80 workers/day.

### **11.2 Construction Truck Traffic Demand**

The construction activities involving truck traffic to and from the project site is expected to last approximately 30 days and involve 8-15 trucks/day. Assuming a construction period of eight hours per day from 7:00 A.M. to 3:00 P.M., there will be approximately 1-2 trucks/hour. The majority of construction truck trips would occur outside of the A.M. and P.M. peak hour times, as workers will arrive to the job site before the morning peak hour time and depart before the afternoon peak time, it is expected that construction impacts from this construction activity would be less than significant.

### **11.3 Construction Worker Traffic Demand**

The maximum number of workers expected to be on site during construction is approximately 80 workers/day. According to the *CEQA Air Quality Handbook*, South Coast Air Quality Management District, the number of construction worker vehicles is estimated using an average vehicle ridership (AVR) of 1.135 person per vehicle. Using the described AVR, it is estimated that up to 71 inbound and outbound trips would be generated by construction worker traffic resulting in a total of 142 daily trips.

Per the developer, the construction workers will work normal shift hours from 7:00 A.M. and 3:30 P.M. Therefore the inbound construction worker trips would occur before the A.M. commuter peak hour periods. However given that the typical work shift would end at 3:30 P.M. it is anticipated that

approximately half of the workers would leave the site before the P.M. peak period. As a result, it is estimated that half of the outbound trips (36) would occur during the P.M. commuter peak hour.

### 11.4 Construction Traffic Impacts

To estimate the construction traffic impacts, the total daily truck trips was converted to passenger car equivalent using a factor of 2.0. This results in a truck trip equivalent of 60 trips (30 truck trips/day x 2.0). **Table 10** below shows the total trip generation of the project during its construction. As shown, a total of 404 passenger equivalent vehicle trips will be generated from 6:00 AM to 5:00 PM daily.

Table 10: Construction Trip Generation

Time		Employees Traffic		Truck Traffic		Total (including 2.0 passenger car equivalent factor for truck traffic)
From	To	Inbound	Outbound	Inbound	Outbound	
6:00 AM	7:00 AM	71	0	0	0	71
7:00 AM	8:00 AM	0	0	2	2	8
8:00 AM	9:00 AM	0	0	2	2	8
9:00 AM	10:00 AM	0	0	2	2	8
10:00 AM	11:00 AM	0	0	2	2	8
11:00 AM	12:00 PM	0	0	2	2	8
12:00 PM	1:00 PM	0	0	2	2	8
1:00 PM	2:00 PM	0	0	2	2	8
2:00 PM	3:00 PM	0	0	1	1	4
3:00 PM	4:00 PM	0	35	0	0	35
4:00 PM	5:00 PM	0	36	0	0	36
5:00 PM	6:00 PM	0	0	0	0	0
		71	71	15	15	202

 Commuter Peak Hours

As can be seen in the above table, there will be approximately 8 AM Peak Hour trips and 36 PM Peak Hour trips. Given that a majority of the construction related traffic generated to and from the project site would occur before and after the A.M. and P.M. peak commute hours respectively, it is expected that traffic impacts from construction activity would be less than significant. Please also note that the expected traffic generated by the construction activities is less than that of the existing land use that will be removed prior to construction. **Table 11** outlines the net change in traffic generated to and from the project site as a result of the construction activities.

Table 11: Net Construction Trip Generation

	Construction Trips Generated	Existing Trips Removed	Net Trips
		Office Depot	
AM Peak	8	-24	-16
PM Peak	36	-86	-50

### 11.5 Construction Traffic Control & Haul Route Plan

As part of the construction phase of the project, the project contractor will be required to provide a Construction Traffic Control Plan, for approval by the City of Glendale Public Works Department. This plan will include details regarding potential lane and sidewalk closures, parking restrictions on streets near the project and any regulatory and construction signage including changeable message signs throughout construction. In addition, a Haul Route will be developed for delivery and haul trucks throughout the day to and from the project site to accommodate construction related traffic. The Haul Route Plan will be submitted to the City of Glendale Public Works Department for approval. It is anticipated that the majority of the construction worker parking will occur on-site. The Construction Traffic Control Plan will also include Construction Parking for the Project’s construction workers.

## 12.0 CONCLUSION/MITIGATION MEASURES

The Traffic Impact Analysis study projected the trip generated by the proposed Project for the construction of 180 residential units, 14,200 Sq. Ft retail, and a 4,000 Sq. Ft restaurant. To evaluate the impacts of the trips projected to be generated by the project, 6 intersections were analyzed during the AM and PM peak hours. Traffic counts were obtained at the study intersections and the Level of Service (LOS) of these intersections was evaluated under the following scenarios:

- (1) Existing Traffic Condition
- (2) Existing Plus Project Traffic Condition
- (3) Future (2016) Without Project Traffic Conditions (Existing plus ambient growth & related projects)
- (4) Future (2016) With Project Traffic Conditions

Based on the City's significance criteria, the study intersections would not be significantly impacted as a result of the addition of the project traffic. Further, the two street segments near the project site were analyzed and did not exceed the City's threshold for impact.

Given that the project generates less than 150 AM and PM peak hour trips, it was determined that the project will not have significant impact on the SR-134/I-5 Freeway mainline segments.

### **Construction Traffic Impacts**

Given that a majority of the construction related traffic generated to and from the project site would occur before and after the A.M. and P.M. peak commute hours respectively, it is expected that traffic impacts from construction activity would be less than significant.

To ensure all construction traffic impacts (including construction worker trips and truck traffic for material delivery and material import/export) are less than significant during construction, a Construction Traffic Management Plan will be prepared and submitted to the City's Public Works Department for approval. The Construction Traffic Management plan will include the following: a Construction Traffic Control Plan, a Construction Parking Plan, and a Haul Routes including construction hours.

### **Mitigation Measures**

The following TDM measures are recommended for the projects to reduce project trips and enhance the quality of life for the project's tenants and visitors:

- (1) Bike lockers for the tenants of the project on a reservation basis



- (2) Bike racks on the perimeter of the project as well as the common public areas. Location of the racks to be approved by the City's Public Works Department.
- (3) Transit/Ridesharing information booth at the Project's rental office.

Appendix A  
Manual Traffic Counts

**CITY TRAFFIC COUNTERS**  
**626.991.7522**  
**www.ctcounters.com**

File Name : pacific\_broadway  
 Site Code : 00000000  
 Start Date : 8/28/2014  
 Page No : 1

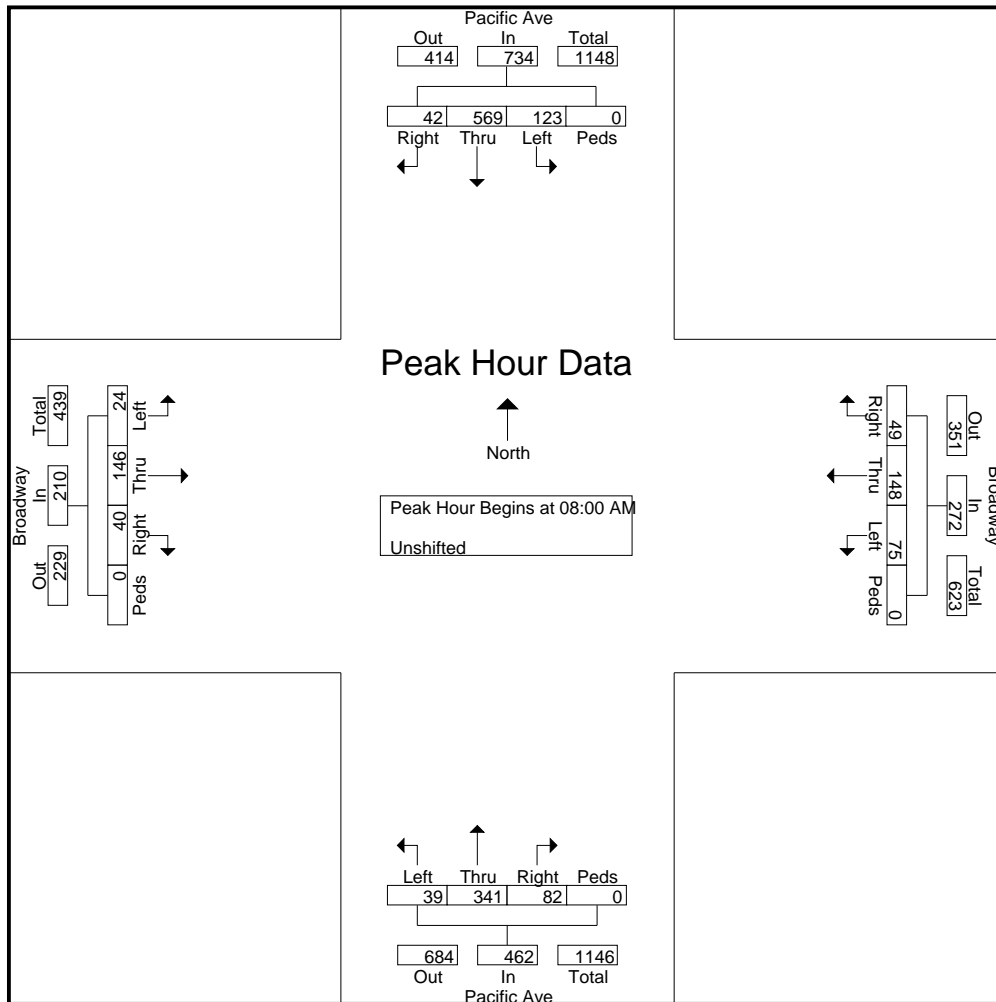
**Groups Printed- Unshifted**

Start Time	Pacific Ave Southbound				Broadway Westbound				Pacific Ave Northbound				Broadway Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00 AM	6	97	7	0	14	22	7	0	6	41	12	0	2	8	4	0	226
07:15 AM	7	109	6	0	12	22	11	0	0	61	20	0	3	18	1	0	270
07:30 AM	24	104	8	0	11	21	12	0	6	67	16	0	3	30	6	0	308
07:45 AM	26	112	18	0	13	32	14	0	3	69	19	0	3	33	10	0	352
Total	63	422	39	0	50	97	44	0	15	238	67	0	11	89	21	0	1156
08:00 AM	30	137	11	0	27	33	9	0	21	101	19	0	6	28	12	0	434
08:15 AM	30	154	10	0	20	39	11	0	6	70	23	0	11	36	15	0	425
08:30 AM	23	146	13	0	17	31	16	0	6	68	14	0	5	40	5	0	384
08:45 AM	40	132	8	0	11	45	13	0	6	102	26	0	2	42	8	0	435
Total	123	569	42	0	75	148	49	0	39	341	82	0	24	146	40	0	1678
04:00 PM	38	100	3	0	28	42	54	0	9	126	15	0	9	48	11	0	483
04:15 PM	25	117	8	0	27	45	68	0	5	114	21	0	11	45	9	0	495
04:30 PM	29	102	6	0	27	42	55	0	8	123	32	0	10	46	16	0	496
04:45 PM	35	129	6	0	27	41	83	0	6	120	27	0	10	62	19	0	565
Total	127	448	23	0	109	170	260	0	28	483	95	0	40	201	55	0	2039
05:00 PM	33	119	12	0	38	52	88	0	9	131	23	0	15	57	13	0	590
05:15 PM	34	135	11	0	37	39	79	0	11	153	23	0	21	58	13	0	614
05:30 PM	31	119	11	0	32	67	81	0	6	158	30	0	13	59	22	0	629
05:45 PM	41	151	10	0	37	41	59	0	5	140	30	0	8	61	21	0	604
Total	139	524	44	0	144	199	307	0	31	582	106	0	57	235	69	0	2437
Grand Total	452	1963	148	0	378	614	660	0	113	1644	350	0	132	671	185	0	7310
Apprch %	17.6	76.6	5.8	0	22.9	37.2	40	0	5.4	78	16.6	0	13.4	67.9	18.7	0	
Total %	6.2	26.9	2	0	5.2	8.4	9	0	1.5	22.5	4.8	0	1.8	9.2	2.5	0	

**CITY TRAFFIC COUNTERS**  
**626.991.7522**  
**www.ctcounters.com**

File Name : pacific\_broadway  
 Site Code : 00000000  
 Start Date : 8/28/2014  
 Page No : 2

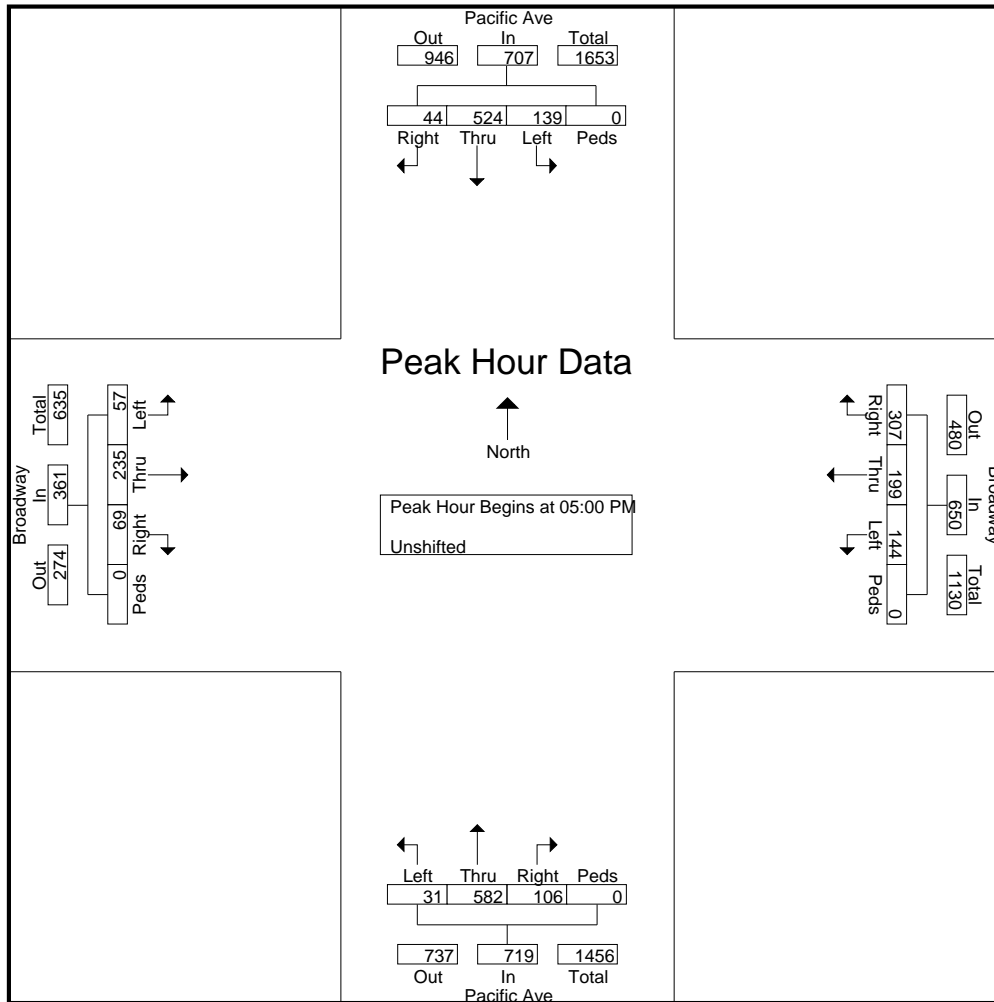
Start Time	Pacific Ave Southbound					Broadway Westbound					Pacific Ave Northbound					Broadway Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	30	137	11	0	178	27	33	9	0	69	21	101	19	0	141	6	28	12	0	46	434
08:15 AM	30	154	10	0	194	20	39	11	0	70	6	70	23	0	99	11	36	15	0	62	425
08:30 AM	23	146	13	0	182	17	31	16	0	64	6	68	14	0	88	5	40	5	0	50	384
08:45 AM	40	132	8	0	180	11	45	13	0	69	6	102	26	0	134	2	42	8	0	52	435
Total Volume	123	569	42	0	734	75	148	49	0	272	39	341	82	0	462	24	146	40	0	210	1678
% App. Total	16.8	77.5	5.7	0		27.6	54.4	18	0		8.4	73.8	17.7	0		11.4	69.5	19	0		
PHF	.769	.924	.808	.000	.946	.694	.822	.766	.000	.971	.464	.836	.788	.000	.819	.545	.869	.667	.000	.847	.964



**CITY TRAFFIC COUNTERS**  
**626.991.7522**  
**www.ctcounters.com**

File Name : pacific\_broadway  
 Site Code : 00000000  
 Start Date : 8/28/2014  
 Page No : 3

Start Time	Pacific Ave Southbound					Broadway Westbound					Pacific Ave Northbound					Broadway Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	33	119	12	0	164	38	52	88	0	178	9	131	23	0	163	15	57	13	0	85	590
05:15 PM	34	135	11	0	180	37	39	79	0	155	11	153	23	0	187	21	58	13	0	92	614
05:30 PM	31	119	11	0	161	32	67	81	0	180	6	158	30	0	194	13	59	22	0	94	629
05:45 PM	41	151	10	0	202	37	41	59	0	137	5	140	30	0	175	8	61	21	0	90	604
Total Volume	139	524	44	0	707	144	199	307	0	650	31	582	106	0	719	57	235	69	0	361	2437
% App. Total	19.7	74.1	6.2	0		22.2	30.6	47.2	0		4.3	80.9	14.7	0		15.8	65.1	19.1	0		
PHF	.848	.868	.917	.000	.875	.947	.743	.872	.000	.903	.705	.921	.883	.000	.927	.679	.963	.784	.000	.960	.969



**CITY TRAFFIC COUNTERS**  
**626.991.7522**  
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File Name : kenilworth\_broadway  
 Site Code : 00000000  
 Start Date : 8/28/2014  
 Page No : 1

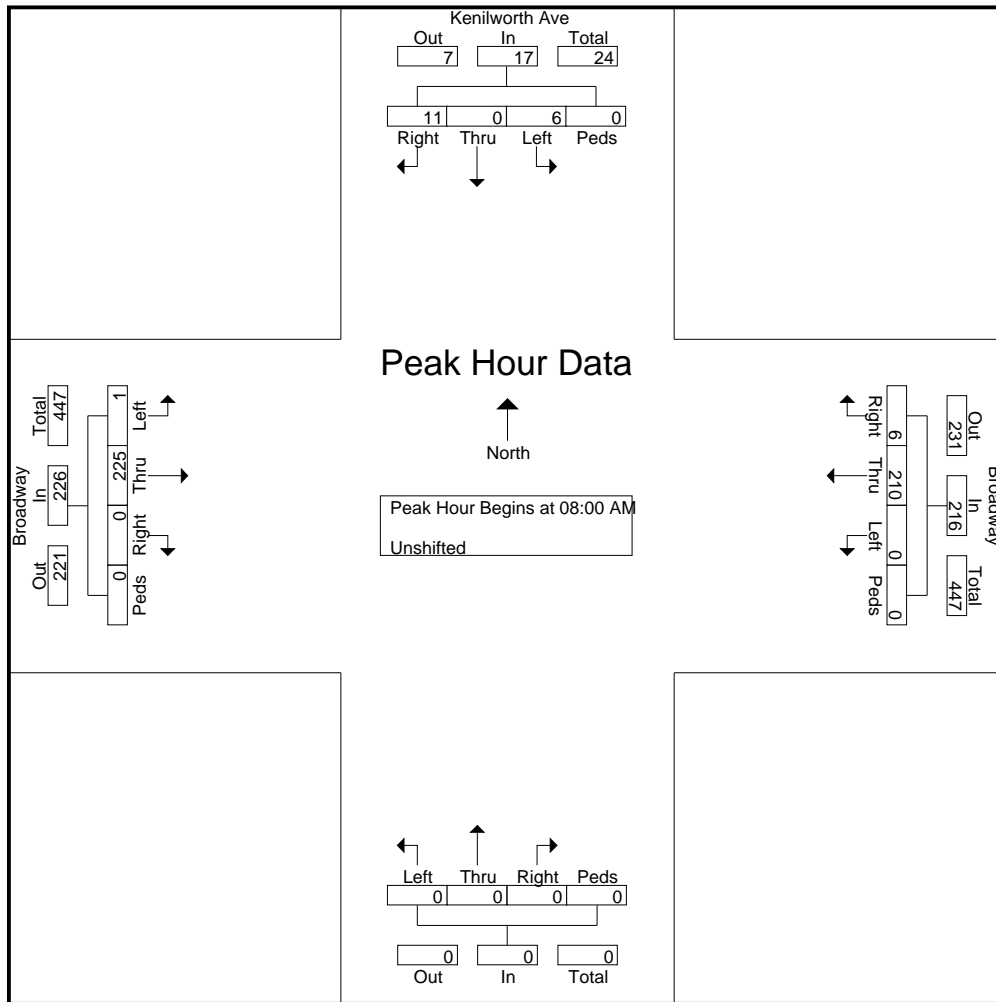
**Groups Printed- Unshifted**

Start Time	Kenilworth Ave Southbound				Broadway Westbound				Northbound				Broadway Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00 AM	0	0	1	0	0	37	1	0	0	0	0	0	0	18	0	0	57
07:15 AM	1	0	1	0	0	29	0	0	0	0	0	0	0	20	0	0	51
07:30 AM	3	0	2	0	0	33	0	0	0	0	0	0	0	35	0	0	73
07:45 AM	0	0	2	0	0	50	0	0	0	0	0	0	3	45	0	0	100
Total	4	0	6	0	0	149	1	0	0	0	0	0	3	118	0	0	281
08:00 AM	0	0	2	0	0	61	2	0	0	0	0	0	1	56	0	0	122
08:15 AM	1	0	1	0	0	49	3	0	0	0	0	0	0	61	0	0	115
08:30 AM	3	0	3	0	0	48	0	0	0	0	0	0	0	54	0	0	108
08:45 AM	2	0	5	0	0	52	1	0	0	0	0	0	0	54	0	0	114
Total	6	0	11	0	0	210	6	0	0	0	0	0	1	225	0	0	459
04:00 PM	1	0	0	0	0	50	1	0	0	0	0	0	2	69	0	0	123
04:15 PM	1	0	1	0	0	56	3	0	0	0	0	0	2	57	0	0	120
04:30 PM	1	0	1	0	0	56	5	0	0	0	0	0	3	66	0	0	132
04:45 PM	3	0	3	0	0	52	2	0	0	0	0	0	3	86	0	0	149
Total	6	0	5	0	0	214	11	0	0	0	0	0	10	278	0	0	524
05:00 PM	1	0	1	0	0	70	3	0	0	0	0	0	5	93	0	0	173
05:15 PM	1	0	6	0	0	65	2	0	0	0	0	0	5	89	0	0	168
05:30 PM	0	0	0	0	0	73	8	0	0	0	0	0	5	104	0	0	190
05:45 PM	1	0	0	0	0	58	2	0	0	0	0	0	2	95	0	0	158
Total	3	0	7	0	0	266	15	0	0	0	0	0	17	381	0	0	689
Grand Total	19	0	29	0	0	839	33	0	0	0	0	0	31	1002	0	0	1953
Apprch %	39.6	0	60.4	0	0	96.2	3.8	0	0	0	0	0	3	97	0	0	
Total %	1	0	1.5	0	0	43	1.7	0	0	0	0	0	1.6	51.3	0	0	

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File Name : kenilworth\_broadway  
 Site Code : 00000000  
 Start Date : 8/28/2014  
 Page No : 2

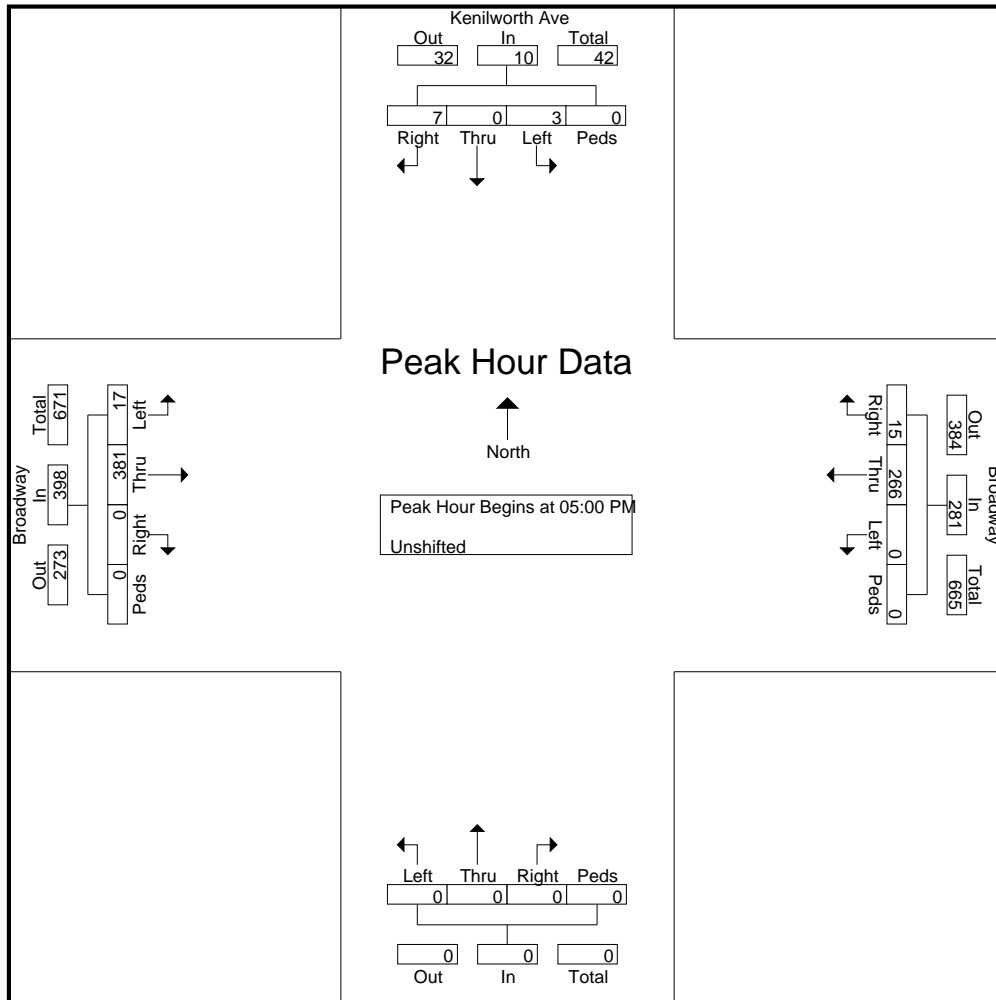
Start Time	Kenilworth Ave Southbound					Broadway Westbound					Northbound					Broadway Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	2	0	2	0	61	2	0	63	0	0	0	0	0	1	56	0	0	57	122
08:15 AM	1	0	1	0	2	0	49	3	0	52	0	0	0	0	0	0	61	0	0	61	115
08:30 AM	3	0	3	0	6	0	48	0	0	48	0	0	0	0	0	0	54	0	0	54	108
08:45 AM	2	0	5	0	7	0	52	1	0	53	0	0	0	0	0	0	54	0	0	54	114
Total Volume	6	0	11	0	17	0	210	6	0	216	0	0	0	0	0	1	225	0	0	226	459
% App. Total	35.3	0	64.7	0		0	97.2	2.8	0		0	0	0	0		0.4	99.6	0	0		
PHF	.500	.000	.550	.000	.607	.000	.861	.500	.000	.857	.000	.000	.000	.000	.000	.250	.922	.000	.000	.926	.941



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**626.991.7522**  
**www.ctcounters.com**

File Name : kenilworth\_broadway  
 Site Code : 00000000  
 Start Date : 8/28/2014  
 Page No : 3

Start Time	Kenilworth Ave Southbound					Broadway Westbound					Northbound					Broadway Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	1	0	1	0	2	0	70	3	0	73	0	0	0	0	0	5	93	0	0	98	173
05:15 PM	1	0	6	0	7	0	65	2	0	67	0	0	0	0	0	5	89	0	0	94	168
05:30 PM	0	0	0	0	0	0	73	8	0	81	0	0	0	0	0	5	104	0	0	109	190
05:45 PM	1	0	0	0	1	0	58	2	0	60	0	0	0	0	0	2	95	0	0	97	158
Total Volume	3	0	7	0	10	0	266	15	0	281	0	0	0	0	0	17	381	0	0	398	689
% App. Total	30	0	70	0		0	94.7	5.3	0		0	0	0	0		4.3	95.7	0	0		
PHF	.750	.000	.292	.000	.357	.000	.911	.469	.000	.867	.000	.000	.000	.000	.000	.850	.916	.000	.000	.913	.907



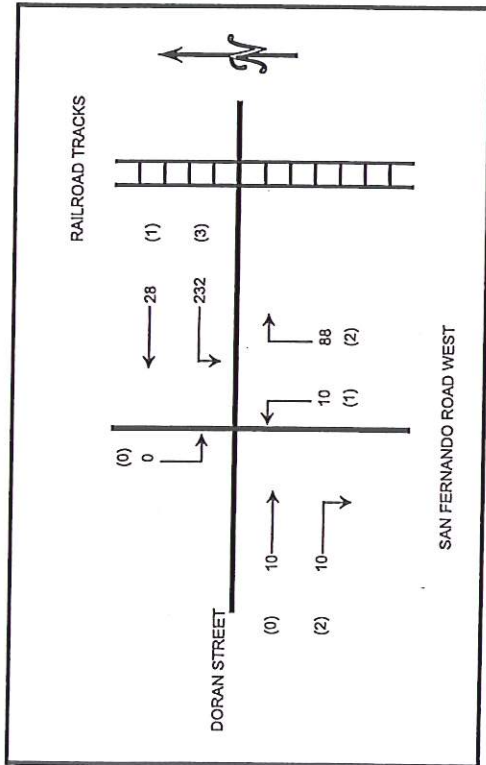


**CITY TRAFFIC COUNTERS**  
**626.991.7522**  
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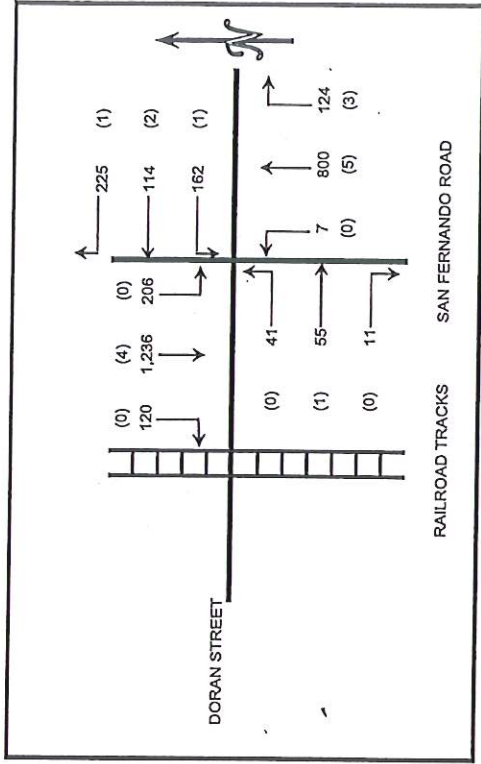
Kenilworth Ave  
 Bt Broadway & Wilson

Start Time	28-Aug-14 Thu	South		Hour Totals		North		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	2			2	10				
12:15		0	0			3	3				
12:30		1	0			0	2				
12:45		1	1	2	3	1	6	6	21	8	24
01:00		0	2			0	8				
01:15		1	2			1	2				
01:30		0	2			1	6				
01:45		0	3	1	9	0	6	2	22	3	31
02:00		0	2			1	8				
02:15		0	3			0	6				
02:30		0	1			0	4				
02:45		0	0	0	6	1	5	2	23	2	29
03:00		0	1			0	10				
03:15		0	0			0	6				
03:30		0	2			0	2				
03:45		0	6	0	9	0	16	0	34	0	43
04:00		0	2			0	5				
04:15		0	4			1	4				
04:30		0	3			1	6				
04:45		0	4	0	13	1	6	3	21	3	34
05:00		0	3			1	9				
05:15		0	4			1	8				
05:30		0	3			4	13				
05:45		0	4	0	14	0	5	6	35	6	49
06:00		0	2			1	2				
06:15		0	3			3	7				
06:30		0	1			0	5				
06:45		0	0	0	6	1	2	5	16	5	22
07:00		1	0			1	4				
07:15		4	3			0	9				
07:30		3	0			1	1				
07:45		2	0	10	3	2	2	4	16	14	19
08:00		4	0			3	8				
08:15		2	2			2	5				
08:30		3	0			1	2				
08:45		4	0	13	2	2	0	8	15	21	17
09:00		2	0			8	2				
09:15		1	0			8	2				
09:30		1	0			2	7				
09:45		1	1	5	1	10	4	28	15	33	16
10:00		0	1			12	1				
10:15		2	1			8	1				
10:30		2	0			8	1				
10:45		0	0	4	2	2	1	30	4	34	6
11:00		2	0			6	1				
11:15		6	0			8	1				
11:30		4	0			4	2				
11:45		4	0	16	0	6	2	24	6	40	6
Total		51	68			118	228			169	296
Percent		42.9%	57.1%			34.1%	65.9%			36.3%	63.7%
Grand Total		51	68			118	228			169	296
Percent		42.9%	57.1%			34.1%	65.9%			36.3%	63.7%
ADT		ADT 465		AADT 465							

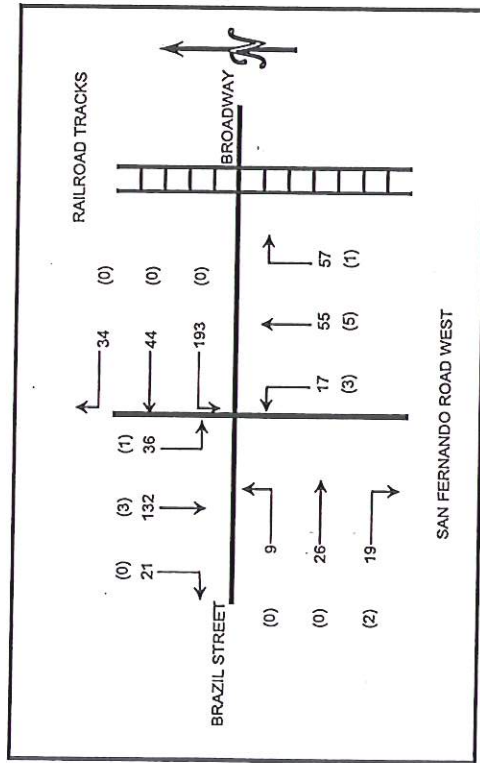
MANUAL TRAFFIC COUNTS FOR FEBRUARY 27, 2009  
AM PEAK HOUR



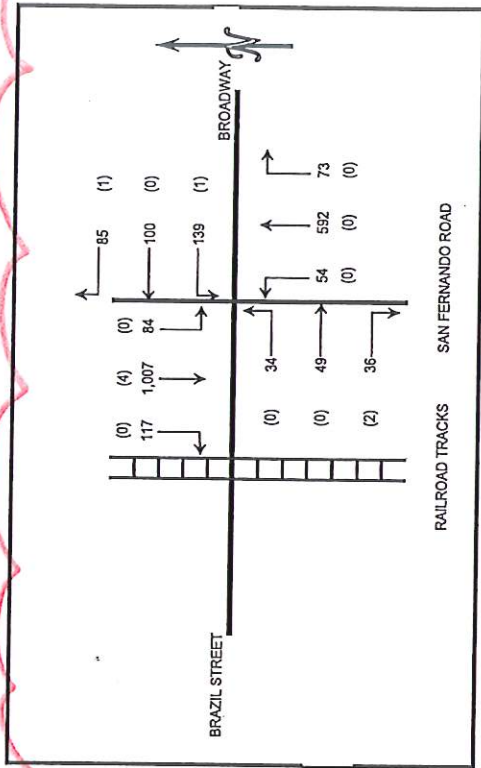
San Fernando West x Doran (AM PEAK)



San Fernando x Doran (AM PEAK)



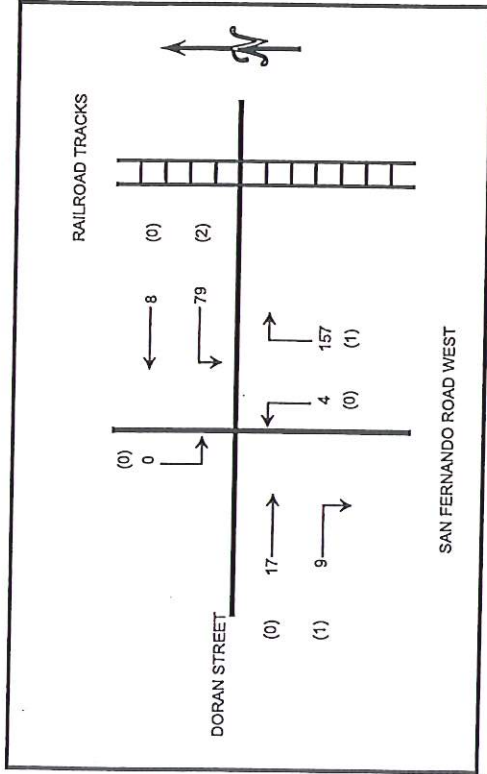
San Fernando West x Brazil (AM PEAK)



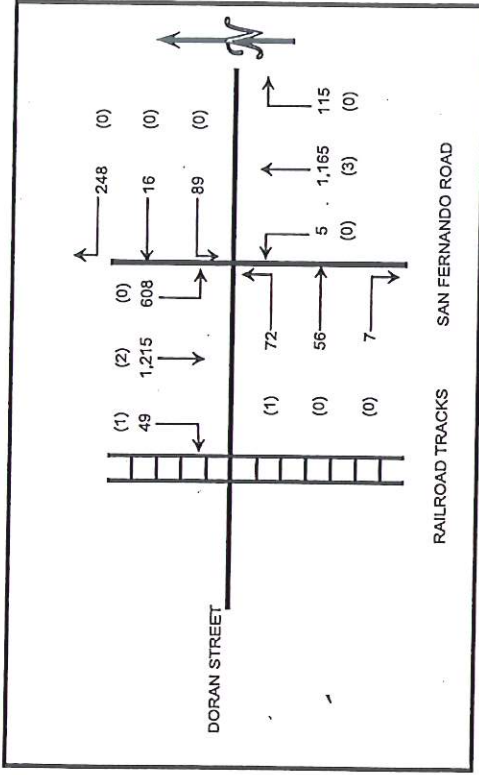
San Fernando x Broadway (AM PEAK)

NOTE:  
X = Total Vehicles  
(X) = Heavy Trucks

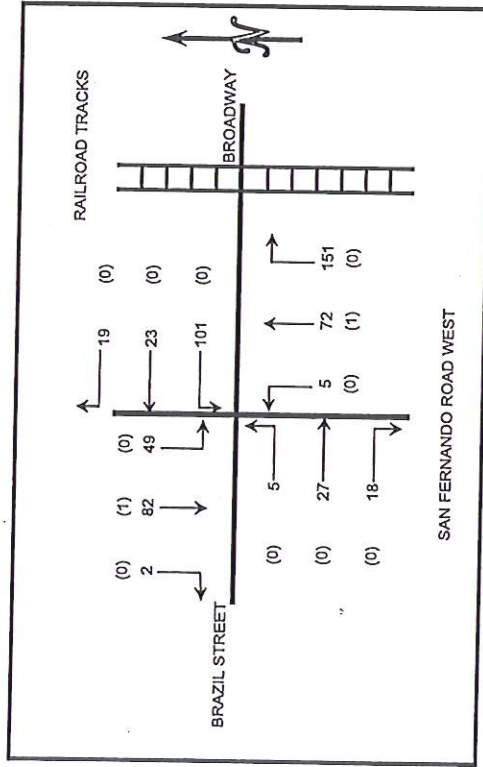
MANUAL TRAFFIC COUNTS FOR FEBRUARY 27, 2008-2009  
PM PEAK HOUR



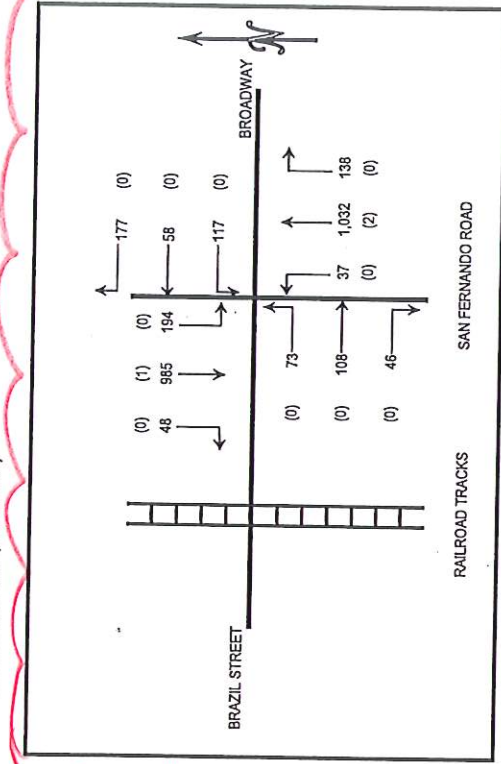
San Fernando West x Doran (PM PEAK)



San Fernando x Doran (PM PEAK)



San Fernando West x Brazil (PM PEAK)



San Fernando x Broadway (PM PEAK)

NOTE:  
X = Total Vehicles  
(X) = Heavy Trucks

**CITY TRAFFIC COUNTERS**  
**626.991.7522**  
**www.ctcounters.com**

File Name : central\_broadway  
 Site Code : 00000000  
 Start Date : 8/28/2014  
 Page No : 1

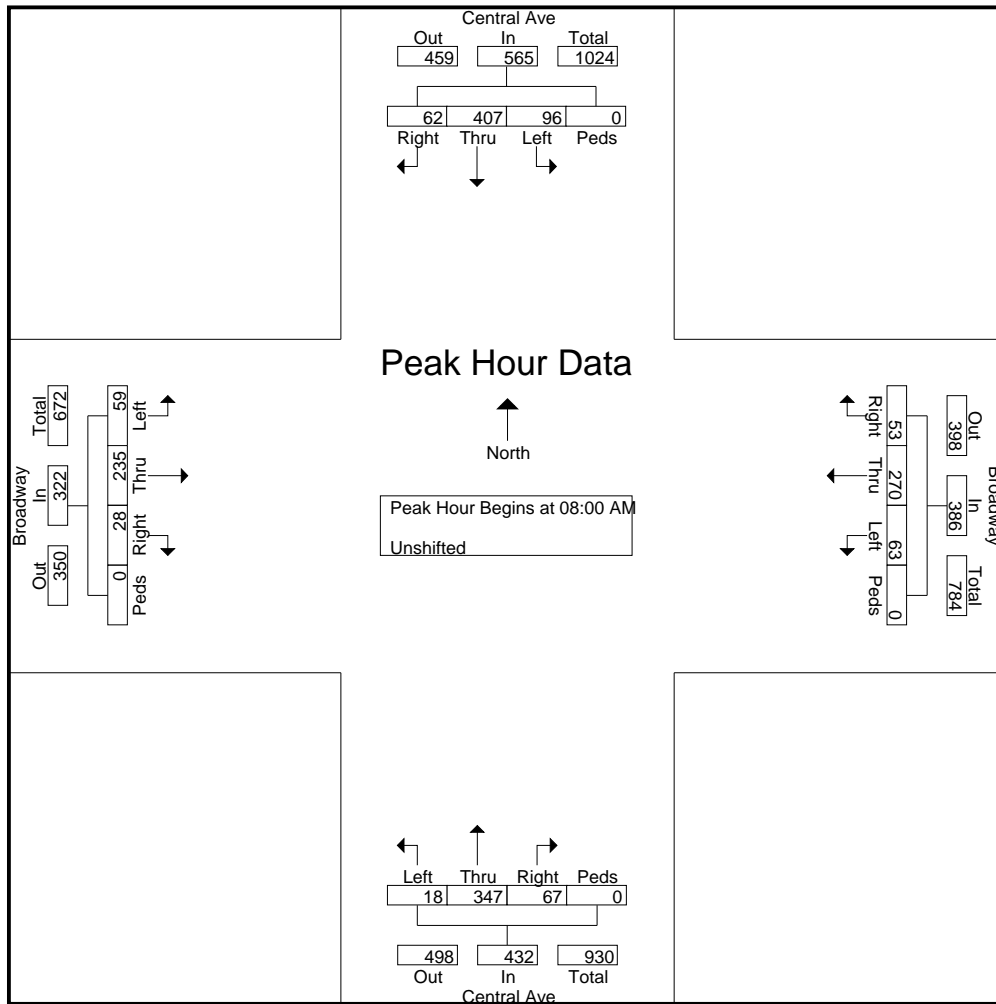
**Groups Printed- Unshifted**

Start Time	Central Ave Southbound				Broadway Westbound				Central Ave Northbound				Broadway Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00 AM	18	68	7	0	10	32	9	0	4	38	9	0	1	22	2	0	220
07:15 AM	15	91	11	0	13	44	8	0	3	57	14	0	6	27	7	0	296
07:30 AM	21	97	9	0	14	27	15	0	7	78	14	0	12	57	6	0	357
07:45 AM	33	135	11	0	7	47	14	0	9	101	23	0	10	44	9	0	443
Total	87	391	38	0	44	150	46	0	23	274	60	0	29	150	24	0	1316
08:00 AM	19	102	21	0	22	72	12	0	4	99	10	0	12	55	6	0	434
08:15 AM	25	100	9	0	12	68	17	0	4	75	18	0	14	62	9	0	413
08:30 AM	28	106	9	0	9	57	14	0	5	86	19	0	19	46	7	0	405
08:45 AM	24	99	23	0	20	73	10	0	5	87	20	0	14	72	6	0	453
Total	96	407	62	0	63	270	53	0	18	347	67	0	59	235	28	0	1705
04:00 PM	22	95	38	0	35	68	21	0	22	135	35	0	34	78	16	0	599
04:15 PM	17	115	40	0	28	93	19	0	19	130	25	0	35	92	20	0	633
04:30 PM	16	127	43	0	31	95	31	0	30	151	27	0	34	85	16	0	686
04:45 PM	19	122	36	0	24	92	20	0	18	127	30	0	32	115	11	0	646
Total	74	459	157	0	118	348	91	0	89	543	117	0	135	370	63	0	2564
05:00 PM	28	137	31	0	35	110	25	0	32	137	25	0	31	110	14	0	715
05:15 PM	21	112	39	0	34	80	18	0	17	160	24	0	31	106	17	0	659
05:30 PM	18	115	37	0	29	112	13	0	32	151	34	0	32	106	16	0	695
05:45 PM	14	147	51	0	27	114	17	0	25	135	19	0	34	102	18	0	703
Total	81	511	158	0	125	416	73	0	106	583	102	0	128	424	65	0	2772
Grand Total	338	1768	415	0	350	1184	263	0	236	1747	346	0	351	1179	180	0	8357
Apprch %	13.4	70.1	16.5	0	19.5	65.9	14.6	0	10.1	75	14.9	0	20.5	68.9	10.5	0	
Total %	4	21.2	5	0	4.2	14.2	3.1	0	2.8	20.9	4.1	0	4.2	14.1	2.2	0	

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**626.991.7522**  
**www.ctcounters.com**

File Name : central\_broadway  
 Site Code : 00000000  
 Start Date : 8/28/2014  
 Page No : 2

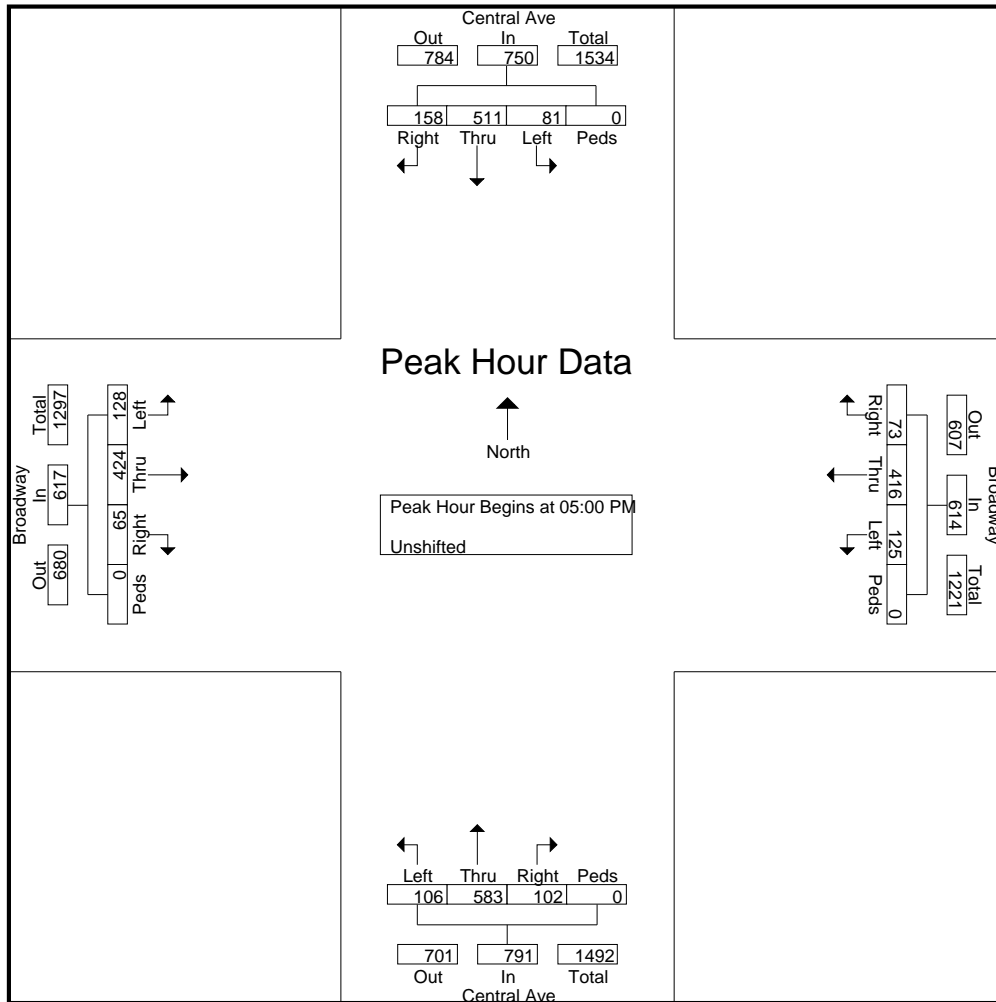
Start Time	Central Ave Southbound					Broadway Westbound					Central Ave Northbound					Broadway Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	19	102	21	0	142	22	72	12	0	106	4	99	10	0	113	12	55	6	0	73	434
08:15 AM	25	100	9	0	134	12	68	17	0	97	4	75	18	0	97	14	62	9	0	85	413
08:30 AM	28	106	9	0	143	9	57	14	0	80	5	86	19	0	110	19	46	7	0	72	405
08:45 AM	24	99	23	0	146	20	73	10	0	103	5	87	20	0	112	14	72	6	0	92	453
Total Volume	96	407	62	0	565	63	270	53	0	386	18	347	67	0	432	59	235	28	0	322	1705
% App. Total	17	72	11	0		16.3	69.9	13.7	0		4.2	80.3	15.5	0		18.3	73	8.7	0		
PHF	.857	.960	.674	.000	.967	.716	.925	.779	.000	.910	.900	.876	.838	.000	.956	.776	.816	.778	.000	.875	.941



**CITY TRAFFIC COUNTERS**  
**626.991.7522**  
**www.ctcounters.com**

File Name : central\_broadway  
 Site Code : 00000000  
 Start Date : 8/28/2014  
 Page No : 3

Start Time	Central Ave Southbound					Broadway Westbound					Central Ave Northbound					Broadway Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	28	137	31	0	196	35	110	25	0	170	32	137	25	0	194	31	110	14	0	155	715
05:15 PM	21	112	39	0	172	34	80	18	0	132	17	160	24	0	201	31	106	17	0	154	659
05:30 PM	18	115	37	0	170	29	112	13	0	154	32	151	34	0	217	32	106	16	0	154	695
05:45 PM	14	147	51	0	212	27	114	17	0	158	25	135	19	0	179	34	102	18	0	154	703
Total Volume	81	511	158	0	750	125	416	73	0	614	106	583	102	0	791	128	424	65	0	617	2772
% App. Total	10.8	68.1	21.1	0		20.4	67.8	11.9	0		13.4	73.7	12.9	0		20.7	68.7	10.5	0		
PHF	.723	.869	.775	.000	.884	.893	.912	.730	.000	.903	.828	.911	.750	.000	.911	.941	.964	.903	.000	.995	.969



# CITY TRAFFIC COUNTERS

626.991.7522

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File Name : pacific\_wilson

Site Code : 00000000

Start Date : 8/28/2014

Page No : 1

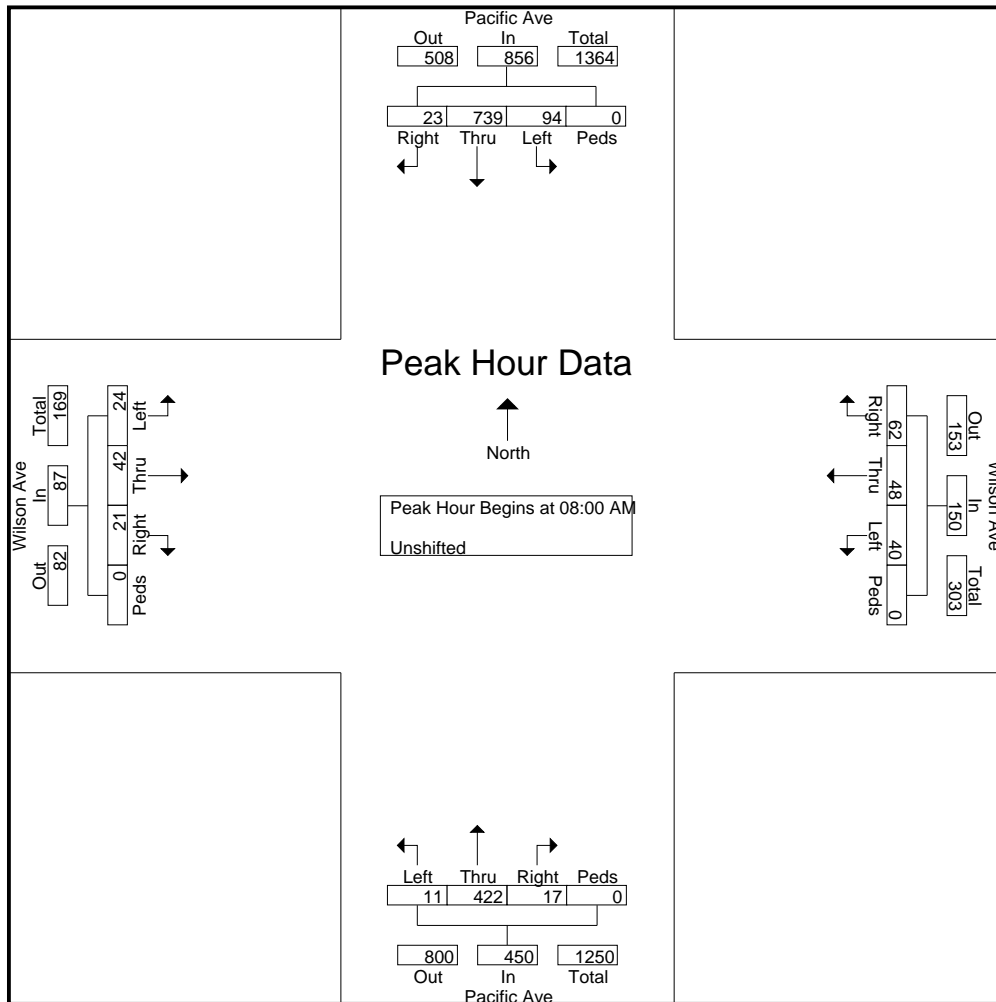
## Groups Printed- Unshifted

Start Time	Pacific Ave Southbound				Wilson Ave Westbound				Pacific Ave Northbound				Wilson Ave Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00 AM	13	106	4	0	6	5	14	0	3	40	3	0	2	5	3	0	204
07:15 AM	15	130	8	0	3	10	10	0	5	76	3	0	4	7	3	0	274
07:30 AM	10	136	2	0	5	7	14	0	3	77	4	0	2	8	8	0	276
07:45 AM	13	162	3	0	9	11	13	0	3	89	2	0	4	9	4	0	322
Total	51	534	17	0	23	33	51	0	14	282	12	0	12	29	18	0	1076
08:00 AM	24	168	6	0	12	13	17	0	2	112	6	0	7	9	6	0	382
08:15 AM	31	201	2	0	11	15	17	0	2	101	3	0	2	12	4	0	401
08:30 AM	23	188	5	0	7	12	15	0	7	91	4	0	6	7	6	0	371
08:45 AM	16	182	10	0	10	8	13	0	0	118	4	0	9	14	5	0	389
Total	94	739	23	0	40	48	62	0	11	422	17	0	24	42	21	0	1543
04:00 PM	13	140	1	0	5	15	18	0	10	191	9	0	2	9	6	0	419
04:15 PM	10	149	2	0	10	15	22	0	4	170	16	0	2	11	9	0	420
04:30 PM	15	153	6	0	2	21	20	0	5	186	6	0	5	18	5	0	442
04:45 PM	16	172	8	0	9	18	22	0	5	207	6	0	7	14	3	0	487
Total	54	614	17	0	26	69	82	0	24	754	37	0	16	52	23	0	1768
05:00 PM	19	166	5	0	11	27	24	0	11	228	10	0	6	18	8	0	533
05:15 PM	11	171	2	0	14	23	21	0	9	216	10	0	4	19	4	0	504
05:30 PM	19	175	6	0	9	14	28	0	3	238	15	0	11	15	11	0	544
05:45 PM	23	183	2	0	11	19	18	0	3	192	12	0	2	20	13	0	498
Total	72	695	15	0	45	83	91	0	26	874	47	0	23	72	36	0	2079
Grand Total	271	2582	72	0	134	233	286	0	75	2332	113	0	75	195	98	0	6466
Apprch %	9.3	88.3	2.5	0	20.5	35.7	43.8	0	3	92.5	4.5	0	20.4	53	26.6	0	
Total %	4.2	39.9	1.1	0	2.1	3.6	4.4	0	1.2	36.1	1.7	0	1.2	3	1.5	0	

**CITY TRAFFIC COUNTERS**  
 626.991.7522  
 www.ctcounters.com

File Name : pacific\_wilson  
 Site Code : 00000000  
 Start Date : 8/28/2014  
 Page No : 2

Start Time	Pacific Ave Southbound					Wilson Ave Westbound					Pacific Ave Northbound					Wilson Ave Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	24	168	6	0	198	12	13	17	0	42	2	112	6	0	120	7	9	6	0	22	382
08:15 AM	31	201	2	0	234	11	15	17	0	43	2	101	3	0	106	2	12	4	0	18	401
08:30 AM	23	188	5	0	216	7	12	15	0	34	7	91	4	0	102	6	7	6	0	19	371
08:45 AM	16	182	10	0	208	10	8	13	0	31	0	118	4	0	122	9	14	5	0	28	389
Total Volume	94	739	23	0	856	40	48	62	0	150	11	422	17	0	450	24	42	21	0	87	1543
% App. Total	11	86.3	2.7	0		26.7	32	41.3	0		2.4	93.8	3.8	0		27.6	48.3	24.1	0		
PHF	.758	.919	.575	.000	.915	.833	.800	.912	.000	.872	.393	.894	.708	.000	.922	.667	.750	.875	.000	.777	.962





# CITY TRAFFIC COUNTERS

626.991.7522

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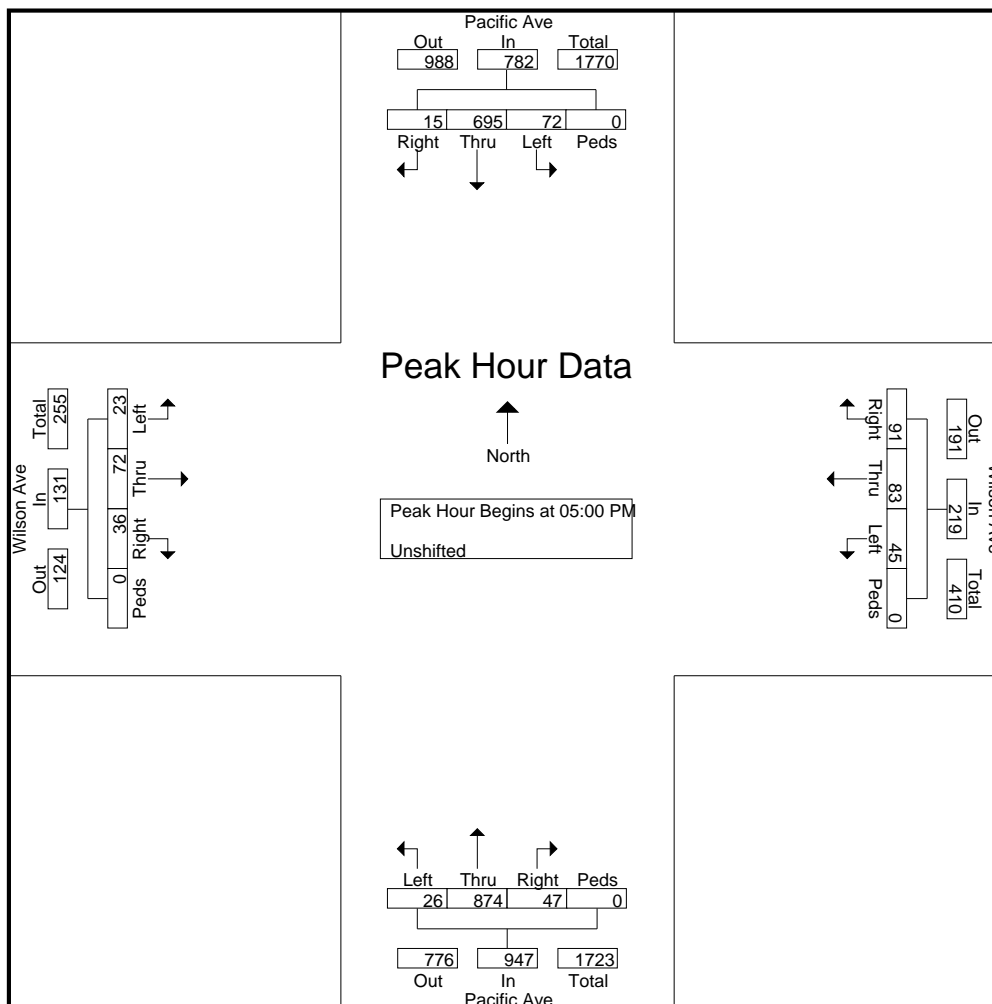
File Name : pacific\_wilson

Site Code : 00000000

Start Date : 8/28/2014

Page No : 3

Start Time	Pacific Ave Southbound					Wilson Ave Westbound					Pacific Ave Northbound					Wilson Ave Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	19	166	5	0	190	11	27	24	0	62	11	228	10	0	249	6	18	8	0	32	533
05:15 PM	11	171	2	0	184	14	23	21	0	58	9	216	10	0	235	4	19	4	0	27	504
05:30 PM	19	175	6	0	200	9	14	28	0	51	3	238	15	0	256	11	15	11	0	37	544
05:45 PM	23	183	2	0	208	11	19	18	0	48	3	192	12	0	207	2	20	13	0	35	498
Total Volume	72	695	15	0	782	45	83	91	0	219	26	874	47	0	947	23	72	36	0	131	2079
% App. Total	9.2	88.9	1.9	0		20.5	37.9	41.6	0		2.7	92.3	5	0		17.6	55	27.5	0		
PHF	.783	.949	.625	.000	.940	.804	.769	.813	.000	.883	.591	.918	.783	.000	.925	.523	.900	.692	.000	.885	.955



**CITY TRAFFIC COUNTERS**  
**626.991.7522**  
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Wilson Ave  
 Bt Kenilworth & Pacific

Start Time	28-Aug-14 Thu	East		Hour Totals		West		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		2	19			5	21				
12:15		2	19			5	25				
12:30		4	22			2	21				
12:45		1	19	9	79	2	26	14	93	23	172
01:00		2	15			3	16				
01:15		1	30			2	28				
01:30		2	20			1	23				
01:45		1	30	6	95	1	22	7	89	13	184
02:00		3	17			2	18				
02:15		0	20			0	22				
02:30		0	22			3	14				
02:45		0	19	3	78	1	18	6	72	9	150
03:00		0	19			1	22				
03:15		0	26			1	16				
03:30		2	23			0	14				
03:45		1	26	3	94	0	20	2	72	5	166
04:00		1	15			1	22				
04:15		1	29			0	25				
04:30		0	23			1	33				
04:45		1	25	3	92	2	34	4	114	7	206
05:00		2	28			2	39				
05:15		1	27			1	31				
05:30		2	38			5	28				
05:45		0	34	5	127	3	22	11	120	16	247
06:00		5	41			3	18				
06:15		6	35			10	21				
06:30		8	22			5	30				
06:45		10	34	29	132	6	24	24	93	53	225
07:00		10	18			11	28				
07:15		12	21			24	19				
07:30		17	17			14	14				
07:45		18	25	57	81	18	15	67	76	124	157
08:00		19	18			20	17				
08:15		16	16			18	14				
08:30		18	16			19	16				
08:45		22	11	75	61	18	16	75	63	150	124
09:00		20	12			19	16				
09:15		15	10			12	17				
09:30		13	16			12	20				
09:45		17	10	65	48	20	12	63	65	128	113
10:00		18	8			10	15				
10:15		11	4			19	8				
10:30		17	5			24	6				
10:45		23	13	69	30	16	13	69	42	138	72
11:00		25	1			27	9				
11:15		18	1			16	5				
11:30		23	8			18	10				
11:45		22	2	88	12	18	6	79	30	167	42
Total		412	929			421	929			833	1858
Percent		30.7%	69.3%			31.2%	68.8%			31.0%	69.0%
Grand Total		412	929			421	929			833	1858
Percent		30.7%	69.3%			31.2%	68.8%			31.0%	69.0%
ADT		ADT 2,691		AADT 2,691							

# ITM Peak Hour Summary

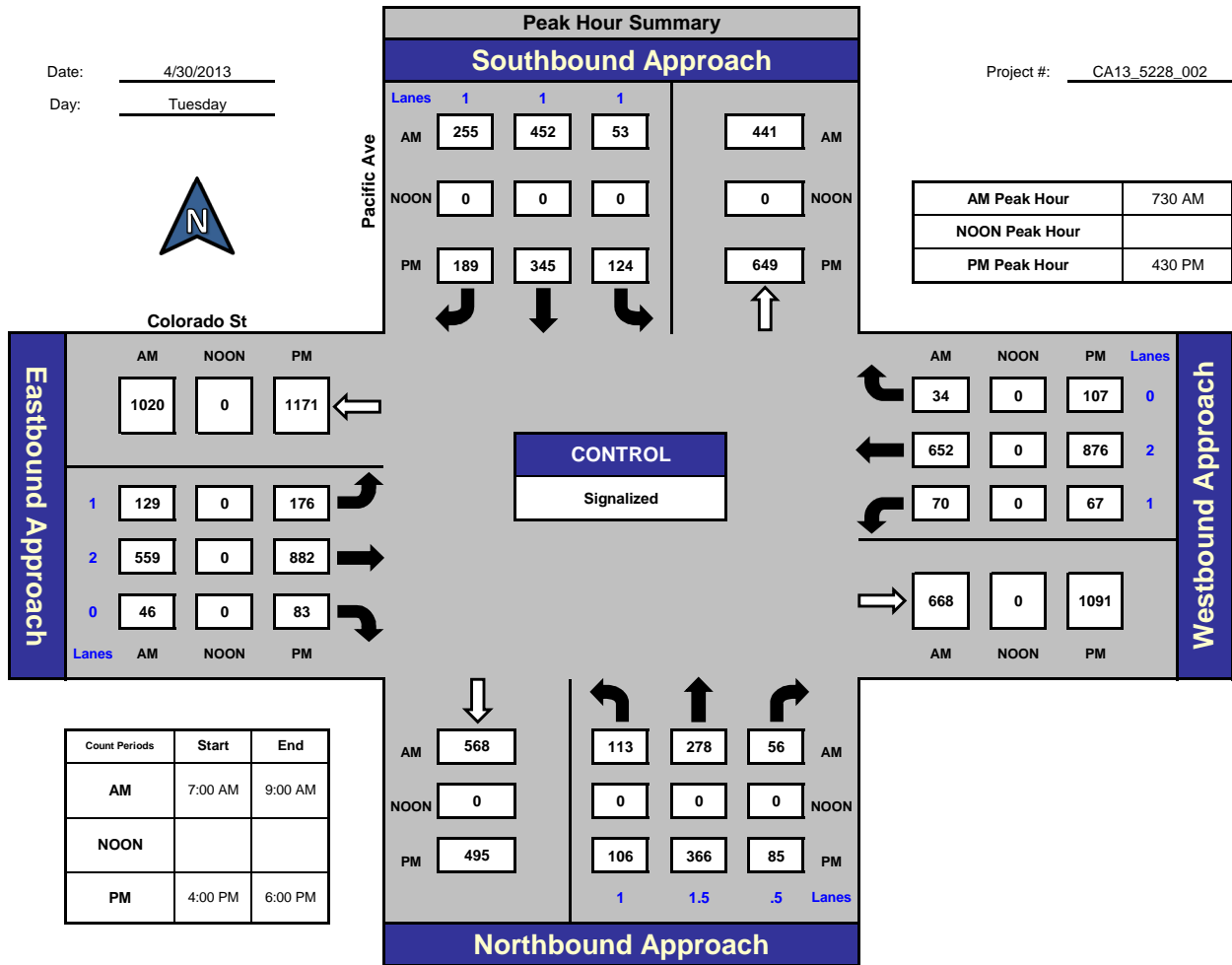


Prepared by:  
National Data & Surveying Services

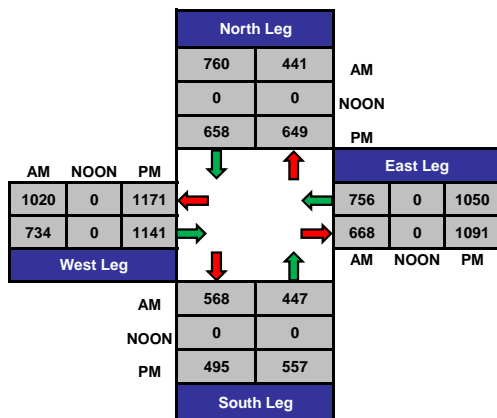
## Pacific Ave and Colorado St, City of Glendale

Date: 4/30/2013  
Day: Tuesday

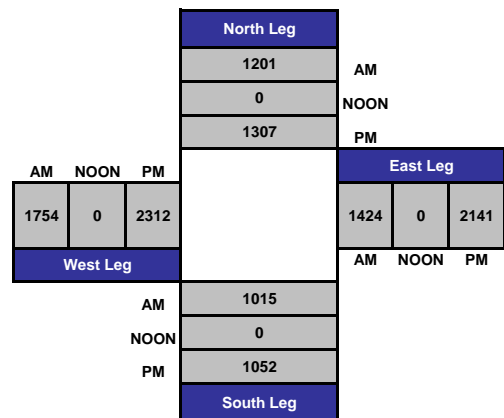
Project #: CA13\_5228\_002



### Total Ins & Outs



### Total Volume Per Leg



# Intersection Turning Movement

Prepared by:

## National Data & Surveying Services

Project ID: CA13\_5228\_002

Day: TUESDAY

City: City of Glendale

Date: 4/30/2013

AM

NS/EW Streets:	Pacific Ave			Pacific Ave			Colorado St			Colorado St			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1.5	.5	1	1	1	1	2	0	1	2	0	
7:00 AM	25	40	11	12	60	68	34	98	6	14	103	4	475
7:15 AM	29	45	6	14	99	77	21	110	5	16	129	5	556
7:30 AM	28	75	15	11	105	64	24	127	11	20	163	8	651
7:45 AM	32	79	18	11	133	50	40	156	21	27	157	10	734
8:00 AM	27	80	18	15	96	64	34	159	6	13	184	6	702
8:15 AM	26	44	5	16	118	77	31	117	8	10	148	10	610
8:30 AM	26	49	5	28	96	39	33	153	8	5	154	9	605
8:45 AM	26	36	13	27	91	27	43	164	10	10	148	6	601
<b>TOTAL VOLUMES :</b>	219	448	91	134	798	466	260	1084	75	115	1186	58	4934
<b>APPROACH %'s :</b>	28.89%	59.10%	12.01%	9.59%	57.08%	33.33%	18.32%	76.39%	5.29%	8.46%	87.27%	4.27%	
<b>PEAK HR START TIME :</b>	730 AM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	113	278	56	53	452	255	129	559	46	70	652	34	2697
<b>PEAK HR FACTOR :</b>	0.866			0.900			0.846			0.931			0.919

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

**National Data & Surveying Services**

Project ID: CA13\_5228\_002

Day: TUESDAY

City: City of Glendale

Date: 4/30/2013

PM

NS/EW Streets:	Pacific Ave			Pacific Ave			Colorado St			Colorado St			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1.5	.5	1	1	1	1	2	0	1	2	0	
4:00 PM	23	84	22	32	64	40	47	209	9	23	225	21	799
4:15 PM	19	78	11	29	64	29	47	211	12	13	210	21	744
4:30 PM	22	74	25	31	75	41	43	217	23	15	227	26	819
4:45 PM	21	97	22	32	86	50	47	208	18	20	201	27	829
5:00 PM	30	86	22	33	98	44	45	235	26	17	251	33	920
5:15 PM	33	109	16	28	86	54	41	222	16	15	197	21	838
5:30 PM	23	70	10	25	83	39	60	221	13	17	202	21	784
5:45 PM	21	77	13	41	69	37	54	228	18	17	232	22	829
<b>TOTAL VOLUMES :</b>	192	675	141	251	625	334	384	1751	135	137	1745	192	6562
<b>APPROACH %'s :</b>	19.05%	66.96%	13.99%	20.74%	51.65%	27.60%	16.92%	77.14%	5.95%	6.61%	84.14%	9.26%	
<b>PEAK HR START TIME :</b>	430 PM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	106	366	85	124	345	189	176	882	83	67	876	107	3406
<b>PEAK HR FACTOR :</b>	0.881			0.940			0.932			0.872			0.926

CONTROL : Signalized

## Appendix B

### Level of Service Worksheets

**Intersection Level Of Service Report  
#1: Pacific & Broadway**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.407

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	39	341	82	123	569	42	24	146	40	75	148	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	39	341	82	123	569	42	24	146	40	75	148	49
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	85	21	31	142	11	6	37	10	19	37	12
Total Analysis Volume [veh/h]	39	341	82	123	569	42	24	146	40	75	148	49
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	A
Intersection V/C	0.407



**Intersection Level Of Service Report  
#2: Broadway & Kenilworth**

Control Type: Two-way stop  
 Analysis Method: HCM2010  
 Analysis Period: 15 minutes

Delay (sec / veh): 10.7  
 Level Of Service: B  
 Volume to Capacity (v/c): 0.009

**Intersection Setup**

Name	Southbound		Eastbound		Westbound	
Approach						
Lane Configuration	↔		↕		↕↔	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	yes		yes		yes	

**Volumes**

Name	Southbound		Eastbound		Westbound	
Base Volume Input [veh/h]	6	11	1	225	210	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	11	1	225	210	6
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	3	0	56	53	2
Total Analysis Volume [veh/h]	6	11	1	225	210	6
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	no		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	no		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.71	8.99	7.67	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.07	0.07	0.27	0.14	0.00	0.00
95th-Percentile Queue Length [ft]	1.63	1.63	6.83	3.42	0.00	0.00
d_A, Approach Delay [s/veh]	9.60		0.03		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.37					
Intersection LOS	B					

**Intersection Level Of Service Report  
#3: Broadway & San Fernando**

Control Type: Signalized  
 Analysis Method: ICU1  
 Analysis Period: 15 minutes

Delay (sec / veh): -  
 Level Of Service: A  
 Volume to Capacity (v/c): 0.589

**Intersection Setup**

Name	Northbound			Eastbound			Westbound			Southeastbound		
Approach	Northbound			Eastbound			Westbound			Southeastbound		
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Eastbound			Westbound			Southeastbound		
Base Volume Input [veh/h]	57	622	77	36	51	38	146	105	89	88	1057	123
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	622	77	36	51	38	146	105	89	88	1057	123
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	156	19	9	13	10	37	26	22	22	264	31
Total Analysis Volume [veh/h]	57	622	77	36	51	38	146	105	89	88	1057	123
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	A
Intersection V/C	0.589

**Intersection Level Of Service Report  
#4: Broadway & Central**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.384

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach												
Lane Configuration	↵ ↑ ↑			↵ ↑ ↑			↵ ↑			↵ ↑		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	18	347	67	96	407	62	59	235	28	63	270	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	347	67	96	407	62	59	235	28	63	270	53
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	87	17	24	102	16	15	59	7	16	68	13
Total Analysis Volume [veh/h]	18	347	67	96	407	62	59	235	28	63	270	53
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-





**Movement, Approach, & Intersection Results**

Intersection LOS	A
Intersection V/C	0.384

**Intersection Level Of Service Report  
#5: Pacific & Wilson**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.429

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	11	422	17	94	739	23	24	42	21	40	48	62
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	422	17	94	739	23	24	42	21	40	48	62
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	106	4	24	185	6	6	11	5	10	12	16
Total Analysis Volume [veh/h]	11	422	17	94	739	23	24	42	21	40	48	62
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	A
Intersection V/C	0.429



**Intersection Level Of Service Report  
#6: Pacific & Colorado**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.761

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	115	284	57	54	461	260	132	570	47	71	665	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	115	284	57	54	461	260	132	570	47	71	665	35
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	29	71	14	14	115	65	33	143	12	18	166	9
Total Analysis Volume [veh/h]	115	284	57	54	461	260	132	570	47	71	665	35
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	C
Intersection V/C	0.761

**Intersection Level Of Service Report  
#1: Pacific & Broadway**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.418

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	39	341	82	123	569	42	24	146	40	75	148	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	1	0	2	1	0	0	17	11	0	3	1
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	41	342	82	125	570	42	24	163	51	75	151	50
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	86	21	31	143	11	6	41	13	19	38	13
Total Analysis Volume [veh/h]	41	342	82	125	570	42	24	163	51	75	151	50
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-




**Movement, Approach, & Intersection Results**

Intersection LOS	A
Intersection V/C	0.418

**Intersection Level Of Service Report  
#2: Broadway & Kenilworth**

Control Type:	Two-way stop	Delay (sec / veh):	11.1
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.054

**Intersection Setup**

Name	Southbound		Eastbound		Westbound	
Approach						
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	yes		yes		yes	

**Volumes**

Name	Southbound		Eastbound		Westbound	
Base Volume Input [veh/h]	6	11	1	225	210	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	28	11	1	1	1	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	22	2	226	211	10
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	6	1	57	53	3
Total Analysis Volume [veh/h]	34	22	2	226	211	10
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	no		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	no		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.05	0.02	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.08	9.32	7.68	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.25	0.25	0.28	0.14	0.00	0.00
95th-Percentile Queue Length [ft]	6.27	6.27	6.93	3.47	0.00	0.00
d_A, Approach Delay [s/veh]	10.39		0.07		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.18					
Intersection LOS	B					

**Intersection Level Of Service Report  
#3: Broadway & San Fernando**

Control Type: Signalized  
Analysis Method: ICU1  
Analysis Period: 15 minutes

Delay (sec / veh): -  
Level Of Service: A  
Volume to Capacity (v/c): 0.593

**Intersection Setup**

Name	Northbound			Eastbound			Westbound			Southeastbound		
Approach												
Lane Configuration	TTT			TTT			TTT			TTT		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Eastbound			Westbound			Southeastbound		
Base Volume Input [veh/h]	57	622	77	36	51	38	146	105	89	88	1057	123
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	1	0	0	0	6	0	6	1	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	622	78	36	51	38	152	105	95	89	1057	123
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	156	20	9	13	10	38	26	24	22	264	31
Total Analysis Volume [veh/h]	57	622	78	36	51	38	152	105	95	89	1057	123
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	A
Intersection V/C	0.593



**Intersection Level Of Service Report  
#4: Broadway & Central**

Control Type: Signalized  
Analysis Method: ICU1  
Analysis Period: 15 minutes

Delay (sec / veh): -  
Level Of Service: A  
Volume to Capacity (v/c): 0.385

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach												
Lane Configuration	↵ ↑ ↑			↵ ↑ ↑			↵ ↑			↵ ↑		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	18	347	67	96	407	62	59	235	28	63	270	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	19	0	0	4	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	347	67	96	407	62	59	254	28	63	274	53
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	87	17	24	102	16	15	64	7	16	69	13
Total Analysis Volume [veh/h]	18	347	67	96	407	62	59	254	28	63	274	53
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	A
Intersection V/C	0.385

**Intersection Level Of Service Report  
#5: Pacific & Wilson**

Control Type: Signalized  
Analysis Method: ICU1  
Analysis Period: 15 minutes

Delay (sec / veh): -  
Level Of Service: A  
Volume to Capacity (v/c): 0.441

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			+			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	11	422	17	94	739	23	24	42	21	40	48	62
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	0	0	1	3	17	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	424	17	94	740	26	41	42	21	40	48	62
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	106	4	24	185	7	10	11	5	10	12	16
Total Analysis Volume [veh/h]	11	424	17	94	740	26	41	42	21	40	48	62
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	A
Intersection V/C	0.441

**Intersection Level Of Service Report  
#6: Pacific & Colorado**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.766

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	115	284	57	54	461	260	132	570	47	71	665	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	1	0	0	6	6	1	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	115	285	57	54	467	266	133	570	47	71	665	35
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	29	71	14	14	117	67	33	143	12	18	166	9
Total Analysis Volume [veh/h]	115	285	57	54	467	266	133	570	47	71	665	35
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	C
Intersection V/C	0.766

**Intersection Level Of Service Report  
#1: Pacific & Broadway**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.427

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	39	341	82	123	569	42	24	146	40	75	148	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	5	10	1	1	6	4	1	1	1	12	4	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	358	85	126	586	47	25	150	42	89	155	50
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	90	21	32	147	12	6	38	11	22	39	13
Total Analysis Volume [veh/h]	45	358	85	126	586	47	25	150	42	89	155	50
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**




Intersection LOS	A
Intersection V/C	0.427



**Intersection Level Of Service Report  
#2: Broadway & Kenilworth**

Control Type:	Two-way stop	Delay (sec / veh):	10.9
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.010

**Intersection Setup**

Name	Southbound		Eastbound		Westbound	
Approach						
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	yes		yes		yes	

**Volumes**

Name	Southbound		Eastbound		Westbound	
Base Volume Input [veh/h]	6	11	1	225	210	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	0	0	0	3	15	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	11	1	233	229	6
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	3	0	58	57	2
Total Analysis Volume [veh/h]	6	11	1	233	229	6
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	no		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	no		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.91	9.05	7.71	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.07	0.07	0.29	0.14	0.00	0.00
95th-Percentile Queue Length [ft]	1.67	1.67	7.22	3.61	0.00	0.00
d_A, Approach Delay [s/veh]	9.70		0.03		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.36					
Intersection LOS	B					

**Intersection Level Of Service Report  
#3: Broadway & San Fernando**

Control Type: Signalized  
Analysis Method: ICU1  
Analysis Period: 15 minutes

Delay (sec / veh): -  
Level Of Service: B  
Volume to Capacity (v/c): 0.601

**Intersection Setup**

Name	Northbound			Eastbound			Westbound			Southeastbound		
Approach												
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Eastbound			Westbound			Southeastbound		
Base Volume Input [veh/h]	57	622	77	36	51	38	146	105	89	88	1057	123
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	0	23	0	0	0	0	0	0	0	0	8	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	58	657	79	37	52	39	149	107	91	90	1086	125
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	164	20	9	13	10	37	27	23	23	272	31
Total Analysis Volume [veh/h]	58	657	79	37	52	39	149	107	91	90	1086	125
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**





Intersection LOS	B
Intersection V/C	0.601

**Intersection Level Of Service Report  
#4: Broadway & Central**

Control Type: Signalized  
Analysis Method: ICU1  
Analysis Period: 15 minutes

Delay (sec / veh): -  
Level Of Service: A  
Volume to Capacity (v/c): 0.435

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	18	347	67	96	407	62	59	235	28	63	270	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	0	38	0	43	140	23	4	4	0	0	10	17
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	392	68	141	555	86	64	244	29	64	285	71
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	98	17	35	139	22	16	61	7	16	71	18
Total Analysis Volume [veh/h]	18	392	68	141	555	86	64	244	29	64	285	71
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-





**Movement, Approach, & Intersection Results**

Intersection LOS	A
Intersection V/C	0.435

**Intersection Level Of Service Report  
#5: Pacific & Wilson**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.444

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	11	422	17	94	739	23	24	42	21	40	48	62
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	0	11	0	2	11	0	0	0	0	0	0	9
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	441	17	98	765	23	24	43	21	41	49	72
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	110	4	25	191	6	6	11	5	10	12	18
Total Analysis Volume [veh/h]	11	441	17	98	765	23	24	43	21	41	49	72
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	A
Intersection V/C	0.444



**Intersection Level Of Service Report  
#6: Pacific & Colorado**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.836

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	115	284	57	54	461	260	132	570	47	71	665	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	4	11	2	0	12	6	5	85	6	1	156	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	121	301	60	55	482	271	140	666	54	73	834	36
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	75	15	14	121	68	35	167	14	18	209	9
Total Analysis Volume [veh/h]	121	301	60	55	482	271	140	666	54	73	834	36
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	D
Intersection V/C	0.836

**Intersection Level Of Service Report  
#1: Pacific & Broadway**

Control Type: Signalized  
Analysis Method: ICU1  
Analysis Period: 15 minutes

Delay (sec / veh): -  
Level Of Service: A  
Volume to Capacity (v/c): 0.437

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	39	341	82	123	569	42	24	146	40	75	148	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	5	10	1	1	6	4	1	1	1	12	4	0
Site-Generated Trips [veh/h]	2	1	0	2	1	0	0	17	11	0	3	1
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	359	85	128	587	47	25	167	53	89	158	51
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	90	21	32	147	12	6	42	13	22	40	13
Total Analysis Volume [veh/h]	47	359	85	128	587	47	25	167	53	89	158	51
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-




**Movement, Approach, & Intersection Results**

Intersection LOS	A
Intersection V/C	0.437

**Intersection Level Of Service Report  
#2: Broadway & Kenilworth**

Control Type:	Two-way stop	Delay (sec / veh):	11.3
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.055

**Intersection Setup**

Name	Southbound		Eastbound		Westbound	
Approach						
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	yes		yes		yes	

**Volumes**

Name	Southbound		Eastbound		Westbound	
Base Volume Input [veh/h]	6	11	1	225	210	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	0	0	0	3	15	0
Site-Generated Trips [veh/h]	28	11	1	1	1	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	22	2	234	230	10
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	6	1	59	58	3
Total Analysis Volume [veh/h]	34	22	2	234	230	10
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	no		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	no		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.06	0.02	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.30	9.40	7.72	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.26	0.26	0.29	0.15	0.00	0.00
95th-Percentile Queue Length [ft]	6.46	6.46	7.33	3.66	0.00	0.00
d_A, Approach Delay [s/veh]	10.55		0.07		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.14					
Intersection LOS	B					

**Intersection Level Of Service Report  
#3: Broadway & San Fernando**

Control Type: Signalized  
Analysis Method: ICU1  
Analysis Period: 15 minutes

Delay (sec / veh): -  
Level Of Service: B  
Volume to Capacity (v/c): 0.608

**Intersection Setup**

Name	Northbound			Eastbound			Westbound			Southeastbound		
Approach												
Lane Configuration	TTT			TTT			TTT			TTT		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Eastbound			Westbound			Southeastbound		
Base Volume Input [veh/h]	57	622	77	36	51	38	146	105	89	88	1057	123
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	0	23	0	0	8	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	1	0	0	0	6	0	6	1	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	58	657	80	37	60	39	155	107	97	91	1078	125
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	164	20	9	15	10	39	27	24	23	270	31
Total Analysis Volume [veh/h]	58	657	80	37	60	39	155	107	97	91	1078	125
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	B
Intersection V/C	0.608



**Intersection Level Of Service Report  
#4: Broadway & Central**

Control Type: Signalized  
Analysis Method: ICU1  
Analysis Period: 15 minutes

Delay (sec / veh): -  
Level Of Service: A  
Volume to Capacity (v/c): 0.436

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	18	347	67	96	407	62	59	235	28	63	270	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	0	38	0	43	140	23	4	4	0	0	10	17
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	19	0	0	4	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	392	68	141	555	86	64	263	29	64	289	71
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	98	17	35	139	22	16	66	7	16	72	18
Total Analysis Volume [veh/h]	18	392	68	141	555	86	64	263	29	64	289	71
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	A
Intersection V/C	0.436

**Intersection Level Of Service Report  
#5: Pacific & Wilson**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.456

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			+			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	11	422	17	94	739	23	24	42	21	40	48	62
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	0	11	0	2	11	0	0	0	0	0	0	9
Site-Generated Trips [veh/h]	0	2	0	0	1	3	17	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	443	17	98	766	26	41	43	21	41	49	72
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	111	4	25	192	7	10	11	5	10	12	18
Total Analysis Volume [veh/h]	11	443	17	98	766	26	41	43	21	41	49	72
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	A
Intersection V/C	0.456

**Intersection Level Of Service Report  
#6: Pacific & Colorado**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.841

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	115	284	57	54	461	260	132	570	47	71	665	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	4	11	2	0	12	6	5	85	6	1	156	0
Site-Generated Trips [veh/h]	0	1	0	0	6	6	1	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	121	302	60	55	488	277	141	666	54	73	834	36
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	76	15	14	122	69	35	167	14	18	209	9
Total Analysis Volume [veh/h]	121	302	60	55	488	277	141	666	54	73	834	36
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	D
Intersection V/C	0.841

**Intersection Level Of Service Report  
#1: Pacific & Broadway**

Control Type: Signalized  
 Analysis Method: ICU1  
 Analysis Period: 15 minutes

Delay (sec / veh): -  
 Level Of Service: A  
 Volume to Capacity (v/c): 0.596

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	31	582	106	139	524	44	57	235	69	144	199	307
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	31	582	106	139	524	44	57	235	69	144	199	307
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	146	27	35	131	11	14	59	17	36	50	77
Total Analysis Volume [veh/h]	31	582	106	139	524	44	57	235	69	144	199	307
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	A
Intersection V/C	0.596



**Intersection Level Of Service Report  
#2: Broadway & Kenilworth**

Control Type:	Two-way stop	Delay (sec / veh):	12.4
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

**Intersection Setup**

Name	Southbound		Eastbound		Westbound	
Approach						
Lane Configuration	↵		↵↵		↵↵	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	yes		yes		yes	

**Volumes**

Name	Southbound		Eastbound		Westbound	
Base Volume Input [veh/h]	3	7	17	381	266	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	7	17	381	266	15
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	2	4	95	67	4
Total Analysis Volume [veh/h]	3	7	17	381	266	15
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	no		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	no		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.01	0.01	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.38	9.15	7.85	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.04	0.04	0.55	0.28	0.00	0.00
95th-Percentile Queue Length [ft]	1.07	1.07	13.77	6.88	0.00	0.00
d_A, Approach Delay [s/veh]	10.12		0.34		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.34					
Intersection LOS	B					

**Intersection Level Of Service Report  
#3: Broadway & San Fernando**

Control Type: Signalized  
 Analysis Method: ICU1  
 Analysis Period: 15 minutes

Delay (sec / veh): -  
 Level Of Service: C  
 Volume to Capacity (v/c): 0.776

**Intersection Setup**

Name	Northbound			Eastbound			Westbound			Southeastbound		
Approach	Northbound			Eastbound			Westbound			Southeastbound		
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Eastbound			Westbound			Southeastbound		
Base Volume Input [veh/h]	39	1084	145	77	113	48	123	61	186	204	1034	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	39	1084	145	77	113	48	123	61	186	204	1034	50
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	271	36	19	28	12	31	15	47	51	259	13
Total Analysis Volume [veh/h]	39	1084	145	77	113	48	123	61	186	204	1034	50
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-





**Movement, Approach, & Intersection Results**

Intersection LOS	C
Intersection V/C	0.776

**Intersection Level Of Service Report  
#4: Broadway & Central**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.538

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach												
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	106	583	102	81	511	158	128	424	65	125	416	73
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	106	583	102	81	511	158	128	424	65	125	416	73
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	146	26	20	128	40	32	106	16	31	104	18
Total Analysis Volume [veh/h]	106	583	102	81	511	158	128	424	65	125	416	73
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	A
Intersection V/C	0.538

**Intersection Level Of Service Report  
#5: Pacific & Wilson**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.556

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			+			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	26	874	47	72	695	15	23	72	36	45	83	91
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	874	47	72	695	15	23	72	36	45	83	91
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	219	12	18	174	4	6	18	9	11	21	23
Total Analysis Volume [veh/h]	26	874	47	72	695	15	23	72	36	45	83	91
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	A
Intersection V/C	0.556



**Intersection Level Of Service Report  
#6: Pacific & Colorado**

Control Type: Signalized  
 Analysis Method: ICU1  
 Analysis Period: 15 minutes

Delay (sec / veh): -  
 Level Of Service: D  
 Volume to Capacity (v/c): 0.813

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	108	373	87	126	352	193	180	900	85	68	894	109
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	108	373	87	126	352	193	180	900	85	68	894	109
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	93	22	32	88	48	45	225	21	17	224	27
Total Analysis Volume [veh/h]	108	373	87	126	352	193	180	900	85	68	894	109
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	D
Intersection V/C	0.813

**Intersection Level Of Service Report  
#1: Pacific & Broadway**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.603

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	31	582	106	139	524	44	57	235	69	144	199	307
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	2	0	5	3	0	0	5	3	0	15	4
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	41	584	106	144	527	44	57	240	72	144	214	311
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	146	27	36	132	11	14	60	18	36	54	78
Total Analysis Volume [veh/h]	41	584	106	144	527	44	57	240	72	144	214	311
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-




**Movement, Approach, & Intersection Results**

Intersection LOS	B
Intersection V/C	0.603

**Intersection Level Of Service Report  
#2: Broadway & Kenilworth**

Control Type:	Two-way stop	Delay (sec / veh):	12.9
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.023

**Intersection Setup**

Name	Southbound		Eastbound		Westbound	
Approach						
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	yes		yes		yes	

**Volumes**

Name	Southbound		Eastbound		Westbound	
Base Volume Input [veh/h]	3	7	17	381	266	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	3	7	5	3	19
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	10	24	386	269	34
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	6	97	67	9
Total Analysis Volume [veh/h]	11	10	24	386	269	34
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	no		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	no		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.02	0.01	0.02	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.89	9.37	7.93	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.11	0.11	0.58	0.29	0.00	0.00
95th-Percentile Queue Length [ft]	2.71	2.71	14.58	7.29	0.00	0.00
d_A, Approach Delay [s/veh]	11.21		0.46		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.58					
Intersection LOS	B					

**Intersection Level Of Service Report  
#3: Broadway & San Fernando**

Control Type: Signalized  
Analysis Method: ICU1  
Analysis Period: 15 minutes

Delay (sec / veh): -  
Level Of Service: C  
Volume to Capacity (v/c): 0.783

**Intersection Setup**

Name	Northbound			Eastbound			Westbound			Southeastbound		
Approach												
Lane Configuration	TTT			TTT			TTT			TTT		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Eastbound			Westbound			Southeastbound		
Base Volume Input [veh/h]	39	1084	145	77	113	48	123	61	186	204	1034	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	6	0	0	0	3	0	3	6	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	39	1084	151	77	113	48	126	61	189	210	1034	50
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	271	38	19	28	12	32	15	47	53	259	13
Total Analysis Volume [veh/h]	39	1084	151	77	113	48	126	61	189	210	1034	50
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	C
Intersection V/C	0.783



**Intersection Level Of Service Report  
#4: Broadway & Central**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.544

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	106	583	102	81	511	158	128	424	65	125	416	73
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	9	0	0	19	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	106	583	102	81	511	158	128	433	65	125	435	73
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	146	26	20	128	40	32	108	16	31	109	18
Total Analysis Volume [veh/h]	106	583	102	81	511	158	128	433	65	125	435	73
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	A
Intersection V/C	0.544

**Intersection Level Of Service Report  
#5: Pacific & Wilson**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.561

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			+			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	26	874	47	72	695	15	23	72	36	45	83	91
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	5	0	0	8	11	5	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	879	47	72	703	26	28	72	36	45	83	91
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	220	12	18	176	7	7	18	9	11	21	23
Total Analysis Volume [veh/h]	26	879	47	72	703	26	28	72	36	45	83	91
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	A
Intersection V/C	0.561

**Intersection Level Of Service Report  
#6: Pacific & Colorado**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.820

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	108	373	87	126	352	193	180	900	85	68	894	109
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	6	0	0	3	3	7	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	108	379	87	126	355	196	187	900	85	68	894	109
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	95	22	32	89	49	47	225	21	17	224	27
Total Analysis Volume [veh/h]	108	379	87	126	355	196	187	900	85	68	894	109
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	D
Intersection V/C	0.820

**Intersection Level Of Service Report  
#1: Pacific & Broadway**

Control Type: Signalized  
Analysis Method: ICU1  
Analysis Period: 15 minutes

Delay (sec / veh): -  
Level Of Service: B  
Volume to Capacity (v/c): 0.617

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	31	582	106	139	524	44	57	235	69	144	199	307
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	2	24	5	0	13	1	4	4	6	7	1	1
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	618	113	142	547	46	62	244	76	154	204	314
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	155	28	36	137	12	16	61	19	39	51	79
Total Analysis Volume [veh/h]	34	618	113	142	547	46	62	244	76	154	204	314
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**




Intersection LOS	B
Intersection V/C	0.617



**Intersection Level Of Service Report  
#2: Broadway & Kenilworth**

Control Type:	Two-way stop	Delay (sec / veh):	12.6
Analysis Method:	HCM2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

**Intersection Setup**

Name	Southbound		Eastbound		Westbound	
Approach						
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	yes		yes		yes	

**Volumes**

Name	Southbound		Eastbound		Westbound	
Base Volume Input [veh/h]	3	7	17	381	266	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	0	0	0	14	4	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	7	17	403	275	15
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	2	4	101	69	4
Total Analysis Volume [veh/h]	3	7	17	403	275	15
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	no		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	no		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.01	0.01	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.60	9.18	7.88	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.04	0.04	0.59	0.30	0.00	0.00
95th-Percentile Queue Length [ft]	1.08	1.08	14.81	7.41	0.00	0.00
d_A, Approach Delay [s/veh]	10.21		0.32		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.33					
Intersection LOS	B					

**Intersection Level Of Service Report  
#3: Broadway & San Fernando**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.801

**Intersection Setup**

Name	Northbound			Eastbound			Westbound			Southeastbound		
Approach												
Lane Configuration	TTT			TTT			TTT			TTT		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Eastbound			Westbound			Southeastbound		
Base Volume Input [veh/h]	39	1084	145	77	113	48	123	61	186	204	1034	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	0	36	0	0	0	0	0	0	0	0	40	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	1142	148	79	115	49	125	62	190	208	1095	51
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	286	37	20	29	12	31	16	48	52	274	13
Total Analysis Volume [veh/h]	40	1142	148	79	115	49	125	62	190	208	1095	51
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**





Intersection LOS	D
Intersection V/C	0.801

**Intersection Level Of Service Report  
#4: Broadway & Central**

Control Type: Signalized  
Analysis Method: ICU1  
Analysis Period: 15 minutes

Delay (sec / veh): -  
Level Of Service: B  
Volume to Capacity (v/c): 0.613

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	106	583	102	81	511	158	128	424	65	125	416	73
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	0	123	0	29	65	12	28	12	0	0	7	47
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	108	718	104	112	586	173	159	444	66	128	431	121
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	180	26	28	147	43	40	111	17	32	108	30
Total Analysis Volume [veh/h]	108	718	104	112	586	173	159	444	66	128	431	121
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	B
Intersection V/C	0.613

**Intersection Level Of Service Report  
#5: Pacific & Wilson**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.582

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			+			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	26	874	47	72	695	15	23	72	36	45	83	91
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	0	29	0	9	24	0	0	0	0	0	0	4
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	920	48	82	733	15	23	73	37	46	85	97
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	230	12	21	183	4	6	18	9	12	21	24
Total Analysis Volume [veh/h]	27	920	48	82	733	15	23	73	37	46	85	97
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	A
Intersection V/C	0.582



**Intersection Level Of Service Report  
#6: Pacific & Colorado**

Control Type: Signalized  
Analysis Method: ICU1  
Analysis Period: 15 minutes

Delay (sec / veh): -  
Level Of Service: E  
Volume to Capacity (v/c): 0.901

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	↵			↵			↵			↵		
Lane Configuration	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Turning Movement												
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	108	373	87	126	352	193	180	900	85	68	894	109
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	12	11	13	0	17	18	20	173	12	1	135	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	122	391	102	129	376	215	204	1091	99	70	1047	111
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	31	98	26	32	94	54	51	273	25	18	262	28
Total Analysis Volume [veh/h]	122	391	102	129	376	215	204	1091	99	70	1047	111
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	E
Intersection V/C	0.901

**Intersection Level Of Service Report  
#1: Pacific & Broadway**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.623

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	31	582	106	139	524	44	57	235	69	144	199	307
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	2	24	5	0	13	1	4	4	6	7	1	1
Site-Generated Trips [veh/h]	10	2	0	5	3	0	0	5	3	0	15	4
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	620	113	147	550	46	62	249	79	154	219	318
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	155	28	37	138	12	16	62	20	39	55	80
Total Analysis Volume [veh/h]	44	620	113	147	550	46	62	249	79	154	219	318
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**




Intersection LOS	B
Intersection V/C	0.623

**Intersection Level Of Service Report  
#2: Broadway & Kenilworth**

Control Type: Two-way stop  
Analysis Method: HCM2010  
Analysis Period: 15 minutes

Delay (sec / veh): 13.1  
Level Of Service: B  
Volume to Capacity (v/c): 0.024

**Intersection Setup**

Name	Southbound		Eastbound		Westbound	
Approach						
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	yes		yes		yes	

**Volumes**

Name	Southbound		Eastbound		Westbound	
Base Volume Input [veh/h]	3	7	17	381	266	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	0	0	0	14	4	0
Site-Generated Trips [veh/h]	8	3	7	5	3	19
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	10	24	408	278	34
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	6	102	70	9
Total Analysis Volume [veh/h]	11	10	24	408	278	34
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	no		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	no		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.02	0.01	0.02	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	13.14	9.40	7.95	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.11	0.11	0.63	0.31	0.00	0.00
95th-Percentile Queue Length [ft]	2.78	2.78	15.66	7.83	0.00	0.00
d_A, Approach Delay [s/veh]	11.36		0.44		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.56					
Intersection LOS	B					

**Intersection Level Of Service Report  
#3: Broadway & San Fernando**

Control Type: Signalized  
Analysis Method: ICU1  
Analysis Period: 15 minutes

Delay (sec / veh): -  
Level Of Service: D  
Volume to Capacity (v/c): 0.809

**Intersection Setup**

Name	Northbound			Eastbound			Westbound			Southeastbound		
Approach												
Lane Configuration	TTT			TTT			TTT			TTT		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Eastbound			Westbound			Southeastbound		
Base Volume Input [veh/h]	39	1084	145	77	113	48	123	61	186	204	1034	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	0	36	0	0	0	0	0	0	0	0	40	0
Site-Generated Trips [veh/h]	0	0	6	0	0	0	3	0	3	6	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	1142	154	79	115	49	128	62	193	214	1095	51
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	286	39	20	29	12	32	16	48	54	274	13
Total Analysis Volume [veh/h]	40	1142	154	79	115	49	128	62	193	214	1095	51
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	D
Intersection V/C	0.809



**Intersection Level Of Service Report  
#4: Broadway & Central**

Control Type: Signalized  
Analysis Method: ICU1  
Analysis Period: 15 minutes

Delay (sec / veh): -  
Level Of Service: B  
Volume to Capacity (v/c): 0.619

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	106	583	102	81	511	158	128	424	65	125	416	73
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	0	123	0	29	65	12	28	12	0	0	7	47
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	9	0	0	19	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	108	718	104	112	586	173	159	453	66	128	450	121
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	180	26	28	147	43	40	113	17	32	113	30
Total Analysis Volume [veh/h]	108	718	104	112	586	173	159	453	66	128	450	121
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	B
Intersection V/C	0.619

**Intersection Level Of Service Report  
#5: Pacific & Wilson**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.587

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			+			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	26	874	47	72	695	15	23	72	36	45	83	91
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	0	29	0	9	24	0	0	0	0	0	0	4
Site-Generated Trips [veh/h]	0	5	0	0	8	11	5	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	925	48	82	741	26	28	73	37	46	85	97
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	231	12	21	185	7	7	18	9	12	21	24
Total Analysis Volume [veh/h]	27	925	48	82	741	26	28	73	37	46	85	97
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	A
Intersection V/C	0.587

**Intersection Level Of Service Report  
#6: Pacific & Colorado**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU1	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.904

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	↔			↔			↔			↔		
Lane Configuration	↔			↔			↔			↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	yes			yes			yes			yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	108	373	87	126	352	193	180	900	85	68	894	109
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
In-Process Volume [veh/h]	12	11	13	0	12	6	20	173	12	1	135	0
Site-Generated Trips [veh/h]	0	6	0	0	3	3	7	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	122	397	102	129	374	206	211	1091	99	70	1047	111
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	31	99	26	32	94	52	53	273	25	18	262	28
Total Analysis Volume [veh/h]	122	397	102	129	374	206	211	1091	99	70	1047	111
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	1	0	0	1	0	0	1	0	0	0	1	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-	-

**Movement, Approach, & Intersection Results**

Intersection LOS	E
Intersection V/C	0.904

## Appendix C

### Explanation of LOS Categories

## Level of Service (LOS) Descriptions<sup>1</sup>

Level of Service	Description	Volume to Capacity (v/c) Ratio
A	Level of Service A occurs when progression is extremely favorable and vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	0.600 and below
B	Level of Service B generally occurs with good progression and/or short cycle lengths. More vehicles stop than for Level of Service A, causing higher levels of delay.	0.601 to 0.700
C	Level of Service C generally result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level although many still pass through the intersection without stopping.	0.701 to 0.800
D	Level of Service D describes a situation in which the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and/or high traffic volumes as compared to the roadway capacity. Many vehicles are required to stop and the number of vehicle that do not have to stop declines. Individual cycle failures are therefore more noticeable.	0.801 to 0.900
E	Level of Service E is considered to be the limit of acceptable conditions. High delay values generally indicate poor progression, long cycle lengths, and high traffic volumes. Individual cycle failures frequently occur.	0.901 to 1.000
F	Level of Service F is generally considered to be unacceptable to most drivers. This condition often occurs with over-saturation, i.e., when traffic arrives at a flow rate that exceeds the capacity of the intersection.	1.001 and above

<sup>1</sup> Source: Highway Capacity Manual Special Report 209, Transportation Research Board, National Research Council Washington D.C., 2000.