MEETING DATE: **11.12.12**

AGENDA ITEM: Introduction of an Ordinance Amending the Culver City Zoning Map, as referenced in Title 17, Zoning, of the Culver City Municipal Code, Section 17.200.015, establishing Planned Development Zone No. 10 Zoning Code Map Amendment (ZCMA P-2012020) and approving a Comprehensive Plan (CP P-2012018) to allow a commercial development consisting of approximately 41,735 square feet of retail and restaurant uses and 38,732 square feet of office uses located at 8810-8850 Washington Boulevard and 3920 Landmark Street.

ATTACHMENTS

	Pages
1. Proposed Ordinance and Exhibit A, Zone Change Map and Exhibit B, Conditions of Approval	1- 34
2. Planning Commission Resolution No. 2012-P011 (without attachments)	35 - 42
3. Proposed Comprehensive Plan	43 - 168
4. September 12th and October 4th Planning Commission Staff Reports (without attachments)	169 - 192
5. Initial Study/Mitigated Negative Declaration dated August 22, 2012	193 - 221
6. Traffic Analysis prepared by Raju and Associates Inc, dated July 2011 and supplemented on March 2012	222 - 642

ORDINANCE NO. 2012-_____

AN ORDINANCE OF THE CITY OF CULVER CITY, CALIFORNIA, AMENDING THE CULVER CITY ZONING MAP, AS REFERENCED IN TITLE 17, ZONING, OF THE CULVER CITY MUNICIPAL CODE, SECTION 17.200.015, ESTABLISHING PLANNED DEVELOPMENT ZONE NO. 10 AND APPROVING COMPREHENSIVE PLAN, CP-P2012018, CONSISTING OF A COMMERCIAL DEVELOPMENT OF APPROXIMATELY 41,745 SQUARE FEET OF RETAIL AND RESTAURANT USES AND 38,732 SQUARE FEET OF OFFICE USES LOCATED AT 8810-8850 WASHINGTON BOULEVARD AND 3920 LANDMARK STREET IN THE INDUSTRIAL GENERAL (IG) ZONE, AND RELATED ZONING CODE MAP AMENDMENT, ZCMA P-2012020.

(ZCMA P-2012020 AND CP-P2012018)

WHEREAS, on February 29, 2012, Mr. Joseph Miller of the Runyon Group, as the applicant and property owner (the "Applicant") of 8810-8850 Washington Boulevard and 3920 Landmark Street, filed an application for a Comprehensive Plan and Zoning Code Map Amendment for Planned Development District No. 10, consisting of a commercial development of approximately 41,745 square feet of retail and restaurant uses, 38,732 square feet of office uses, and two multi-level parking structures providing a total of 312 parking spaces (the "Project"), the Project site described more fully as Lots 1, 2, 3, portion of 13, and 14 of Tract No. 4757, in the City of Culver City, County of Los Angeles, State of California; and,

WHEREAS, in order to implement the proposed Project, approval of the following applications are required:

1. Zoning Code Map Amendment: For consistency between land use designation and zoning, specifically the zone change of the Project site from the Industrial General (IG) Zone to a Planned Development (PD) Zoning District: and

2. Comprehensive Plan: To ensure the Project is in compliance with all required standards and City ordinances and establish all onsite and offsite conditions of approval to

reflect the site features and compatibility of the proposed Project with the uses on adjoining properties.

WHEREAS, on October 4, 2012, after conducting a duly noticed public hearing (held on September 12, 2012 and continued on October 4, 2012), on the subject applications, including full consideration of the application, plans, staff report, environmental information and all testimony presented, the Planning Commission (i) adopted a Mitigated Negative Declaration, in accordance with the California Environmental Quality Act (CEQA), finding the project, as mitigated, will not result in significant adverse environmental impacts; and (ii) adopted Resolution No. 2012-P011 recommending to the City Council, approval of Zoning Code Map Amendment, ZCMA P-2012020 and Comprehensive Plan, CP-P2012018, (the adopted Mitigated Negative Declaration and Resolution No. 2012-P011 are incorporated by this reference as though fully set forth herein); and,

WHEREAS, on November 12, 2012, after conducting a duly noticed public hearing on the subject application, including full consideration of the application, plans, staff report, environmental information, Planning Commission recommendation, and all testimony presented, the City Council (i) by a vote of ___ to ___, determined that no new information has become available and no changes in the proposed project have been made since the Planning Commission adopted the Mitigated Negative Declaration and, therefore, no additional environmental analysis is required; and (ii) by a vote of ___ to ____ approved Zoning Code Map Amendment, ZCMA P-2012020, for Planned Development Zone No. 10, and Comprehensive Plan, CP-P2012018, as set forth herein below.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF CULVER CITY, CALIFORNIA, RESOLVES AS FOLLOWS:

SECTION 1. Pursuant to the foregoing recitations and the provisions of Culver City Municipal Code (CCMC), the following findings are hereby made:

Zoning Code Map Amendment for Planned Development Zone No. 10:

As outlined in CCMC Title 17, Section 17.620.030.A, the following required findings for a Zoning Code Map Amendment are hereby made:

1. **The proposed amendment ensures and maintains internal consistency with the goals, policies and strategies of all elements of the General Plan and will not create any inconsistencies with this Title, in the case of a Zoning Code Amendment.**

   The proposed Zoning Code Map Amendment for the proposed Project ensures and maintains internal consistency with the goals, policies and strategies of the General Plan. Specifically, the Zoning Code Map Amendment that will change the zoning of the Project site from the IG Zone to PD Zone No. 10 will make the site consistent with the General Plan Land Use "General Corridor" commercial designation. The proposed uses are more consistent with the site's General Plan commercial designation than with the current Industrial General zoning.

   This zone change, which will allow for a Comprehensive Plan for multi-use commercial development consisting of pedestrian oriented ground floor retail and restaurants with outdoor dining; office uses above the retail and/or restaurant spaces; pedestrian friendly open courtyard areas and paseos; as well as enhancements to the streetscape along Washington Boulevard and Landmark Street, will further the goals and objectives as outlined in Objectives 5 through 8, 10 and 12 of the General Plan Land Use Element. The proposed Project will encourage reinvestment in this area thereby improving economic vitality, visual quality, and the pedestrian environment. Currently the Project site consists of several vacant buildings, paved surface level parking lots and a three level above ground parking structure previously used by a car dealership. The proposed Zoning Code Map Amendment for the proposed Project will not result in any inconsistency with the General Plan.

2. **The proposed amendment would not be detrimental to the public interest, health, safety, convenience or welfare of the City.**

   The proposed Zoning Code Map Amendment is not detrimental to the public interest, health, safety, convenience or welfare of the City in that the amendment, and subsequent Project, have been reviewed by City Departments to ensure compliance with all relevant City standards, codes and policies. The proposed zone change from Industrial General to Planned Development to implement the Comprehensive Plan is more compatible and consistent with the General Corridor General Plan Land Use designation. The zone change to Planned Development would focus the types of

uses allowed in the Comprehensive Plan consistent with the goals and objectives of the Commercial District and the Transit Oriented Development (TOD) area as opposed to the Industrial District. This would lessen the impacts to the surrounding area that would otherwise occur with industrial type uses. No health or safety hazards have been identified in the review of this Project.

The Zoning Code Map Amendment will allow for a Comprehensive Plan for a multi-use commercial development that is anticipated to encourage new business, tourists and retail opportunities in the City. Business and commercial opportunities add to the economic vitality that serves the community and protects the quality of life. The Project will be integral to the success of the TOD area that includes proposed mixed use projects because it will support local commercial activity and help in the creation of pedestrian friendly retail opportunities and community gathering spaces. With City approval of the proposed amendment, the Project will be consistent with the objectives of the General Plan Land Use "General Corridor" commercial designation and will be in conformance with the CCMC, including the Zoning Code.

3. The proposed amendment is in compliance with the provisions of the California Environmental Quality Act (CEQA).

The proposed Zoning Code Map Amendment is in compliance with CEQA as more fully detailed in the Project's environmental documentation, including, but not limited to, the Initial Study, Mitigated Negative Declaration and Project traffic study. Potential impacts to various environmental factors as reviewed in the Initial Study will be mitigated through various green building methods that include, where feasible, use of local manufactured products, storm water filtration systems, high rated building insulation, and permeable exterior paving surfaces to reduce storm water run-off. Other sustainable development practices will include photovoltaic electricity generation, low flow fixtures and low consumption urinals, drought tolerant vegetation, green-screen wall systems incorporated into the courtyard landscape design, dual low emissivity glazing, and façade shading elements to reduce solar heat gain. In accordance with CEQA, the Project's greenhouse gas emission impacts were reviewed and found to have a less than significant environmental impact on the surrounding area. Carbon emission reduction procedures have been incorporated into the Project, which include bicycle racks spread throughout the site and bicycle facilities including lockable areas, participation and support of a potential shuttle service that would loop from the Hayden Tract area to the Exposition Light Rail Transit Station to Downtown Culver City, preferred parking for low emission vehicles and carpool vehicles, and sourcing products from local manufacturers when possible.

As outlined in CCMC Title 17, Section 17.620.030.B, the following additional required finding for a Zoning Code Map Amendment is hereby made:

4. The sites are physically suitable (including access, provision of utilities, compatibility with adjoining land uses and absence of physical constraints) for the requested zoning designation(s) and anticipated land use development.

A complete review by City staff has determined that the Project site is in compliance with all applicable design standards and all public services can be provided; therefore, the site is physically suitable (including access, provision of utilities, compatibility with adjoining land uses and absence of physical constraints) for the requested zoning designation and anticipated land use development as outlined in the Comprehensive Plan.

The multi-use commercial development project has been sited and designed to be integral to the Transit Oriented Development (TOD) area and will create a transition from the Exposition Light Rail Transit station, planned mixed use TOD developments and more traditional commercial uses further west toward Downtown Culver City. Commercial uses are located on Washington Boulevard while commercial, light industrial and school uses are located along Landmark Street. The commercial development will fit within this fabric while providing local market, retail, and restaurant opportunities for local residents that will be a part of the planned TOD mixed use projects nearby. The height of the proposed structures and existing structures to remain do not exceed the 56 foot height limit and comply with Zoning Code setback and parking requirements.

Vehicular access to the Project site has been located at physically suitable locations on Landmark Street that are sufficiently distant from Washington Boulevard to avoid impacts on that major arterial. In addition, locating on-site parking access on Landmark Street instead of Washington Boulevard avoids impacts to traffic flow on Washington Boulevard, one of the City's major roadways.

In sum, the proposed use of office, retail, and restaurants is compatible with existing land uses. The site occupies corner to corner parcels with a majority of frontage on Washington Boulevard. This frontage makes the site ideal for a pedestrian facing retail project. The exiting utility services such as water, sewer and gas line are adequate for the proposed uses.

Comprehensive Plan for Planned Development Zoning District No. 10:

As outlined in CCMC Title 17, Section 17.560.020, the following required findings for a Comprehensive Plan are hereby made:

A. The proposed Comprehensive Plan can be substantially completed within four years.

According to the Applicant, the proposed Project is planned and scheduled to be complete within four years (most likely within two years). The Applicant owns the land with no debt and has the capital to build the entire Project. Construction is expected to begin in early 2014 with substantial completion by mid-2014, provided approval of the requested entitlement is granted.

B. The proposed development is capable of creating an environment of sustained desirability and stability or adequate assurance will be provided such objective will be attained.

The proposed development will create an environment of sustained desirability and stability by providing the neighborhood with commercial uses that will serve the surrounding business and residential neighbors. The Hayden Tract, Helms Bakery Complex, and East Washington areas have flourishing office and retail populations, residential communities and dynamic art, food, and design establishments. The proposed Project, consisting of retail, office and dining and community space tie all of these various uses together assuring this area's continued success. The proposed Project will enhance and sustain the desirability and stability of the entire neighborhood.

C. The proposed uses will not be substantially detrimental to present and potential surrounding uses but will have a beneficial effect.

A mix of transportation, industrial and commercial uses currently surround the Project site, including the Exposition Light Rail Transit station, warehousing and distribution facilities, retail and office establishments, a private school, and vacant land (proposed to be a mixed use project with residential and retail uses). The proposed Project uses of office, retail, and restaurants will be compatible with the surrounding areas. The Project site is currently vacant with several empty buildings and paved surface parking lots previously occupied by a car dealership. The proposed Project will have a beneficial effect by developing the site with active uses, new retail and office opportunities, pedestrian friendly open courtyards and paseos and a vibrant and enhanced streetscape.

D. The streets and thoroughfares serving the development are suitable and adequate to carry anticipated traffic and the development will not generate traffic that will overload the adjacent street network.

A comprehensive traffic study has been conducted to determine impacts the Project may have on traffic. The study showed a slight impact on one of the studied intersections and has stipulated a measure that will mitigate this impact to a less than significant level. As a result of this mitigation, the traffic study has determined that the Project will not generate traffic that will overload the adjacent street network. It is also important to note that the proposed Project is served by two major thoroughfares; Washington and National Boulevards. The site is surrounded entirely by commercial uses and does not border any residential neighborhoods.

E. The proposed development is compatible with the surrounding area.

The surrounding area is comprised of commercial and light industrial buildings. The proposed development is entirely commercial and is therefore compatible with the surrounding uses.

F. The types and locations of any proposed commercial development can be economically justified.

The Applicant has invested a significant amount of capital into the Project, thereby committing to develop the site as proposed. As part of the Applicant's due diligence on the proposed Project, he has consulted with experts in the retail field, real estate brokers, and potential tenants and has determined that there is significant demand and interest in the types of commercial uses he is proposing. The Applicant has already initiated pre-leasing activity on the site.

G. The Comprehensive Plan is in conformance with the General Plan, or a concurrent General Plan amendment is in process.

The proposed Comprehensive Plan is in conformance with the goals, policies and strategies of the General Plan. Specifically, the Comprehensive Plan will make the site consistent with its General Plan Land Use "General Corridor" commercial designation. The proposed uses in this Comprehensive Plan are more consistent with the site's general plan commercial designation than with the current industrial zoning. The Comprehensive Plan will allow for a multi-use commercial development consisting of pedestrian oriented ground floor retail and restaurants with outdoor dining; office uses above the retail and/or restaurant spaces; and pedestrian friendly open courtyard areas and paseos; as well as enhancements to the streetscape along Washington Boulevard and Landmark Street, and will further the goals and objectives as outlined in Objectives 5 through 8, 10, and 12 of the General Plan Land Use Element. The proposed Project will encourage reinvestment in this area thereby improving economic vitality, visual quality, and the pedestrian environment.

H. Any exception from the standards and requirements of this Title is warranted by the design and amenities incorporated in the Comprehensive Plan and is desired by the Council.

Standards created specifically for this project are consistent with traditional General Corridor and commercial zoning standards and requirements. No exceptions are requested as part of this proposed Comprehensive Plan.

I. Existing and proposed utility services are adequate for the proposed uses.

Review of the project by the City's Public Works Department has determined that the proposed utility services and existing utilities that will serve the site are adequate for the proposed uses.

J. The Comprehensive Plan has complied with all applicable City requirements.

The Comprehensive Plan has been prepared in conformance with the Culver City Municipal Code, including the Zoning and Building Codes. This includes submission and review of a proposed site plan and uses; preliminary building plans; landscaping, lighting, and signage plans; and civil engineering plans. Review by City departments of these plans has determined that the Comprehensive Plan is compliant with all applicable City requirements.

SECTION 2. Pursuant to the foregoing recitations and findings, the City Council of the City of Culver City, California, hereby adopts Comprehensive Plan, CP-P2012018 and Zoning Code Map Amendment, ZCMA P-2012020, establishing Planned Development Zone No. 10, as set forth in Exhibit A, Zone Change Map, attached hereto, and subject to the conditions of approval as set forth in Exhibit B attached hereto and incorporated herein by this reference.

SECTION 3. Pursuant to Section 619 of the City Charter, this Ordinance shall take effect thirty (30) days after the date of its adoption. Pursuant to Sections 616 and 621 of the City Charter, prior to the expiration of fifteen days after the adoption, the City Clerk shall cause this Ordinance, or a summary thereof, to be published in the Culver City News and shall post this Ordinance or a summary thereof in at least three places within the City.

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SECTION 4. The City Council hereby declares that, if any provision, section, subsection, paragraph, sentence, phrase or word of this ordinance is rendered or declared invalid or unconstitutional by any final action in a court of competent jurisdiction or by reason of any preemptive legislation, then the City Council would have independently adopted the remaining provisions, sections, subsections, paragraphs, sentences, phrases or words of this ordinance and as such they shall remain in full force and effect.

APPROVED and ADOPTED this _____ day of _____, 2012.

_____

ANDREW WEISSMAN, MAYOR
City of Culver City, California

ATTESTED BY:

_____

MARTIN R. COLE, City Clerk

APPROVED AS TO FORM:

_____

CAROL A. SCHWAB, City Attorney

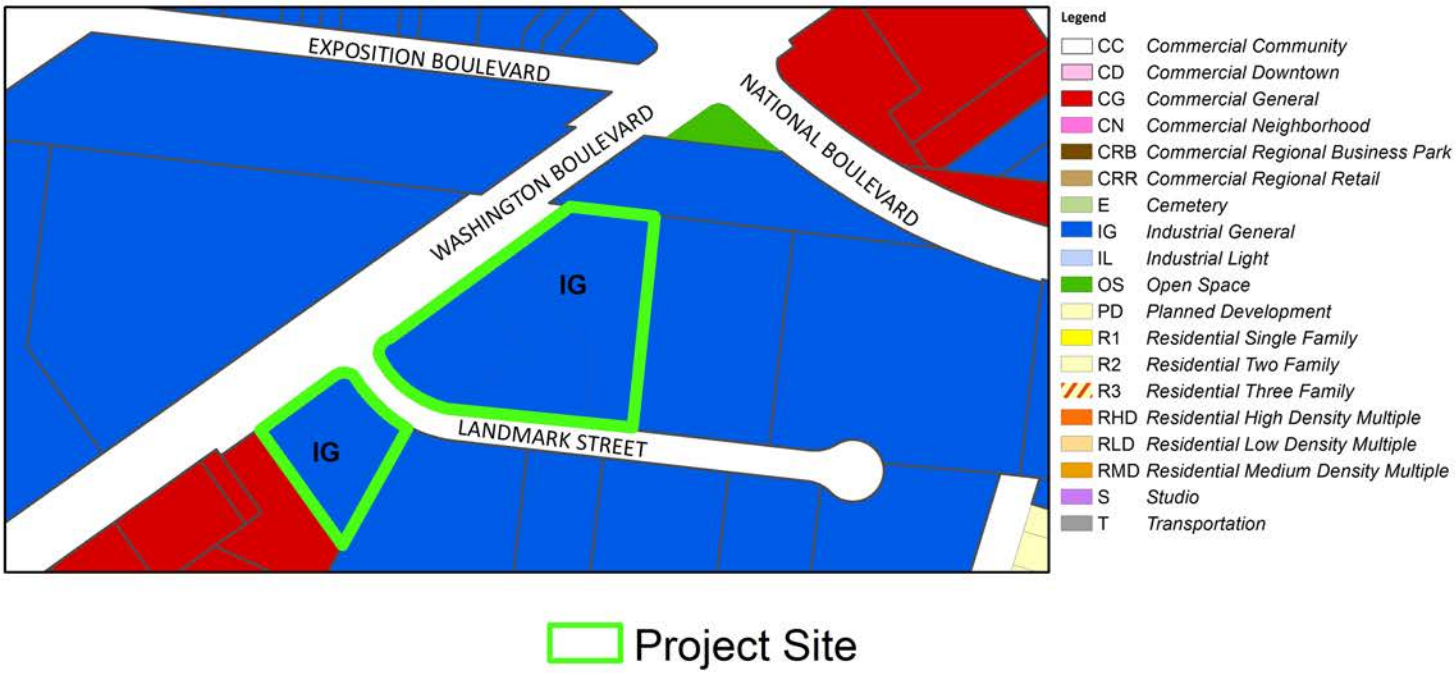
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EXHIBIT A

Ordinance No. _____

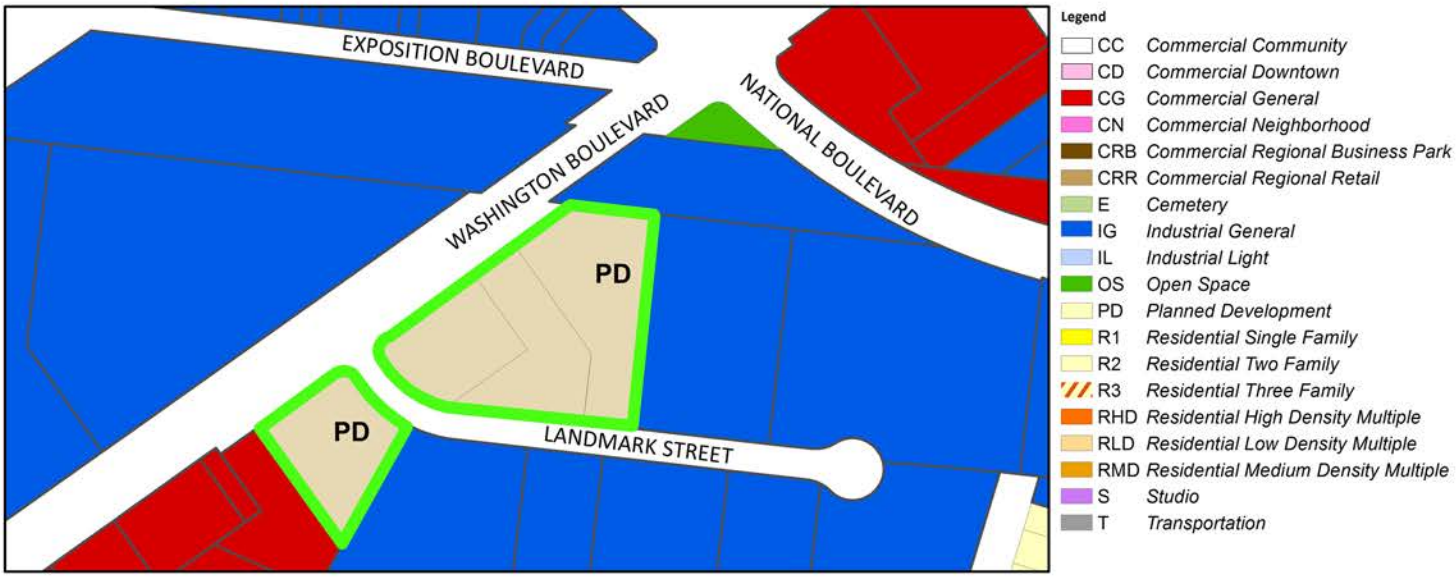
Platform Zoning Code Map Amendment
(ZCMA P - 2012020)
8810 - 8850 Washington Boulevard and
3920 Landmark Street

Existing Zoning (Industrial General)



Project Site

Proposed Zoning (Planned Development)



Project Site

EXHIBIT B
Ordinance No._____
Case Nos. ZCMA P-2012020,CP-P2012018 AND MND P-2012019

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	GENERAL			
1.	These Conditions of Approval are being imposed on Platform Planned Development and Comprehensive Plan, a commercial development of 41,745 square feet of retail and restaurant floor area, 38,732 square feet of office floor area, and two multi-level parking structures providing a total of 312 parking spaces (the "Project"), for the property located at 8810 – 8850 Washington Boulevard and 3920 Landmark Street (the "Property").	All	Standard	
2.	A copy of the Resolution approving the Project, and a copy of these Conditions of Approval, shall be printed on the plans submitted as part of any building permit application for the Project.	Planning	Standard	
3.	All building permit applications for the Project shall include sufficient information and detail to clearly reflect compliance with all applicable requirements of the Culver City Municipal Code (the "CCMC") and with these Conditions of Approval.	Planning	Standard	
4.	The land use permit to which these Conditions of Approval apply (the "Land Use Permit') shall expire four years from the date of final approval of said Land Use Permit, if the use has not been exercised. As provided in CCMC Section 15.595.030 –"Time Limits and Extensions", an applicant may request an extension of said expiration date by filing a written request with the Planning Division prior to the expiration of the land use permit.	Planning	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	GENERAL			
5.	Pursuant to CCMC Section 17.630.010.C.4 – "Posted Notice", the public notification sign(s) installed in accordance with the public notification requirements for the Land Use Permit shall be removed within ten days after the end of the appeal period or the final decision by the City Council on the Land Use Permit, whichever occurs last.	Planning	Standard	
6.	The Project shall be developed pursuant to CCMC Chapter 17.300 – "General Property Development and Use Standards".	Planning	Standard	
7.	All planted areas on the Property shall be landscaped and irrigated pursuant to CCMC Chapter 17.310 - "Landscaping".	Planning	Standard	
8.	All parking areas on the Property shall be developed pursuant to CCMC Chapter 17.320 - "Off-Street Parking and Loading".	Planning	Standard	
9.	Signs proposed for the Project shall meet all applicable requirements of CCMC Chapter 17.330 - "Signs". All signs require a separate permit and approval.	Planning	Standard	
10.	All permits and licenses required in connection with the development or use of the Project shall be applied for and obtained separately.	All	Standard	
11.	All work within the public right-of-way (including but not limited to curb, gutter, sidewalk, and driveways) shall be designed and completed to the satisfaction of the City Engineer.	Public Works	Standard	
12.	Street trees shall be installed, to the satisfaction of the City Engineer and the Community Development Director, in conformity with the City's approved Street Tree Master Plan and/or the City's Transit Oriented Development District Streetscape Plan adopted for this area including tree wells and irrigation. All new (and existing) street trees shall be supplied with irrigation water from the overall site irrigation system which shall include a timer and a rain sensor. All new (and existing) street trees, landscaping, and irrigation shall be indicated on the overall site landscaping/ irrigation plan.	Planning/ Public Works	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	GENERAL			
13.	Drainage devices, concrete curbs and gutters, sidewalks, drive approaches, and roadway pavement shall be designed in conformity with all provisions of the latest edition of the American Public Works Association Standard Plans ("APWA Standards").	Public Works	Standard	
14.	At the sole cost and expense of the Property Owner, any broken or damaged curbs, gutters, sidewalks, and street pavement resulting from construction of the Project shall be repaired and reconstructed in conformity with APWA Standards.	Public Works	Standard	
15.	Trash enclosures shall be provided and shall each have a minimum inside dimension of 10 feet x 12 feet, a gated opening that is at least 8 feet wide, and a 6 inch high by 6 inch wide concrete curb along the inside perimeter wall. Each enclosure shall also have at least a 6 inch thick concrete slab that drains at a one percent gradient out of the enclosure. Final approval for the size, location, and type of equipment needed for the adequate storage and disposal of all solid and recyclable waste generated by the Project shall be obtained from the City's Environmental Programs and Operations Manager. A fire suppression sprinkler system shall be provided within any covered trash enclosure area as required by the Fire Marshal. All refuse containers assigned to or otherwise used by the Project shall be stored on-site in the trash enclosures.	Public Works/ Fire/ Planning	Standard	
16.	All Project related solid and recyclable waste material handling shall be in accordance with CCMC Section 5.01.010 – "Solid Waste Management", which outlines the Sanitation Division's exclusive franchise for this service.	Public Works	Standard	
17.	The Project shall meet all provisions of CCMC Section 7.05.015 -"Transportation Demand and Trip Reduction Measures".	Trans.	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	GENERAL			
18.	All buildings and structures to be constructed as part of the Project shall be designed and constructed in accordance with all applicable regulations and standards of the City's Building Code, Fire Code and any related codes as determined by the Building Official and Fire Marshal; and all other applicable provisions of the CCMC which are adopted and in effect at the time of issuance of a building permit.	Building/ Fire	Standard	
19.	Any new utilities shall be placed underground or enclosed within the building construction; no new overhead utilities shall be permitted.	Building/ Planning	Standard	
20.	The Project shall comply with all applicable requirement of the Culver City Green Building Program as set forth in CCMC Section 15.02.1100, et.seq.	Building	Standard	
21.	The Project shall comply with the all applicable requirements relating to solar photovoltaic requirements as set forth in CCMC Section 15.02.100, et. seq.	Building	Standard	
22.	Changes to the Project or use approved as part of the Land Use Permit may only be made in accordance with the provisions of CCMC Section 17.595.035 – "Changes to an Approved Project".	Planning	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
PRIOR TO BUILDING PERMIT ISSUANCE				
23.	A covenant and agreement, on a form provided by the Planning Division and in form and substance acceptable to the City Attorney, acknowledging and agreeing to comply with all terms and conditions established herein, shall be signed by the Property Owner and recorded in the County Recorder's Office. The covenant and agreement shall run with the land and shall be binding on any subsequent owners, and tenants or occupants of the Property. After recordation, a certified copy bearing the Recorder's number and date shall be provided to the Planning Division.	Planning/ City Attorney	Standard	
24.	The Applicant and Property Owner shall indemnify and agree to defend (at the Applicant's and Property Owner's sole expense, with legal counsel approved by the City) and hold harmless the City, and its elected and appointed officials, officers, employees, agents, contractors and consultants from and against any and all loss, damages, injuries, costs, expenses, liabilities, claims, demands, lawsuits, attorneys' fees and judgments, arising from or in any manner connected to any third party challenge to the City's approval of the Project. The obligations required by this Condition shall be set forth in a written instrument in form and substance acceptable to the City Attorney and signed by the Applicant and the Property Owner.	City Attorney	Standard	
25.	A minimum of three sets of final landscaping and irrigation plans (separate from the plans submitted for the building permit) shall be submitted to the Planning Division for review and approval.	Planning/ Parks & Rec.	Standard	
26.	Payment of New Development Impact Fees pursuant to CCMC Section 15.06.005 et. seq. shall be submitted.	Planning/ Building	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
PRIOR TO BUILDING PERMIT ISSUANCE				
27.	A Construction Management Plan prepared by the construction contractor, which identifies the areas of construction staging, temporary power, portable toilet, and trash and material storage locations, shall be submitted to and approved by the Building Official. Prior to commencement of work the construction contractor shall advise the Public Works Inspector and the Building Inspector ('Inspectors") of the construction schedule and shall meet with the Inspectors.	Building/ Public Works	Standard	
28.	A Pedestrian Protection Plan shall be submitted to and approved by the Building Official. Such plan shall identify all areas of pedestrian protection and indicate the method of pedestrian protection or pedestrian diversion when required. When pedestrian diversion is required, the Pedestrian Protection Plan must also be approved by the Public Works Director.	Building/ Public Works	Standard	
29.	Plans submitted as part of the building permit application shall include a schedule of the special inspections anticipated, the firm proposed for the special inspections, and the resumes of all proposed special inspectors. The Building Official reserves the right to reject any special inspector at any time for the duration of the Project. All special inspection reports shall be made available to the Building Official and to any Culver City Building Safety inspector as required by the Building Official No work shall be covered without a Culver City Building Safety inspection, whether or not a special inspection was performed on such work.	Building	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
PRIOR TO BUILDING PERMIT ISSUANCE				
30.	A Construction Traffic Management Plan shall be prepared by a traffic or civil engineer registered in the State of California. The Construction Traffic Management Plan shall be submitted to the City Engineer and Planning Manager for review and approval prior to the issuance of any Project demolition, grading, or excavation permit. The Construction Traffic Management Plan shall also be reviewed and approved by the City's Fire and Police Departments. The City Engineer and Planning Manager reserve the right to reject any engineer at any time and to require that the Plan be prepared by a different engineer. The Construction Traffic Management Plan shall contain, but not be limited to, the following: A. The name and telephone number of a contact person who can be reached 24 hours a day regarding construction traffic complaints or emergency situations. B. An up-to-date list of local police, fire, and emergency response organizations and procedures for the continuous coordination of construction activity, potential delays, and any alerts related to unanticipated road conditions or delays, with local police, fire, and emergency response agencies. Coordination shall include the assessment of any alternative access routes that might be required through the Property, and maps showing access to and within the Property and to adjacent properties. C. Procedures for the training and certification of the flag persons used in implementation of the Construction Traffic Management Plan. D. The location, times, and estimated duration of any roadway closures, traffic detours, use of protective devices, warning signs, and staging or queuing areas. E. The location and travel routes of off-site staging and parking locations.	Planning/ Public Works	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	PRIOR TO BUILDING PERMIT ISSUANCE			
31.	Reasonable efforts shall be used to reuse and recycle construction and demolition debris, to use environmentally friendly materials, and to provide energy efficient buildings, equipment and systems. A Demolition Debris Recycling Plan that indicates where select demolition debris is to be sent shall be provided to the Building Official prior to the issuance of a demolition permit. The Plan shall list the material to be recycled and the name, address, and phone number of the facility of organization accepting the materials.	Building	Standard	
32.	A vector/pest control abatement plan prepared by a pest control specialist licensed or certified by the State of California shall be submitted for review and approval by the Planning Manager and the Building Official. Said plan shall outline all steps to be taken prior to the commencement of any demolition or construction activity in order to ensure that any and all pests (including, but not limited to, rodents, bees, ants and mosquitoes) that may populate the Property do not relocate to or impact adjoining properties.	Building/ Planning	Standard	
33.	Prior to issuance of a building permit, notice of the Project construction schedule shall be provided to all abutting property owners and occupants. Evidence of such notification shall be provided to the Building Division. The notice shall identify the commencement date and proposed timing for all construction phases (demolition, grading, excavation/shoring, foundation, rough frame, plumbing, roofing, mechanical and electrical, and exterior finish).	Building	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	PRIOR TO BUILDING PERMIT ISSUANCE			
34.	A Phase 1 Archaeological/Paleontological Survey shall be completed and submitted to the Planning Division and Building Safety Division for review. If the Phase 1 Archaeological/Paleontological Survey indicates the presence of archaeological and/or paleontological resources, then an archaeological and/or paleontological professional(s), approved by the City, shall monitor all phases of the excavation for the project site. In the event that the Phase 1 Archaeological/Paleontological Survey determines that no such resources exist but undetected fossil resources and/or human remains, or other archaeological/paleontological resources are encountered during construction activities, work in that area must be halted, and both the City of Culver City and the coroner must be notified. Work will be halted in that area of the detected resource until the City of Culver City's archaeologist and paleontologist have been contacted to evaluate the resources and permission to commence work in that area has been given by the City of Culver City.	Planning/ Building	**Mitigation Measure**	
35.	An asbestos and lead survey shall be submitted to the Planning Division and Building Safety Division for review. The survey shall indicate the requirements on remediating the site and precautions taken during demolition and transport of hazardous materials according to the state regulations and Asbestos Hazard Emergency Response Act (AHERA).	Planning/ Building	**Mitigation Measure**	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
PRIOR TO BUILDING PERMIT ISSUANCE				
36.	A covenant and agreement on a form provided by the Planning Division and in form and substance acceptable to the City Attorney, agreeing to hold lot numbers 1, 2, and 3 of Record of Survey 81-95 as one parcel and lot numbers 14 and portion of 13 of Record of Survey 81-95 as one parcel, shall be signed by the Property Owner and recorded in the County Recorder's office. After recordation, a certified copy bearing the Recorder's number and date shall be provided to the Planning Division.	Planning/ Public Works	**Special**	
37.	A covenant and agreement (reciprocal access agreement) on a form provided by the Planning Division and in form and substance acceptable to the City Attorney, agreeing to tie all on-site parking required for the project on both sites making said parking available to all users of the project shall be signed by the Property Owner and recorded in the County Recorder's office. The covenant and agreement shall run with the land and shall be binding on any subsequent owners, and tenants or occupants of the Property. After recordation, a certified copy bearing the Recorder's number and date shall be provided to the Planning Division.	Planning	**Special**	
38.	The off-site improvement plans shall demonstrate streetscape improvements in accordance with the City's Transit Oriented Development District Streetscape Plan including but not limited to street trees and other landscaping, concrete sidewalks, and street furniture (benches, trash receptacles, and bicycle racks.) These streetscape improvements shall be installed along the project's Washington Boulevard and Landmark Street frontage as determined by the Community Development Director and Public Works Director.	Planning/ Public Works	**Special**	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	PRIOR TO BUILDING PERMIT ISSUANCE			
39.	This project is subject to the National Pollution Discharge Elimination System (N.P.D.E.S.) requirements for a Standard Urban Stormwater Mitigation Plan (SUSMP). The SUSMP shall be approved prior to the issuance of the building permit.	Public Works	**Special**	
40.	A Storm Water Pollution Prevention Plan (SWPPP) shall be approved prior to the issuance of any construction permits.	Public Works	**Special**	
41.	This project is subject to the City's Sewer Facility Charge. This charge shall be paid prior to the issuance of building permits or any construction permits issued by the Engineering Division.	Public Works	**Special**	
	DURING CONSTRUCTION			
42.	During all phases of construction, a "Construction Rules Sign" that includes contact names and telephone numbers of the Applicant, Property Owner, construction contractor(s), and the City, shall be posted on the Property in a location that is visible to the public. These names and telephone numbers shall also be made available to adjacent property owners and occupants to the satisfaction of the Planning Manager and Building Official.	Building/ Planning	Standard	
43.	The Property shall be maintained daily so that it is free of trash and litter.	Building	Standard	
44.	During construction, dust shall be controlled by regular watering or other methods as determined by the Building inspector.	Building	Standard	
45.	The Building Division may apply administrative assessments and/ or post general stop work notices for any violations of the Conditions of Approval for the Project, and any violations of the CCMC.	Building	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	DURING CONSTRUCTION			
46.	During all phases of construction, best efforts shall be used to ensure that all construction workers, contractors and others involved with the Project park on the Property or at designated offsite locations approved by the City, and not in the surrounding neighborhood.	Building	Standard	
47.	When foundation shoring and/or foundation piles will be part of the Project, the engineer of record shall use noise dampening measures such as the drilling of shoring supports and piles as determined by the Building Official and Planning Manager.	Building/ Planning	Standard	
48.	Prior to the commencement of any excavation, a temporary construction fence shall be installed around the site. The height and fence material is subject to approval by the City Engineer and the Planning Manager.	Building/ Planning/ Public Works	Standard	
49.	Hours of construction shall be limited to the following: 8:00 AM to 8:00 PM Monday through Friday; 9:00 AM to 7:00 PM Saturday; and 10:00 AM to 7:00 PM Sunday and National holidays. Dirt hauling and construction material deliveries or removal are prohibited during the morning (7:00 AM to 9:00 AM) and afternoon (4:00 PM to 6:00 PM) peak traffic periods. All construction workers shall be respectful of the surrounding neighborhood and keep non-construction related noise to a minimum prior to, during, and after permissible construction hours.	Building/ Public Works	Standard	
50.	All staging and storage of construction equipment and materials, including the construction dumpster, shall be on-site only. The Property Owner must obtain written permission from adjacent property owners for any construction staging occurring on adjacent property.	Building/ Public Works	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	DURING CONSTRUCTION			
51.	Compliance with the following noise standards shall be required with at all times: A. No construction equipment shall be operated without an exhaust muffler, and all such equipment shall have mufflers and sound control devices (i.e., intake silencers and noise shrouds) that are no less effective than those provided on the original equipment; B. All construction equipment shall be properly maintained to minimize noise emissions; C. If any construction vehicles are serviced at a location onsite, the vehicle(s) shall be setback from any street and other property lines so as to maintain the greatest distance from the public right-of-way and from Noise Sensitive Receptors; D. Noise impacts from stationary sources (i.e., mechanical equipment, ventilators, and air conditioning units) shall be minimized by proper selection of equipment and the installation of acoustical shielding as approved by the Planning Manager and the Building Official in order to comply with the City's Noise Regulations and Standards as set forth in CCMC Chapter 9.07; and E. Stationary source equipment (i.e., compressors) shall be located so as to maintain the greatest distance from the public right-of-way and from Noise Sensitive Receptors.	Building/ Planning	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	DURING CONSTRUCTION			
52.	In the event three citations are issued in connection with the Project for violations of these Conditions of Approval or for other violations of the CCMC, Project construction shall be stopped until such time that it is determined to the satisfaction of the Community Development Director, that causes of such violations have been eliminated or corrected and that the Project will be able to proceed in full compliance with these Conditions of Approval and the CCMC.	Building/ Planning	Standard	
53.	Flag persons with certified training shall be provided for work site traffic control to minimize impacts to traffic flow and to ensure the safe movement of vehicles into and out of the Property.	Building/ Public Works	Standard	
54.	During construction, trucks and other vehicles in loading and unloading queues must be parked with their engines off to reduce vehicle emissions. Construction deliveries shall be phased and scheduled to avoid emissions peaks as determined by the Building Official and discontinued during second-stage smog alerts.	Building	Standard	
55.	Construction vehicles shall not be permitted to stage or queue where they would interfere with vehicular and pedestrian traffic or block access to adjacent properties. Off-site staging shall be at locations approved by the City Engineer and shall be of sufficient length to accommodate large trucks without being unduly disruptive to traffic operations. The drivers of these trucks shall be in radio or phone communication with on-site personnel who shall advise the drivers when to proceed from the staging location to the Property. Construction-related vehicles shall not be permitted to park on public streets.	Building/ Public Works	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
PRIOR TO CERTIFICATE OF OCCUPANCY OR FINAL INSPECTION				
56.	All provisions, and requirements set forth in these Conditions of Approval, in the Resolution approving the project, in the CCMC, or in any applicable written comments as provided by City representatives at the March 15, 2012 Project Review Committee meeting (or from updates from the City thereafter) on the Land Use Permit application, shall be fulfilled and satisfied to the satisfaction of all City departments before the use may be established or the Project occupied.	All	Standard	
57.	All requirements of the City's Art in Public Places Program, as set forth in CCMC Section 15.06.100, et. seq., shall be fully satisfied prior to the issuance of a certificate of occupancy; provided that if such requirements will be satisfied by the payment of the public art in-lieu fee, the same shall be paid prior to the issuance of a building permit.	Cultural Affairs	Standard	
58.	All onsite and offsite improvements and all conditions of approval except those which are deferred pursuant to a bond or letter of credit as determined and approved by the Building Official, Fire Marshal, Planning Manager, and/or City Engineer shall be completed prior to issuance of any certificate of occupancy. Prior to issuance of any certificate of occupancy the following shall be provided to and approved by the City: A. Five full sets of as-built plans that shall include at a minimum the site plan, grading and utility plan, landscape and irrigation plan, floor plan for each level of the Project, parking structure plan, roof plan with all mechanical equipment identified as to purpose and source and all offsite improvements; and B. One set of as-built plans as described above in a digital format compatible with the City's computer system.	All	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
PRIOR TO CERTIFICATE OF OCCUPANCY OR FINAL INSPECTION				
59.	Washington Boulevard, along the project's frontage, shall be widened to a 40 foot half street. The widening shall also include a new 10 foot sidewalk that will extend from the new curb face to the existing southerly 50 foot right-of-way line. The new easterly curb along Washington Boulevard shall join the existing curb through a smooth transitional reverse curve. The new street section of Washington Boulevard shall be a minimum of 6-inches of asphalt paving over 10-inches of crushed aggregate base (CAB). This work shall be designed and installed to the satisfaction of the City Engineer.	Public Works	**Special**	
60.	New parking stalls and standard or kiosk type parking meters shall be installed on Washington Boulevard as determined by the City Engineer. If standard meters are selected, they shall be of the type that allows the use of credit cards as manufactured by the IPS Group. If a kiosk meter is selected, it shall be of the type as manufactured by Duncan Solutions with each stall being uniquely numbered.	Public Works	**Special**	
61.	A bus stop and related appurtenances shall be installed along the project's Washington Boulevard frontage. The bus shelter shall conform to the City's Transportation Department standards. This work shall be designed and installed to the satisfaction of the City Engineer.	Public Works	**Special**	
62.	A bike lane shall be installed along the project's Washington Boulevard frontage. The required striping and signage shall be reflected in the signing and striping plan as part of the project's street improvement plans.	Public Works	**Special**	
63.	The existing curb returns at both corners of Washington Boulevard and Landmark Street shall be reconstructed with a 25-foot radius and new curb ramps. Adequate street easements shall be dedicated for the corner cut-off at each corner and any additional right-of-way necessary for the construction of the new curb returns.	Public Works	**Special**	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
PRIOR TO CERTIFICATE OF OCCUPANCY OR FINAL INSPECTION				
64.	The existing traffic signal poles at both corners of Washington Boulevard and Landmark Street shall be relocated to an approved location based on the reconstructed curb returns. A new pedestrian crosswalk shall be installed across Washington Boulevard at the easterly return, which shall include a new or reconstructed curb ramp on the north side of Washington Boulevard. New LED countdown pedestrian heads shall be installed on the two traffic signals controlling this new crosswalk. ADA compliant "Bulldog" type pedestrian push buttons and audible signal devices shall be installed on the four traffic signal poles that control all pedestrian crosswalks at this intersection. A westbound left-turn signal on Washington Boulevard shall also be required at this intersection. Any other ancillary work as determined by the City Engineer required to accomplish the above described work, including but not limited to installation of new mast arms, signal poles, street lights, and modifications to the service and controller cabinets shall be included. Any new signal poles shall be designed for 100 mph winds per CALTRANS standards. This work shall be shown on a traffic signal plan and a signing and striping plan, prepared by a civil or traffic engineer registered in the State of California, and shall be submitted to the Engineering Division for review, approval, and permitting. Separate traffic signal timing charts shall be submitted for review.	Public Works	**Special**	
65.	A five foot sidewalk shall be provided adjacent to the curb on Landmark Street. All street lights, street trees, fire hydrants, etc. shall be relocated to behind the sidewalk. A street easement shall be dedicated for the sidewalk and a public utility easement shall be dedicated at each location where a public facility will be located. The new sidewalk will require the reconstruction of the existing drive approaches that will still be used.	Public Works	**Special**	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
PRIOR TO CERTIFICATE OF OCCUPANCY OR FINAL INSPECTION				
66.	The full width of Landmark Street shall be repaved from Washington Boulevard to the southeasterly project boundary. The repaving shall consist of a two-inch grind and inlay of Rubberized Asphalt Concrete (RAC). All striping, parking tees and markers removed by said repaving shall be replaced with thermoplastic paint. The applicant has requested that a portion of Landmark Street, as it approaches Washington Boulevard, be reconstructed in concrete. If this option is selected, the concrete shall be a minimum of 8 inches thick and shall be placed on a 6 inch layer of compacted CAB.	Public Works	**Special**	
67.	All drive approaches that will no longer be used shall be removed and reconstructed with curb, gutter, and sidewalk.	Public Works	**Special**	
68.	Existing parking meters located along the project's frontage with Landmark Street shall be relocated due to the closure of any driveways. New parking meters may be required as determined by the City Engineer. Existing parking meter heads shall be replaced and the new parking meter heads shall both be of the type that allows the use of credit cards as manufactured by the IPS Group and approved by the City Engineer.	Public Works	**Special**	
69.	All drive approaches shall be at least as wide as the drive aisle and not more than one foot wider on each side.	Public Works	**Special**	
70.	All existing and proposed drive approaches shall have a minimum 3 foot ADA concrete landing at the top of the approach.	Public Works	**Special**	
71.	All concrete used in the public right-of-way shall have a minimum strength of 3250 psi.	Public Works	**Special**	
72.	The existing street light system along the project's frontage with Washington Boulevard and Landmark Street shall be converted to low voltage induction type lighting. New street light conduit, wiring, pull boxes, light fixtures, and ballast shall be required.	Public Works	**Special**	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
PRIOR TO CERTIFICATE OF OCCUPANCY OR FINAL INSPECTION				
73.	Street trees, tree wells, tree grates, ground cover planting, and irrigation shall be installed within the project's frontage along Washington Boulevard and Landmark Street in accordance with the City's Transit Oriented Development District Streetscape Plan. A separate landscape and irrigation plan shall be submitted to the Engineering Division for review, approval, and permitting. Irrigation within the public right-of-way shall be connected to the private on-site irrigation system.	Planning/ Public Works	**Special**	
74.	Secure bicycle parking shall be provided to accommodate twenty-two (22) bicycles. The bicycle parking shall be provided to accommodate seven (7) long-term and at least fifteen (15) short-term parking positions. The long-term spaces shall be provide in individual bike lockers or bike racks in a secure locking fenced enclosure on the ground floor of the project's parking structure on the main development parcel. The short-term spaces shall be provided on both of the development sites and on the adjacent public sidewalk right-of-way, using eight (8) City approved "Inverted - U" Bicycle Racks. Exact location of the Bicycle Racks and in the public right-of-way shall be approved by the City Engineer.	Public Works	**Special**	
75.	All existing sewer laterals that have been abandoned or will be abandoned due to the project design and are located within the project boundary shall be capped at the property line.	Public Works	**Special**	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
PRIOR TO CERTIFICATE OF OCCUPANCY OR FINAL INSPECTION				
76.	The Project shall contribute $50,000 towards a study and implementation of a shuttle system connecting the residential and commercial areas in Downtown Culver City and Hayden Tract areas to and from the Culver City Exposition Light Rail Transit (LRT) Station. This shuttle system will include shuttle buses with stops along Washington Boulevard. The schedules for these shuttles should be developed such that coordinated transfers to and from the LRT station at Culver City are achieved. These shuttles would operate at enhanced frequencies during the peak commuter time periods and provide fast, convenient, and efficient connections to the Metro Exposition LRT line. In the event that the proposed shuttle program has not progressed sufficiently to warrant study funding, the $50,000 contribution mentioned above shall be used as the project's fair share towards the design and implementation of Adaptive Traffic Control Systems (ATCS) at the intersection of Washington Boulevard/National Boulevard. This includes provision of ATCS-associated control PC hardware/software, if required.	Public Works	**Mitigation Measure**	
77.	A westbound left-turn signal at the intersection of Washington Boulevard and Landmark Street shall be designed and constructed by the Applicant to the satisfaction of the Public Works Director. The Applicant shall be responsible for all costs associated with the modification of the traffic signal.	Public Works	**Mitigation Measure**	
78.	A valet parking plan outlining the parking management of the valet parking in Building D shall be submitted to the Planning Division for review and approval by the Planning Manager and the City Traffic Engineer.	Planning	**Special**	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	ON-GOING			
79.	The use and development of the Property shall be in substantial conformance with the plans and materials submitted with the application for the Land Use Permit as reviewed by the Planning Commission at its meeting on **October 4, 2012**, excepted as modified by these Conditions of Approval.	Planning	Standard	
80.	Pursuant to CCMC Section 17.650.020 - "Inspection", the Property Owner and Applicant shall allow authorized City officials, or their designees, access to the Property where there is reasonable cause to believe the Property is not in compliance with these Conditions of Approval or other requirements of the CCMC.	All	Standard	
81.	The use and development of the Property shall comply with these Conditions of Approval and all applicable local, special district or authority, county, state and federal statutes, codes, standards, and regulations including, but not limited to, Building Division, Fire Department, Planning Division and Public Works Department requirements, and shall comply with all applicable CCMC requirements and all comments made during the City's building permit plan check review process. Failure to comply with said Conditions, statutes, codes, standards, and regulations may result in reconstruction work, demolition, stop work orders, withholding of certificate of occupancy, revocation of land use permit approval and/or any other lawful action the City might deem reasonable and appropriate to bring about compliance.	All	Standard	
82.	All graffiti shall be removed from the Property within 48 hours of its application.	Building/ Planning/ Public Works	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	ON-GOING			
83.	The Property Owner shall maintain all street trees along the property frontage at his/her sole cost and expense.	Public Works	Standard	
84.	All mitigation measures set forth in any environmental document relating to the Project (including any reports of the type contemplated by the California Environmental Quality Act) shall be completed as specified therein.	Planning	Standard	
85.	The Director, or his or her designee, shall conduct follow-up inspections on the design, operation and maintenance of the Project after full operation of the Project has commenced, as set forth in this Condition. A report on the Project traffic mitigations, on-site circulation, parking, project design, maintenance and operation shall be reviewed by the Planning Commission six months after occupancy of the Project. In the event the Project is not in full compliance with the approved Project plans, Project conditions of approval and approved Comprehensive Plan, the matter shall be set for public hearing pursuant to CCMC Chapter 17.660 – Revocations and Modifications.	Planning	**Special**	
86.	Changes or alterations to this Comprehensive Plan shall not be considered minor (and therefore shall not be subject to administrative approval pursuant to CCMC Section 17.560.025) if they will: a) Alter the exterior appearance of the project; b) Alter the materials being used on the exterior of the project (unless the new materials are of equal or better quality and are so similar in appearance to the materials on the approved materials board that the difference would not be noticed by a reasonably observant person); or c) Alter the floor plans in any material way, or increase the size of any one or more of the following areas: retail, restaurant, outdoor dining, and/or office.	Planning	**Special**	

EXHIBIT B
Ordinance No._____
Case Nos. ZCMA P-2012020,CP-P2012018 AND MND P-2012019

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	ON-GOING			
87.	The applicant shall be responsible for installing "way finding signs" for the TOD District as provided in the Washington National Streetscape Plan as determined by the Director.	Planning	**Special**	
88.	The total floor area of retail and restaurant (including bars and nightclubs) uses shall not exceed 41,745 square feet. Restaurants (including bars and nightclubs) shall not exceed 35% of the overall retail/restaurant floor area.	Planning	**Special**	
89.	The courtyard trees to be a minimum 72 inch box size at installation and the exact location and final species selection shall be subject to review and approval by the City's Landscape Architect.	Planning	**Special**	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	ON-GOING			
90.	Inspections of the on-site parking and valet parking operations shall be conducted by the Planning Manager and the City's Traffic Engineer at 6-month, 12-month, and 24-month periods after full operation of the Project. Thereafter, follow-up inspections shall be conducted on a case by case basis as determined necessary by the City. If it is determined (i) that the number of on-site parking spaces is not sufficient to satisfy demand, or (ii) that the valet parking operations are not adequately serving the Project, or (iii) that the Project's parking facilities or operations are in any other way not fully and adequately serving the customers, patrons, employees, suppliers and contractors of the Project, then additional methods to provide fully adequate on-site parking shall be devised, such additional requirements shall be set forth in a revised valet parking plan acceptable to the City, and said plan shall be promptly and fully implemented. If fully adequate parking cannot be provided by the above methods, the demand for parking at the Project shall be reduced in a manner acceptable to the City (by, for example, reducing the amount of outdoor dining area), until the parking that can be provided will be adequate for the reduced demand.	Planning	**Special**	

RESOLUTION NO. 2012-P011

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CULVER CITY, CALIFORNIA, RECOMMENDING TO THE CITY COUNCIL APPROVAL OF COMPREHENSIVE PLAN, CP-P2012018 AND ZONING CODE MAP AMENDMENT, ZCMA P-2012020, FOR PLANNED DEVELOPMENT ZONE NO. 10, CONSISTING OF A COMMERCIAL DEVELOPMENT OF APPROXIMATELY 41,745 SQUARE FEET OF RETAIL AND RESTAURANT USES AND 38,732 SQUARE FEET OF OFFICE USES LOCATED AT 8810-8850 WASHINGTON BOULEVARD AND 3920 LANDMARK STREET IN THE INDUSTRIAL GENERAL (IG) ZONE, AND RELATED ZONING CODE MAP AMENDMENT, ZCMA P-2012020.

(CP-P2012018 AND ZCMA P-2012020)

WHEREAS, on February 29, 2012, Mr. Joseph Miller of the Runyon Group, as the applicant and property owner (the "Applicant") of 8810-8850 Washington Boulevard and 3920 Landmark Street, filed an application for a Comprehensive Plan and Zoning Code Map Amendment for Planned Development District No. 10, consisting of a commercial development of approximately 41,745 square feet of retail and restaurant uses, 38,732 square feet of office uses, and two multi-level parking structures providing a total of 313 parking spaces (the "Project"), the Project site described more fully as Lots 1, 2, 3, portion of 13, and 14 of Tract No. 4757, in the City of Culver City, County of Los Angeles, State of California; and,

WHEREAS, in order to implement the proposed Project, approval of the following applications are required:

1. Zoning Code Map Amendment: For consistency between land use designation and zoning, specifically the zone change of the Project site from the Industrial General (IG) Zone to a Planned Development (PD) Zoning District: and

2. Comprehensive Plan: To ensure the Project is in compliance with all required standards and City ordinances and establish all onsite and offsite conditions of approval to

reflect the site features and compatibility of the proposed Project with the uses on adjoining properties.

WHEREAS, on October 4, 2012, after conducting a duly noticed public hearing (held on September 12, 2012 and continued on October 4, 2012) on the subject applications, including full consideration of the applications, plans, staff report, environmental information and all testimony presented, the Planning Commission (i) by a vote of 5 to 0, adopted a Mitigated Negative Declaration, in accordance with the California Environmental Quality Act (CEQA), finding the Project, as mitigated, will not result in significant adverse environmental impacts; and (ii) by a vote of 5 to 0, recommended to the City Council approval of Comprehensive Plan, CP-P2012018 and Zoning Code Map Amendment, ZCMA P-2012020, for Planned Development Zone No. 10, as set forth herein below.

NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF CULVER CITY, CALIFORNIA, RESOLVES AS FOLLOWS:

SECTION 1. Pursuant to the foregoing recitations and the provisions of Culver City Municipal Code (CCMC), the following findings are hereby made:

Zoning Code Map Amendment for Planned Development Zone No. 10:

As outlined in CCMC Title 17, Section 17.620.030.A, the following required findings for a Zoning Code Map Amendment are hereby made:

1. **The proposed amendment ensures and maintains internal consistency with the goals, policies and strategies of all elements of the General Plan and will not create any inconsistencies with this Title, in the case of a Zoning Code Amendment.**

   The proposed Zoning Code Map Amendment for the proposed Project ensures and maintains internal consistency with the goals, policies and strategies of the General Plan. Specifically, the Zoning Code Map Amendment that will change the zoning of the Project site from the IG Zone to PD Zone No. 10 will make the site consistent with

the General Plan Land Use "General Corridor" commercial designation. The proposed uses are more consistent with the site's General Plan commercial designation than with the current Industrial General zoning.

This zone change, which will allow for a Comprehensive Plan for multi-use commercial development consisting of pedestrian oriented ground floor retail and restaurants with outdoor dining; office uses above the retail and/or restaurant spaces; pedestrian friendly open courtyard areas and paseos; as well as enhancements to the streetscape along Washington Boulevard and Landmark Street, will further the goals and objectives as outlined in Objectives 5 through 8, 10 and 12 of the General Plan Land Use Element. The proposed Project will encourage reinvestment in this area thereby improving economic vitality, visual quality, and the pedestrian environment. Currently the Project site consists of several vacant buildings, paved surface level parking lots and a three level above ground parking structure previously used by a car dealership. The proposed Zoning Code Map Amendment for the proposed Project will not result in any inconsistency with the General Plan.

2. **The proposed amendment would not be detrimental to the public interest, health, safety, convenience or welfare of the City.**

The proposed Zoning Code Map Amendment is not detrimental to the public interest, health, safety, convenience or welfare of the City in that the amendment, and subsequent Project, have been reviewed by City Departments to ensure compliance with all relevant City standards, codes and policies. The proposed zone change from Industrial General to Planned Development to implement the Comprehensive Plan is more compatible and consistent with the General Corridor General Plan Land Use designation. The zone change to Planned Development would focus the types of uses allowed in the Comprehensive Plan consistent with the goals and objectives of the Commercial District and the Transit Oriented Development (TOD) area as opposed to the Industrial District. This would lessen the impacts to the surrounding area that would otherwise occur with industrial type uses. No health or safety hazards have been identified in the review of this Project.

The Zoning Code Map Amendment will allow for a Comprehensive Plan for a multi-use commercial development that is anticipated to encourage new business, tourists and retail opportunities in the City. Business and commercial opportunities add to the economic vitality that serves the community and protects the quality of life. The Project will be integral to the success of the TOD area that includes proposed mixed use projects because it will support local commercial activity and help in the creation of pedestrian friendly retail opportunities and community gathering spaces. With City approval of the proposed amendment, the Project will be consistent with the objectives of the General Plan Land Use "General Corridor" commercial designation and will be in conformance with the CCMC, including the Zoning Code.

3. **The proposed amendment is in compliance with the provisions of the California Environmental Quality Act (CEQA).**

The proposed Zoning Code Map Amendment is in compliance with CEQA as more fully detailed in the Project's environmental documentation, including, but not limited to, the Initial Study, Mitigated Negative Declaration and Project traffic study. Potential impacts to various environmental factors as reviewed in the Initial Study will be mitigated through various green building methods that include, where feasible, use of local manufactured products, storm water filtration systems, high rated building insulation, and permeable exterior paving surfaces to reduce storm water run-off. Other sustainable development practices will include photovoltaic electricity generation, low flow fixtures and low consumption urinals, drought tolerant vegetation, green-screen wall systems incorporated into the courtyard landscape design, dual low emissivity glazing, and façade shading elements to reduce solar heat gain. In accordance with CEQA, the Project's greenhouse gas emission impacts were reviewed and found to have a less than significant environmental impact on the surrounding area. Carbon emission reduction procedures have been incorporated into the Project, which include bicycle racks spread throughout the site and bicycle facilities including lockable areas, participation and support of a potential shuttle service that would loop from the Hayden Tract area to the Exposition Light Rail Transit Station to Downtown Culver City, preferred parking for low emission vehicles and carpool vehicles, and sourcing products from local manufacturers when possible.

As outlined in CCMC Title 17, Section 17.620.030.B, the following additional required finding for a Zoning Code Map Amendment is hereby made:

4. The sites are physically suitable (including access, provision of utilities, compatibility with adjoining land uses and absence of physical constraints) for the requested zoning designation(s) and anticipated land use development.

A complete review by City staff has determined that the Project site is in compliance with all applicable design standards and all public services can be provided; therefore, the site is physically suitable (including access, provision of utilities, compatibility with adjoining land uses and absence of physical constraints) for the requested zoning designation and anticipated land use development as outlined in the Comprehensive Plan.

The multi-use commercial development project has been sited and designed to be integral to the Transit Oriented Development (TOD) area and will create a transition from the Exposition Light Rail Transit station, planned mixed use TOD developments and more traditional commercial uses further west toward Downtown Culver City. Commercial uses are located on Washington Boulevard while commercial, light industrial and school uses are located along Landmark Street. The commercial development will fit within this fabric while providing local market, retail, and restaurant opportunities for local residents that will be a part of the planned TOD mixed use projects nearby. The height of the proposed structures and existing structures to remain do not exceed the 56 foot height limit and comply with Zoning Code setback and parking requirements.

Vehicular access to the Project site has been located at physically suitable locations on Landmark Street that are sufficiently distant from Washington Boulevard to avoid impacts on that major arterial. In addition, locating on-site parking access on Landmark Street instead of Washington Boulevard avoids impacts to traffic flow on Washington Boulevard, one of the City's major roadways.

In sum, the proposed use of office, retail, and restaurants is compatible with existing land uses. The site occupies corner to corner parcels with a majority of frontage on Washington Boulevard. This frontage makes the site ideal for a pedestrian facing retail project. The exiting utility services such as water, sewer and gas line are adequate for the proposed uses.

Comprehensive Plan for Planned Development Zoning District No. 10:

As outlined in CCMC Title 17, Section 17.560.020, the following required findings for a Comprehensive Plan are hereby made:

A. The proposed Comprehensive Plan can be substantially completed within four years.

According to the Applicant, the proposed Project is planned and scheduled to be complete within four years (most likely within two years). The Applicant owns the land with no debt and has the capital to build the entire Project. Construction is expected to begin in early 2014 with substantial completion by mid-2014, provided approval of the requested entitlement is granted.

B. The proposed development is capable of creating an environment of sustained desirability and stability or adequate assurance will be provided such objective will be attained.

The proposed development will create an environment of sustained desirability and stability by providing the neighborhood with commercial uses that will serve the surrounding business and residential neighbors. The Hayden Tract, Helms Bakery Complex, and East Washington areas have flourishing office and retail populations, residential communities and dynamic art, food, and design establishments. The proposed Project, consisting of retail, office and dining and community space tie all of these various uses together assuring this area's continued success. The proposed Project will enhance and sustain the desirability and stability of the entire neighborhood.

C. The proposed uses will not be substantially detrimental to present and potential surrounding uses but will have a beneficial effect.

A mix of transportation, industrial and commercial uses currently surround the Project site, including the Exposition Light Rail Transit station, warehousing and distribution facilities, retail and office establishments, a private school, and vacant land (proposed to be a mixed use project with residential and retail uses). The proposed Project uses of office, retail, and restaurants will be compatible with the surrounding areas. The Project site is currently vacant with several empty buildings and paved surface parking lots previously occupied by a car dealership. The proposed Project will have a beneficial effect by developing the site with active uses, new retail and office opportunities, pedestrian friendly open courtyards and paseos and a vibrant and enhanced streetscape.

D. The streets and thoroughfares serving the development are suitable and adequate to carry anticipated traffic and the development will not generate traffic that will overload the adjacent street network.

A comprehensive traffic study has been conducted to determine impacts the Project may have on traffic. The study showed a slight impact on one of the studied intersections and has stipulated a measure that will mitigate this impact to a less than significant level. As a result of this mitigation, the traffic study has determined that the Project will not generate traffic that will overload the adjacent street network. It is also important to note that the proposed Project is served by two major thoroughfares; Washington and National Boulevards. The site is surrounded entirely by commercial uses and does not border any residential neighborhoods.

E. The proposed development is compatible with the surrounding area.

The surrounding area is comprised of commercial and light industrial buildings. The proposed development is entirely commercial and is therefore compatible with the surrounding uses.

F. The types and locations of any proposed commercial development can be economically justified.

The Applicant has invested a significant amount of capital into the Project, thereby committing to develop the site as proposed. As part of the Applicant's due diligence on the proposed Project, he has consulted with experts in the retail field, real estate brokers, and potential tenants and has determined that there is significant demand and interest in the types of commercial uses he is proposing. The Applicant has already initiated pre-leasing activity on the site.

G. The Comprehensive Plan is in conformance with the General Plan, or a concurrent General Plan amendment is in process.

The proposed Comprehensive Plan is in conformance with the goals, policies and strategies of the General Plan. Specifically, the Comprehensive Plan will make the site consistent with its General Plan Land Use "General Corridor" commercial

designation. The proposed uses in this Comprehensive Plan are more consistent with the site's general plan commercial designation than with the current industrial zoning. The Comprehensive Plan will allow for a multi-use commercial development consisting of pedestrian oriented ground floor retail and restaurants with outdoor dining; office uses above the retail and/or restaurant spaces; and pedestrian friendly open courtyard areas and paseos; as well as enhancements to the streetscape along Washington Boulevard and Landmark Street, and will further the goals and objectives as outlined in Objectives 5 through 8, 10, and 12 of the General Plan Land Use Element. The proposed Project will encourage reinvestment in this area thereby improving economic vitality, visual quality, and the pedestrian environment.

H. Any exception from the standards and requirements of this Title is warranted by the design and amenities incorporated in the Comprehensive Plan and is desired by the Council.

Standards created specifically for this project are consistent with traditional General Corridor and commercial zoning standards and requirements. No exceptions are requested as part of this proposed Comprehensive Plan.

I. Existing and proposed utility services are adequate for the proposed uses.

Review of the project by the City's Public Works Department has determined that the proposed utility services and existing utilities that will serve the site are adequate for the proposed uses.

J. The Comprehensive Plan has complied with all applicable City requirements.

The Comprehensive Plan has been prepared in conformance with the Culver City Municipal Code, including the Zoning and Building Codes. This includes submission and review of a proposed site plan and uses; preliminary building plans; landscaping, lighting, and signage plans; and civil engineering plans. Review by City departments of these plans has determined that the Comprehensive Plan is compliant with all applicable City requirements.

SECTION 2. Pursuant to the foregoing recitations and findings, the Planning Commission of the City of Culver City, California, hereby recommends to the City Council approval of Comprehensive Plan, CP-P2012018, and Zoning Code Map Amendment, ZCMA P-2012020, Planned Development No. 10, as set forth as Exhibit "A", Zone Change Map attached hereto, and subject to the conditions of approval as set forth in Exhibit B attached hereto and incorporated herein by this reference.

APPROVED and ADOPTED this 4th day of October 2012.

SCOTT WYANT, CHAIRPERSON
PLANNING COMMISSION
CITY OF CULVER CITY, CALIFORNIA

Attested by:

Yvonne Hunt
Administrative Secretary



PLATFORM

PLANNED DEVELOPMENT ZONE, and COMPREHENSIVE PLAN

Adopted on _____, 2012, Ordinance No 2012-_____

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01

PROJECT DESCRIPTION

PROJECT DESCRIPTION

The project is a multi-use commercial development located at 8810, 8840, and 8850 Washington Boulevard and 3920 Landmark Street within the Washington/National Transit Oriented District (TOD) near the Exposition Light Rail Transit Line and Station (Expo) in Culver City. The project comprises two sites totaling approximately 89,560 s.f. or 2.06 acres (Parcel 1: 21,796 s.f. or 0.5 acres and Parcel 2: 67,804 s.f. or 1.56 acres), fronting Washington Boulevard with Landmark Street bisecting the project. Both sites were formerly occupied by the Hyundai, Mazda and Nissan car-dealership. The current surrounding uses include a private primary school, air conditioning manufacturing, general warehouse, auto repair and some retail.

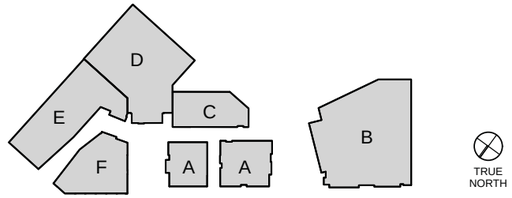
Project Area Summary Table

Building	Retail	Restaurant/ Retail+	Office	Parking	**Total**
Building A	4,109 s.f.	3,020 s.f.	29,816 s.f.		**36,945 s.f.**
Tenant Space Utility Circulation	4,109 s.f.	3,020 s.f.	24,110 s.f. 1,608 s.f. 4,098 s.f.		
Building B	2,060 s.f.	2,400 s.f.	576 s.f.	107,450 s.f.	**112,486 s.f.**
Tenant Space Utility Circulation	2,060 s.f.	2,400 s.f.	576 s.f.	100,271 s.f. 2,456 s.f. 4,723 s.f.	
Building C	5,095 s.f.				**5,095 s.f.**
Tenant Space Utility	4,345 s.f. 750 s.f.				
Building D*	660 s.f.			39,935 s.f.	**40,595 s.f.**
Tenant Space Utility Circulation	660 s.f.			37,504 s.f. 2,016 s.f. 415 s.f.	
Building E**	10,998 s.f.	6,789 s.f.	8,340 s.f.	1,068 s.f.	**27,195 s.f.**
Tenant Space Utility Circulation	8,176 s.f. 876 s.f. 1,946 s.f.	5,369 s.f. 639 s.f. 781 s.f.	5,865 s.f. 416 s.f. 2,059 s.f.	 1,068 s.f.	
Building F	4,135 s.f.	2,479 s.f.			**6,614 s.f.**
Tenant Space	4,135 s.f.	2,479 s.f.			
Total Area by Use	**27,057 s.f.**	**14,688 s.f.**	**38,732 s.f.**	**148,453 s.f.**	**228,930 s.f.**

+ maximum allowable area for potential restaurant use, may also be used as retail
* including courtyard kiosk
** excluding roof deck

The project consists of six buildings (Buildings A through F) totaling 41,745 square feet of retail and restaurant floor area, and 38,732 square feet of office floor area. There are two above ground parking structures, one existing 3 level structure containing 93 parking spaces in a combination of self-parking and valet parking; and the other a new 5 level structure containing 219 self-parking spaces for a total of 312 on-site parking spaces.

The project includes adaptive reuse of some existing buildings in conjunction with new construction to create a community oriented niche shopping environment with office uses in some of the buildings at the upper levels. The broad themes that drive the design are transportation, pedestrian flow and sustainability.



KEY PLAN



Aerial view of project with Expo Train line in foreground.

DESIGN CONCEPTS

This is a transit oriented project that will complement the nearby Expo station. The proximity of the project to the new Expo station at Washington and National Boulevards is a key generator of visual cues for the design of the retail and office environment.

Platform is a campus of six buildings that are connected by open spaces between the buildings. This open space includes two paseos and a 7,000 square foot open air central courtyard. The courtyard serves as an interactive community space that serves as the connector to the two paseos as well as to Washington Boulevard. In addition to these open spaces the project is designed with wide pedestrian oriented building setbacks along Washington Boulevard. Pedestrian amenities such as canopies, benches and landscape elements will add character to Washington Boulevard and offer a pleasant amenity to the pedestrian.

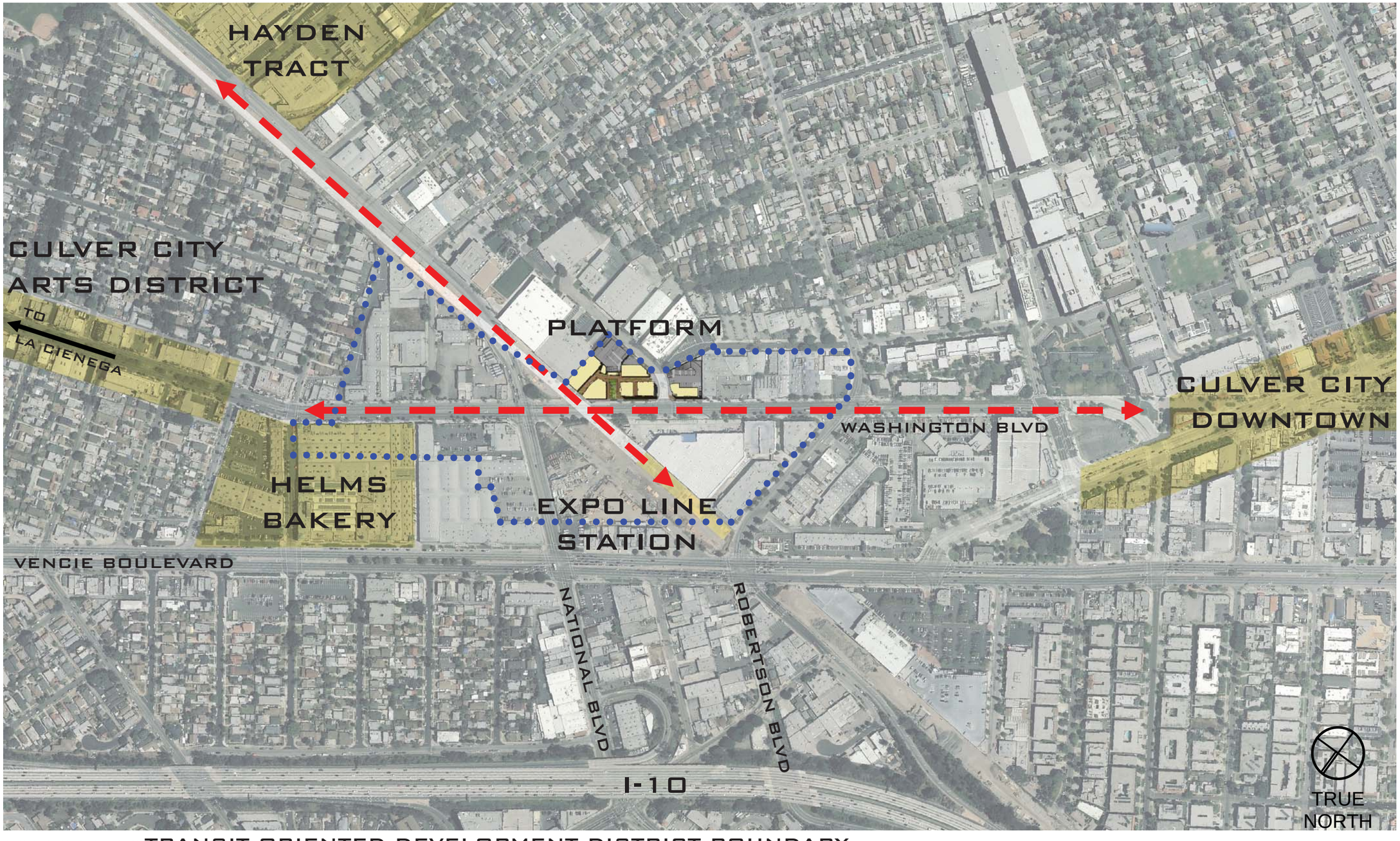
The project also fosters pedestrian access and connectivity from the Expo station which is located to the north across Washington Boulevard, by providing a pedestrian entrance into the easternmost part of the site near the intersection of Washington Boulevard and National Boulevard. This urban design feature was incorporated into the project to provide a direct and convenient access into the site from the Expo station and to encourage people to visit the site.

Furthermore, the project will activate this portion of Washington Boulevard that is currently undergoing revitalization as part of the TOD district and is an integral and vital link of urban and commercial activity between the Helms Bakery Complex and Arts District area to the east, Downtown Culver City to the west, and the Hayden Tract area to the South.

Energy saving and sustainable design is integral to the project. It is incorporated throughout in the building systems and in the choice of materials. There is an outward expression of green building design visible from the passing train above and from the street level. The buildings incorporate green design elements such as photovoltaic electricity generation and storm water filtration.

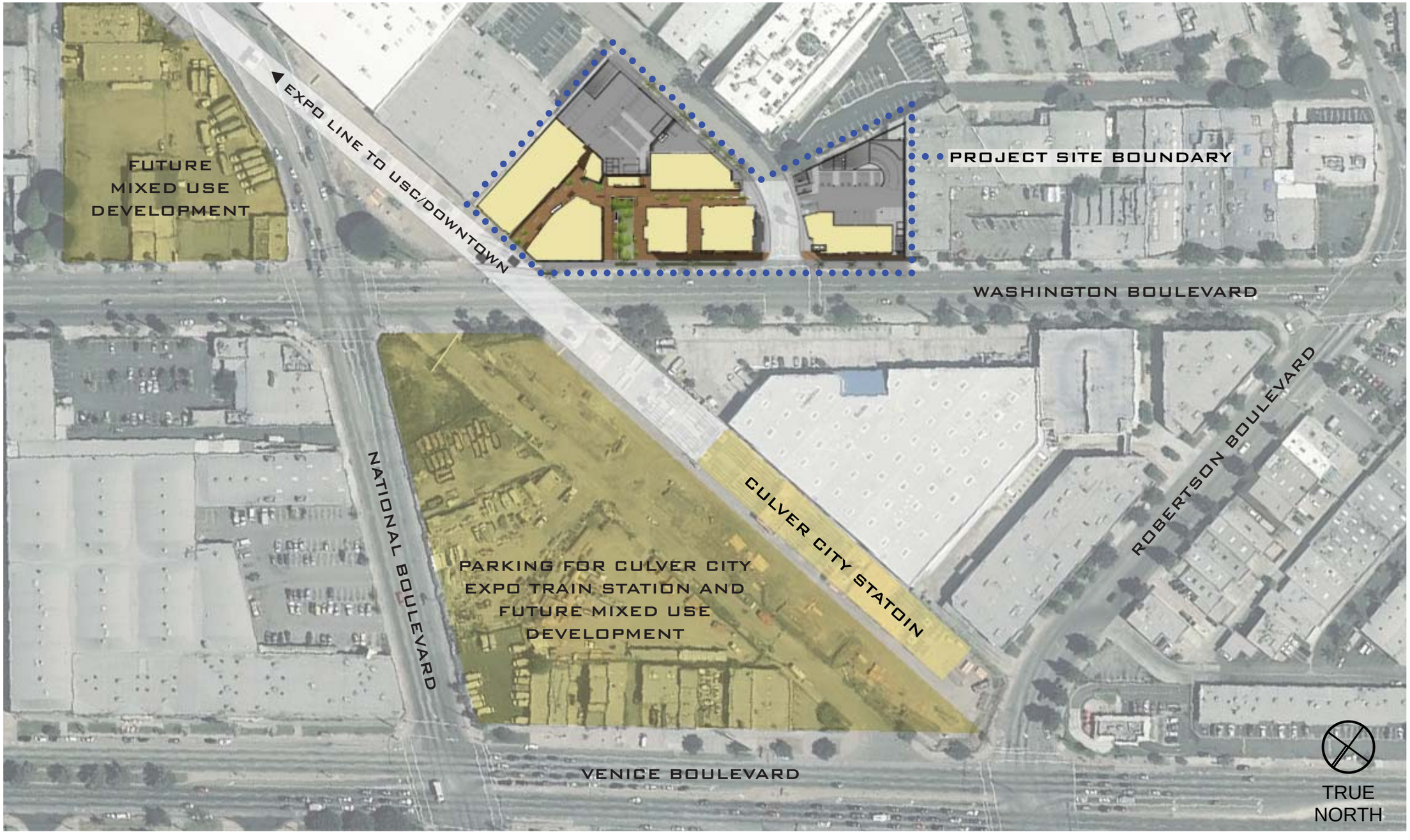


View of Washington Boulevard

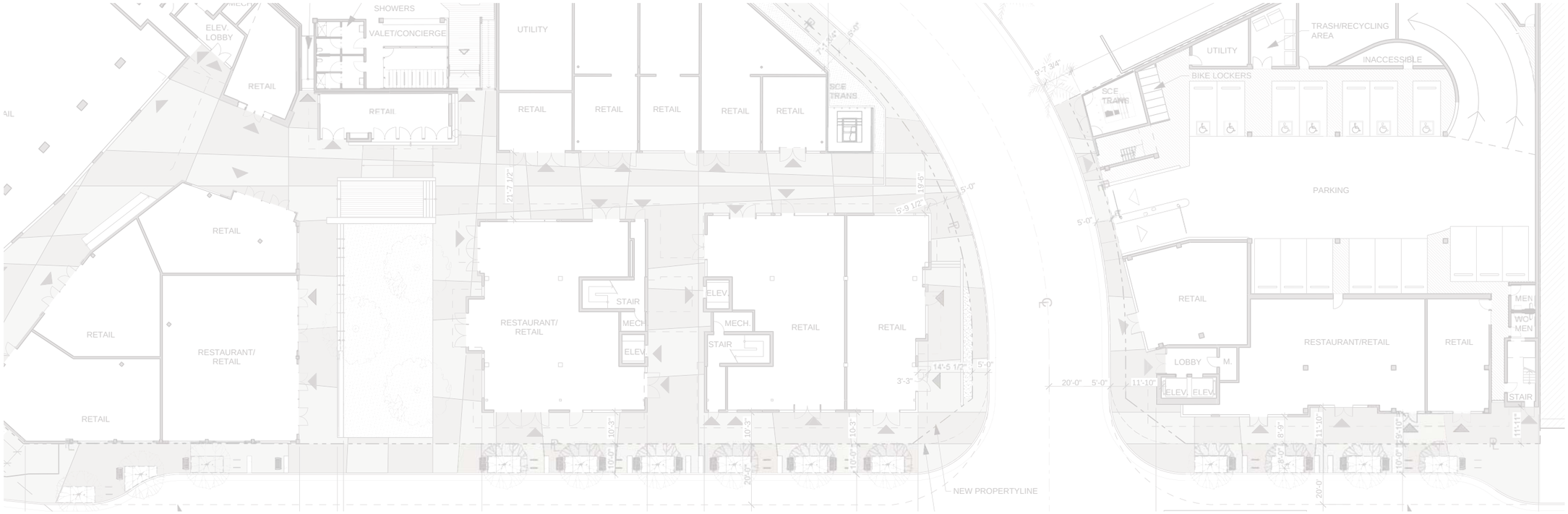


TRANSIT ORIENTED DEVELOPMENT DISTRICT BOUNDARY

URBAN CONTEXT



SITE CONTEXT





Washington Boulevard

02

LAND USE AND DEVELOPMENT STANDARDS



View of Washington Boulevard

A. LAND USE

General Plan
The General Plan Land Use designation of the project site is General Corridor. The General Corridor designation allows a range of small to medium scale commercial uses, emphasizing community serving retail, office and service uses along major corridors. It is intended to support desirable existing and future neighborhood and community serving commercial uses and housing opportunities that are compatible with nearby residential neighborhoods.

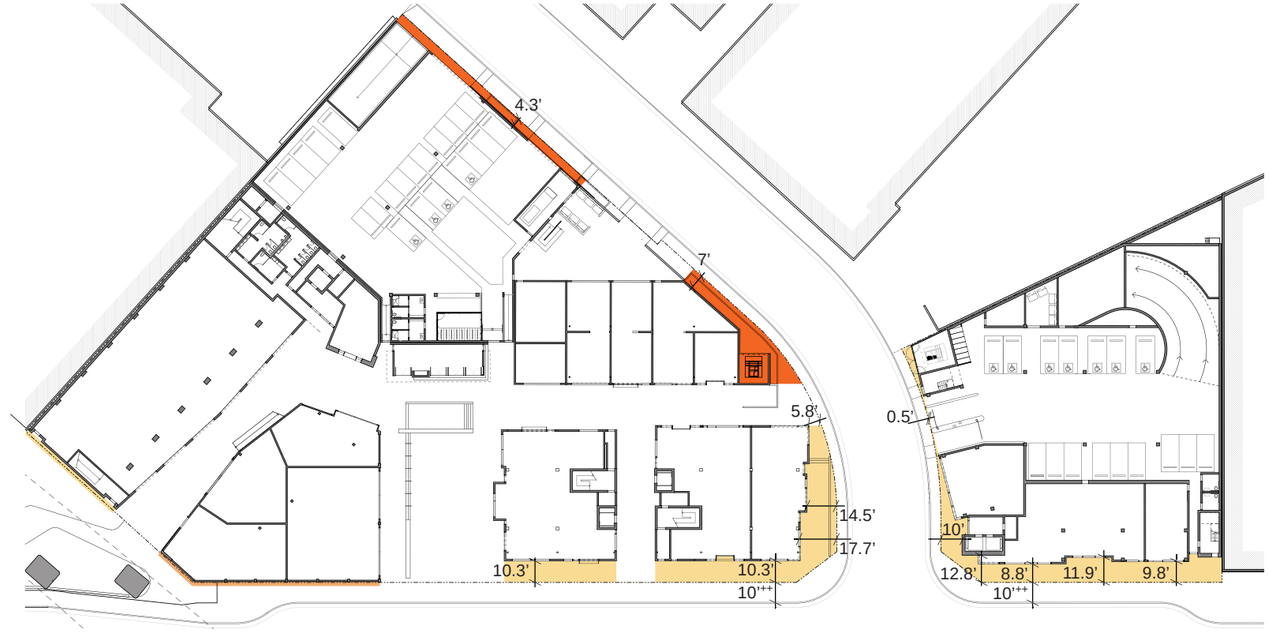
Zoning
Zoning for this site is intended to conform to the General Plan. The zoning pursuant to the *Platform Comprehensive Plan* is **Planned Development (PD) District.** The underlying Industrial General (IG) zoning for the project site is changed to PD along with adoption of the Comprehensive Plan. In combination with the PD zoning district, the Comprehensive Plan supports innovation in site planning and other aspects of project design, and more effective design responses to site features, uses on adjoining properties and other impacts that the underlying zoning code standards would produce without adjustment. The PD zoning district is applied to areas of existing large scale, multiple family residential and commercial complexes developed as a Planned Development zoning district, and sites suitable for similar large scale development. The PD zoning district is consistent with the General Corridor land use designation of the General Plan.

B. DEVELOPMENT STANDARDS

In addition to the development standards outlined herein, every land use and structure shall comply with applicable requirements of the Culver City Municipal Code (CCMC), Title 17, Zoning Code or as amended.

Pedestrian Setbacks

The project provides an ample pedestrian environment by providing undulating setbacks ranging from approximately 9’ to 13’ wide at the ground level along Washington Boulevard (Building A and B) as well as the provision of a 10’ wide public sidewalk that will be furnished with street trees, planters, tree grates, benches, bicycle racks, trash receptacles, wayfinding signage, and other street furniture consistent with the City’s Transit Oriented Development District Streetscape Plan. The pedestrian setback area provides for opportunities for amenities such as seating areas, landscape planters, as well as opportunities for outdoor dining.
The upper levels of the buildings along Washington Boulevard (Building A and B) overhang the ground floor, providing shaded entryways to the retail and restaurant spaces.



Building Setback Diagram
++ 10’ Public Right of Way Pedestrian Sidewalk

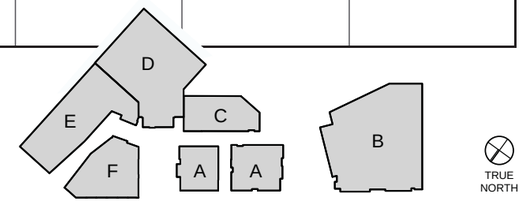
1. Building Setbacks

Building setbacks shall comply with the following:

Setbacks		Required
Street Facing Landmark Street*		
Building A	(min 5’-9” - max 17’-8”)	average 12’-0”
Building B	(min 0’-6” - max 10’-0”)	average 3’-6”
Building C		existing 7’-0”
Building D		existing 4’-4”
Metro Line Facing		
Building E		0’-0”
Building F		existing 0’-0”
Interior Lot Line / Side Yard		
Building B		0’-0”
Building D		0’-0”
Building E		0’-0”

* Setbacks are calculated after new 5’-0” sidewalk dedication.

Setbacks	Required					
Street Facing Washington Blvd						
	Ground Floor	Second Floor	Third Floor	Fourth Floor	Fifth Floor	Roof Level
Building A	10’-3’	5’-3”	8’-0”	5’-3”		
Building B	min 8’-9” max 12’-10” avg. 9’-9”	5’-0”	min 0’-9” max 5’-8” avg. 5’-4”	min 0’-9” max 5’-8” avg. 4’-7”	min 0’-9” max 5’-8” avg. 5’-4”	5’-8”
Building F	existing 0’-0”					



KEY PLAN

B. DEVELOPMENT STANDARDS

2. Building Heights

Buildings shall not exceed the maximum allowed height limit of 56'. Buildings heights within the Comprehensive Plan vary in height from one story to five story structures.

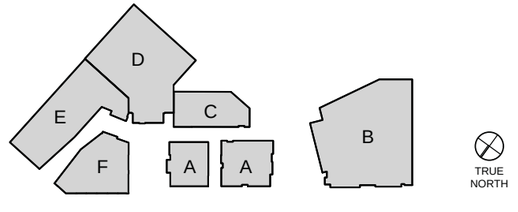
Height Limit	56 Feet*	5 Stories
Height per Building		
Building A	56 Feet	4 Stories
Building B	56 Feet	5 Stories
Building C	32 Feet	2 Stories
Building D	30 Feet	2 Stories
Building E	56 Feet	3 Stories
Building F	18 Feet	1 Stories

Roof-mounted mechanical equipment (e.g., air conditioning, heating, exhaust, and ventilation ducts, etc.), shall be screened from public view from adjoining public streets and rights-of-way. The method of screening shall be architecturally compatible with other on-site development in terms of colors, materials, and architectural style as determined by the Planning Manager.



View of Washington Boulevard

*Roof-mounted structures for the housing of mechanical equipment required to operate and maintain the structure, shall be allowed, up to a maximum of 13 feet 6 inches above the height of a building.
Structures for the housing of elevators and stairs shall be allowed up to a maximum of 16 feet above the roofline of the building.



KEY PLAN

B. DEVELOPMENT STANDARDS

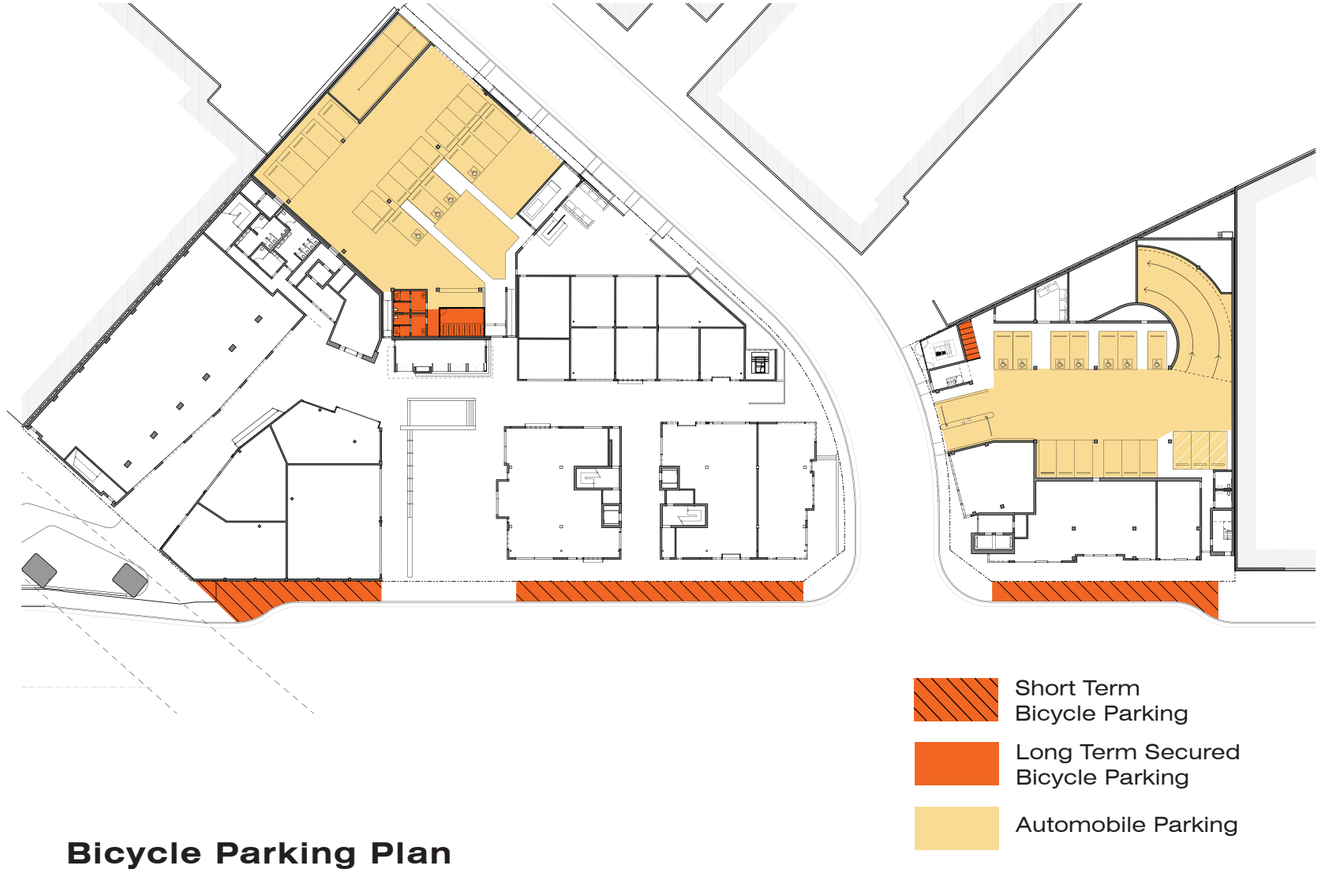
3. Parking

Vehicle Parking Plan

Parking for the project shall be provided in two separate above ground structures. The newly built parking structure on the corner of Landmark Street and Washington Boulevard (Building B) shall contain at least 219 parking stalls across five levels of covered parking and a roof level. The entire structure is accessed through an automatic entry system off of Landmark Street that will be activated by either a ticket or a key card system. Office users and store employees shall be prohibited from parking in the lower three levels of this structure, leaving these prime spaces to customers.

The second parking structure will be a rehabilitated existing structure located on the north side of Landmark Street (Building D) containing 93 parking stalls. This structure shall have ingress and egress off of Landmark Street. Valet services shall be provided, with drop off and pick up occurring on the first level and parking on the two levels above. There will be 33 spaces on the second level including 28 in tandem configuration and 38 spaces on the third level including 36 in tandem configuration. There will be 22 self-parking spaces on the first level.

Both parking structures will offer preferred parking for low emission vehicles (e.g. hybrid, alternative fuel and electrical automobiles) and carpool vehicles as required by the California Green Building Code (**CGBC**). Handicapped accessible spaces are provided per California Building Code (**CBC**) regulations.



Bicycle Parking Plan

Long term bike parking shall be provided within fully enclosed bicycle lockers in the newly built parking structure on the corner of Landmark Street and Washington Boulevard (Building B). These lockers shall be coin/card operated and available for the general public. Additional long term bike parking shall be available within a gated keycard operated area inside the parking structure on the main site (Building D). To facilitate employee and office worker bike commuting, a keycard protected shower shall be provided in the existing (Building D) parking structure and shall be available to anyone who works in the project and commutes by bike.
In addition short term bike racks shall be provided along Washington Boulevard in the public right of way.

B. DEVELOPMENT STANDARDS

Numerical Parking Requirements

Parking for the project site shall be provided at a ratio of 1 stall per 250 square feet of retail and restaurant floor area consistent with the Zoning Code parking requirements for shopping centers and 1 stall per 350 square feet of office floor area consistent with the Zoning Code parking requirements for office uses. Restaurant space over 25% of the combined retail and restaurant floor area shall be parked at a ratio of 1 stall per 100 square feet of floor area.
Outdoor dining areas up to 500 square feet per restaurant are covered under these parking requirements. Outdoor dining areas larger than 500 square feet per restaurant space including roof top dining at Building E shall be required to provide 1 stall per 250 square feet in excess of the initial 500 square feet.

Auto Parking	**Required**
Retail	1 Space per 250 s.f.
Restaurants up to 25% of the combined retail and restaurant floor area	1 Space per 250 s.f.
Restaurants over 25% of the combined retail and restaurant floor area	1 Space per 100 s.f.
Office	1 Space per 350 s.f.

Spaces Required		
Retail	27,057 s.f. / 250	108 Spaces
Restaurants up to 25% of the combined retail and restaurant floor area	10,435 s.f. / 250	42 Spaces
Restaurants over 25% of the combined retail and restaurant floor area	4,253 s.f. / 100	43 Spaces
Outdoor Dining*	2,050 s.f. / 250	8 Spaces
Office+	38,732 s.f. / 350	111 Spaces
Total		**312 Spaces**

Spaces Provided	
Building B	219 Spaces
Building D	
Regular	22 Spaces
Valet	71 Spaces
Total	**312 Spaces**

* area in excess of 500 square feet per restaurant tenant (including excess area of Building E roof deck dining)

\+ Office floor area includes Art Studio floor area in Building B parking structure

Accessible Parking Requirements		
Building B	Total Spaces Required	219 Spaces
	Total Accessible Spaces Required	7 Spaces
	Van Accessible Required*	2 Spaces
	Clean Air Vehicle Spaces Required*	24 Spaces
Building D	Total Spaces Required	93 Spaces
	Total Accessible Spaces Required	4 Spaces
	Van Accessible Required*	2 Spaces
	Clean Air Vehicle Spaces Required	8 Spaces

* Required spaces listed are based on Comprehensive Plan and exceed requirements of California Building Code Chapter 11B and California Green Building Code Chapter 5.

Bicycle Parking Requirements	
Short Term Bicycle Parking Required*	36 Spaces
Long Term Bicycle Parking Required+	23 Spaces

* Short Term Bicycle Parking in the form of bike racks is provided offsite in public right of way along Washington Boulevard. One rack holds two bicycles.

\+ Long Term Bicycle Parking is provided onsite only, in form of secured lockers and a gated storage area inside the parking structures. See page 11 for detailed location.

B. DEVELOPMENT STANDARDS

4. Loading Plan

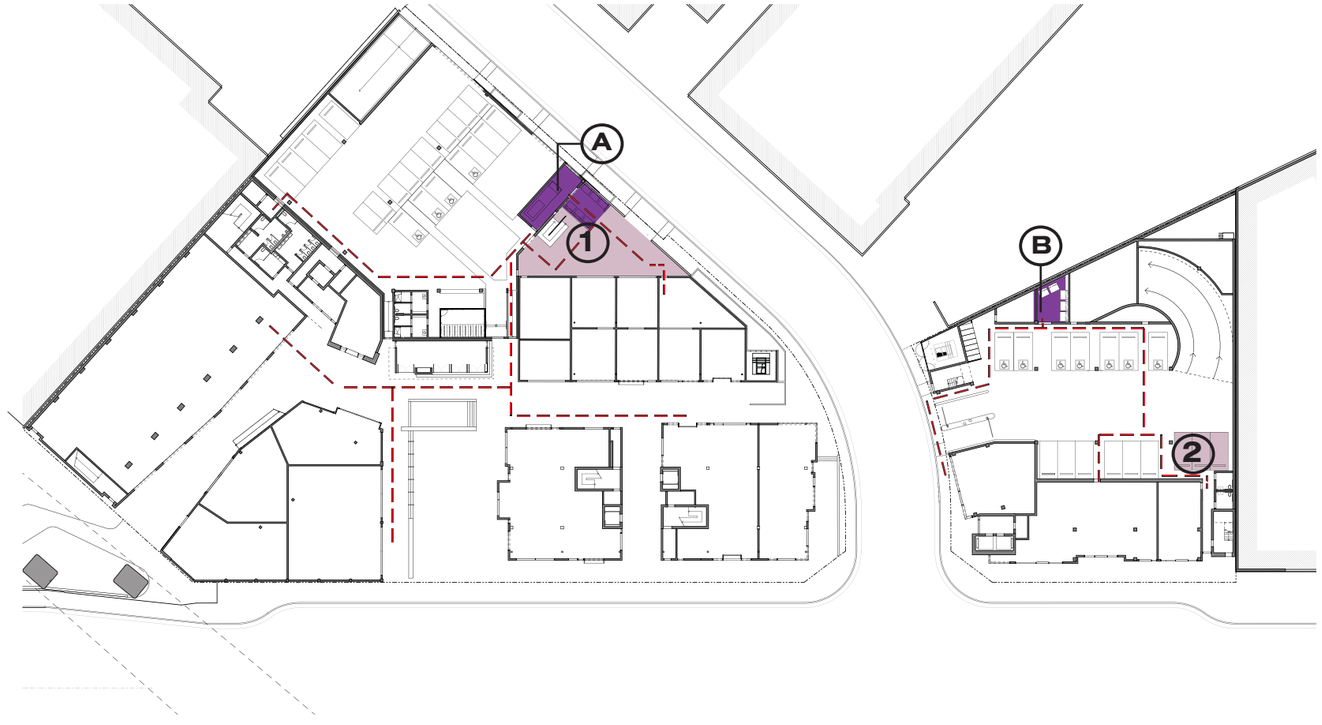
Deliveries shall only be received in two dedicated locations. Loading area (1) is located behind Building C and serves the main development site, measures 1,500 square feet and is able to accommodate large trucks. Loading area (2) is located inside the new parking structure Building B and accommodates smaller, van size delivery trucks (e.g. UPS delivery trucks).

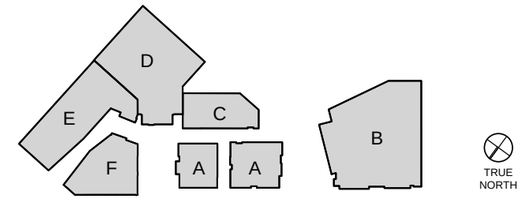
5. Trash and Recycling Management Plan

Trash and recycling enclosures shall be provided in two locations.
The main development site shall be served by a trash compactor housed inside a dedicated room within the parking structure as well as dedicated recycling area within the service yard (Area A). Building B shall be served by a combined recycling and trash room inside the parking garage (Area B). This shall be accessed by smaller trucks which shall move the bins to the side of Landmark Street for pickup. Both areas shall be gated and visually shielded from public view from adjoining public streets and rights-of-way.
All trash shall be collected by on-site maintenance at the tenant suite at the end of each business day and collectively disposed or recycled. The development fosters recycling of reusable materials (e.g. cardboard, plastics and aluminum) and shall provide dedicated and easily accessible bins in the above outlined locations.

6. Signage

To ensure that signs for the project are uniquely designed and compatible with the overall architectural theme of the project, all signage shall be processed through a Master Sign Program pursuant to Zoning Code Section 17.330.050.D.2 or as amended.





KEY PLAN

C. PERMITTED USES

1. General Provisions

The project lies along the southerly edge of Washington Boulevard and forms its southerly street wall, contributing in a major way to the character of the boulevard. The project shall be pedestrian oriented and include a mix of permitted uses to draw patrons from the surrounding neighborhoods as well as from the adjacent light rail station. The ground floor shall contain pedestrian oriented uses including retail, eating and drinking establishments, and artisan businesses. Restaurant uses shall not exceed more than 35% of the commercial space. Office uses and non-pedestrian oriented uses shall be located on the upper levels. The open areas of the project shall include outdoor dining and an open air courtyard with community oriented uses such as live music, farmers markets and fashion events.

2. Allowed Uses and Permit Requirements

The following is a complete list of uses that shall be allowed within the Platform Comprehensive Plan.

LAND USE [1]	PERMIT REQUIREMENT P - Permitted Use AUP - Administrative Use Permit[2] CUP - Conditional Use Permit[2]	SEE SPECIFIC USE REGULATIONS OF THE ZONING CODE
Alcoholic beverage sales	AUP	17.400.015.B
Artisan shops	P	
Automated teller machines (ATMs)	P	17.400.025
Banks and financial services[6]	P	
Bars, night clubs	CUP	
Broadcast studios[5]	P	
General retail stores	P	
Health/fitness facilities[5]	CUP	
Indoor amusement/entertainment facilities	P	
Internet Café	P	
Media production – Indoor support facilities[5]	P	
Medical services – Office/Clinics[5]	P	
Offices[5]	P	
Outdoor retail sales and display[3]	AUP	17.400.075
Parking facilities	P	
Personal services[6]	P	
Pet shop	P	
Public recreational and cultural facilities	P	
Restaurants	P	
Restaurants, outdoor dining	P	
Specialized schools[4][6]	AUP	
Studios – art, dance, music, photography, etc.	P	
Telecommunications facilities, cellular[5]	AUP	17.400.010
Theaters	P	

(1) See Article 7 of the Culver City Zoning Code for definitions of the land uses listed.

(2) See Chapter 17.530 of the Culver City Zoning Code for specific permit requirements

(3) Ancillary to a primary retail use.

(4) Only Specialized non-degree granting schools offering instruction in one of the following: art, ballet and other dance, bartending, computer and electronics, drama, driver education, language or music.

(5) Use shall not be permitted on the ground floor.

(6) Use shall not be permitted on the ground floor in tenant spaces fronting Washington Boulevard or the central courtyard space.

3. Allowed Special Events and Temporary Events

The following types of special events and temporary events, either outdoor or indoor, public or private shall be permitted to take place within the open central courtyard area or the rooftop level of the two parking structure(s) subject to the provisions of Zoning Code Chapter 17.520 “Temporary Use, Special Event, and Temporary Event Permits” and as outlined below:

1. Markets and Fairs: Events including farmers markets (food, flower and crafts), food events, arts and craft fairs, small sporting events (i.e. bocce ball, ping pong), incidental to the center (no seating necessary) shall be allowed up to 52 days per calendar year subject to review and approval by the Planning Division. A special event permit may be required for these types of events as determined by the Planning Manager. These types of events shall be subject to a conformance review with the adopted Comprehensive Plan and approval by the Planning Division prior to the event taking place. Conditions of approval may be placed on the special event to ensure conformance with the standards contained herein, compatibility with adjacent uses, and compliance with any other applicable City requirements for special events.

2. Performances and Public Events: Events including carnivals, concerts, live entertainment, fashion shows, movie screenings and other similar events designed to attract a large crowd and involves seating for the public shall be allowed up to 24 days per calendar year. These events must demonstrate provisions of adequate parking. A special events permit is required for these types of events. Conditions of approval may be placed on the special event to ensure conformance with the standards contained herein, compatibility with adjacent uses, and compliance with any other applicable City requirements for special events.

3. Private Events: Events that are privately held including weddings and banquets shall be allowed up to 24 days per calendar year. These events must demonstrate provisions of adequate parking and must be held when office uses are not in operation (i.e. weekday evenings or weekends). A special events permit is required for these types of events. Conditions of approval may be placed on the special event to ensure conformance with the standards contained herein, compatibility with adjacent uses, and compliance with any other applicable City requirements for special events.



Fashion show event.

4. Outdoor Dining

Outdoor dining is key contributor to the interactive pedestrian atmosphere which will stimulate the shopping experience. Areas have been identified, as shown on the following diagram, where outdoor dining may take place. Multiple areas are open to Washington Boulevard further activating the pedestrian orientation and environment along this frontage.
The following diagram highlights the allowable areas for outdoor dining.



Design and Operational Standards

- An unobstructed minimum 4 foot (4’-0”) clear wide pedestrian pathway shall be maintained at all times between the outside boundary of any outdoor dining areas and any obstruction.
- The design of furniture, barriers and equipment to be used within any outdoor dining area shall be high quality and harmonious and compatible with the overall architecture of the project as well as any site furniture provided by the development.
- No additional canopies, trellises, or awnings are permitted. Inclement weather enclosures shall be allowed provided the enclosure is constructed of clear glass folding or stacking panels that can be stored unobtrusively within the interior of the tenant space. Plastic or acrylic enclosures of any kind shall not be permitted.
- Umbrellas shall have a minimum vertical clearance of 6’8” and shall not exceed a maximum height of 13’-0”.
- Portable heaters are subject to prior Landlord and City approval and shall be of uniform design. They shall not project beyond the limit of the outdoor dining area and shall require written approval of the City of Culver City Fire Marshal prior to placement.
- Establishments that serve alcoholic beverages in the outdoor dining area shall provide a physical barrier. No barrier is required if alcohol will not be served. Barriers shall not exceed three feet-six inches (3’-6”) in height. All barrier systems shall maintain at least 70% transparency.
- All outdoor dining areas shall be accessible to the disabled in accordance with ADA standards.
- Outdoor dining areas shall be operated in a manner that meets all requirements of the Los Angeles County Health Department.
- The outdoor dining area shall be kept clear of litter, food scraps, and soiled dishes and utensils at all times. Trash receptacles shall be provided in outdoor dining areas used for consuming take-out items.

Review Process
All proposed outdoor dining areas shall be subject to a conformance review with the adopted Comprehensive Plan and approval by the Planning Division prior to installation and operation. Conditions of approval may be placed on outdoor dining areas to ensure conformance with the standards contained herein, compatibility with adjacent uses, and any other applicable City requirements.

D. ADMINISTRATION

Relationship to Other Regulations

This Comprehensive Plan provides policies, standards and regulations guiding the development the project identified in Section 01, Project Description. Specific topics not otherwise addressed or provided in this Comprehensive Plan shall be governed by the Culver City Municipal Code. No provision of this Comprehensive Plan is intended to repeal, abrogate, annul, impair, or interfere with any existing ordinance, resolutions, or policy except: a) as specifically repealed by the adoptions of this Comprehensive Plan; or b) where this Comprehensive Plan's provisions are more precise or restrictive than the existing Municipal Code.

Where provisions of this Comprehensive Plan impose more restrictive regulations than required by any other ordinance, resolution or policy, the provisions of this Comprehensive Plan shall govern.

Amendments

Modifications to the Comprehensive Plan shall be pursuant to the Culver City Zoning Code, Section 17.560.025 – Comprehensive Plan Modifications, Major and Minor or as amended.

03

SUSTAINABILITY

SUSTAINABILITY

Energy saving and sustainable design is integral to the project. It is incorporated throughout in the building systems and in the choice of materials. The project incorporates green building design in many ways as demonstrated in the list below, which is categorized into three main categories: conservation; energy efficiency; carbon emission reduction

Conservation:

In an effort to promote the conservation, reduction, reuse, and recycling of renewable and non-renewable resources Platform is actively participating in this endeavor by adopting the following:

- Saving existing structures for adaptive re-use where possible, such as the renovated Building C, the refurbished Parking Structure (Building D) and the modified warehouse (Building F).
- Recycling of building materials during demolition of existing structures.
- Using non-wood alternatives for exposed wood products such as Resysta (simulated wood manufactured from rice husks) in the wood decks.
- Using local manufactured and recycled products where possible.
- Storm Water Filtration systems.
- Permeable exterior paving surfaces to reduce storm water run-off

Energy Efficiency:

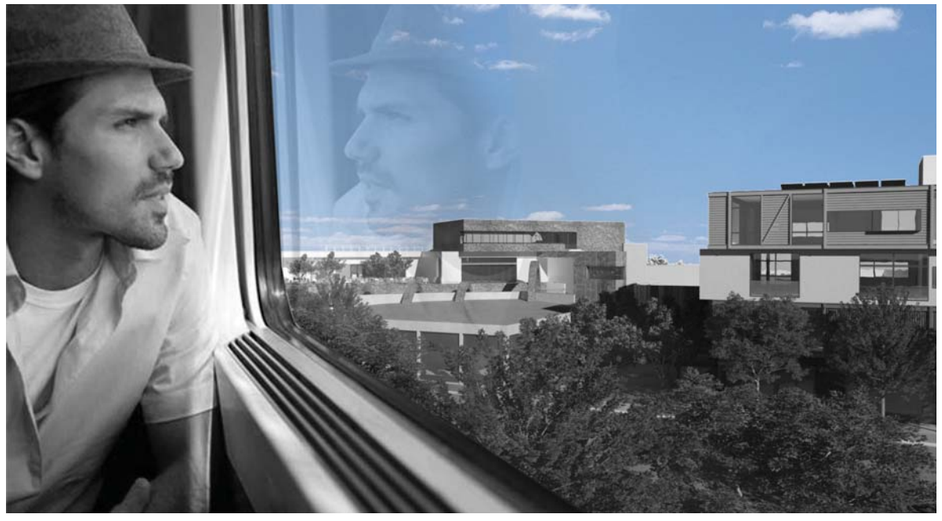
Below is a list of energy efficient and sustainable specifications that have been used and incorporated into Platform:

- Photovoltaic electricity generation
- Low flow fixtures and low consumption urinals
- Landscape with drought tolerant vegetation
- Green-screen walls systems
- Living green walls to promote thermal stability
- Irrigation timers with rain sensors
- Dual low emissivity Glazing
- High reflective roof material
- High efficiency heating and air conditioning systems

Carbon emission reduction:

Below is a list of Carbon emission reduction elements that have been incorporated into Platform:

- Bicycle racks spread out throughout the site and bicycle facilities that include safe lockable areas and bathroom and showers facilities. Employees and office workers will have electronic card access to these facilities to promote riding to work.
- Washington Boulevard will be widened to incorporate a new bicycle lane.
- Developer participation in the start up of a shuttle service that will loop from the Hayden Tract to the Expo Station and Platform and then to Downtown Culver City.
- Preferred parking for low emission vehicles and carpool vehicles.



View from Metro Train towards project
(RENDERING FOR ILLUSTRATIVE PURPOSES ONLY)

04

SITE

SITE

The project site is located at the intersection of Washington Boulevard and National Boulevard adjacent to the newly constructed Metro light rail EXPO line, within 500 feet of the Culver City Expo station.

It is formed by five tied parcels encompassing 2.06 acres, and abuts commercial warehouses.

The site was previously occupied by automotive sales and services uses. The project is rehabilitating and reusing parts of the existing building (i.e. a warehouse and repair shop).

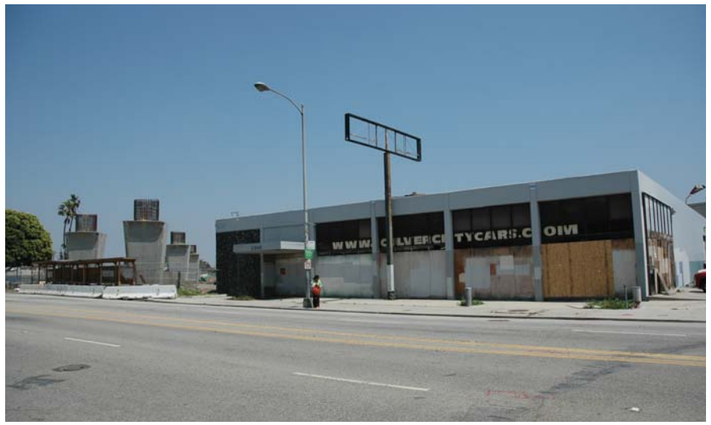
Railroads and trains have had a long history with the site. The corridor of the Expo Line has been historically utilized by The Pacific Electric Railway.



AERIAL VIEW



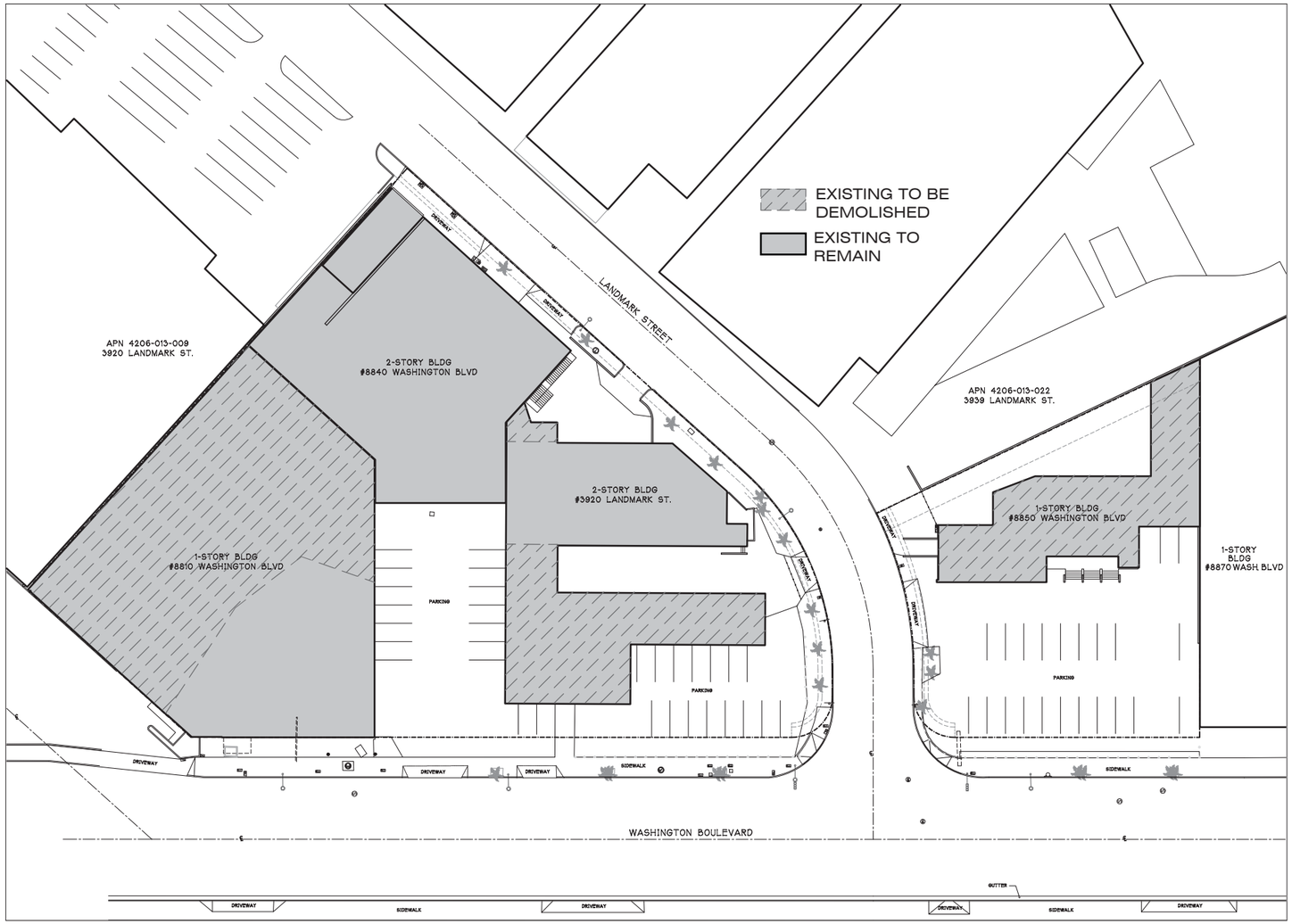
View of Landmark Site.



View looking South East from Washington Blvd.



View looking South East towards future courtyard entrance.



SITE PLAN OF EXISTING BUILDINGS



KEY PLAN

TRUE NORTH

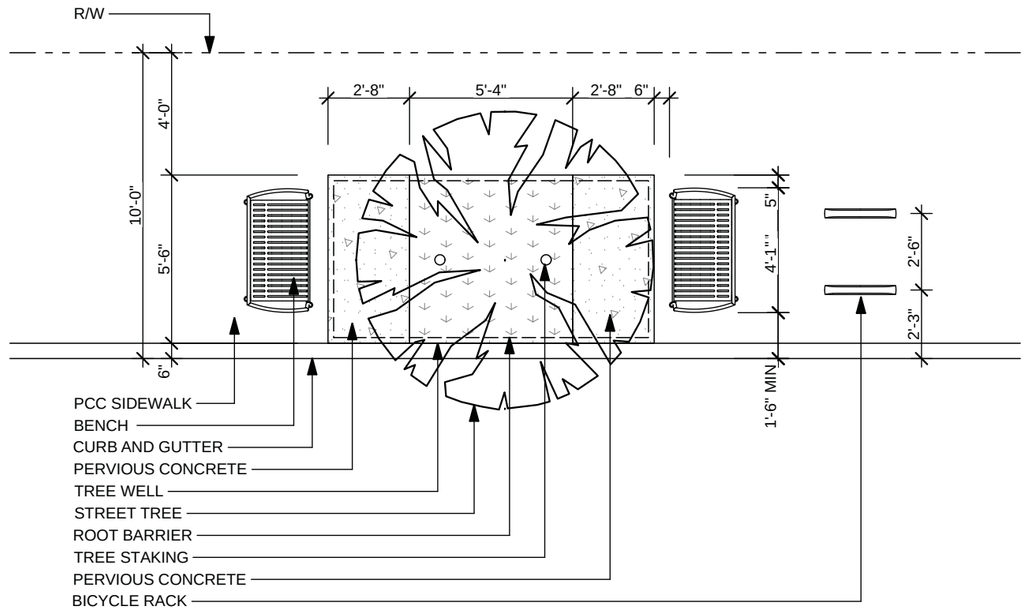
0 16' 32' 64'

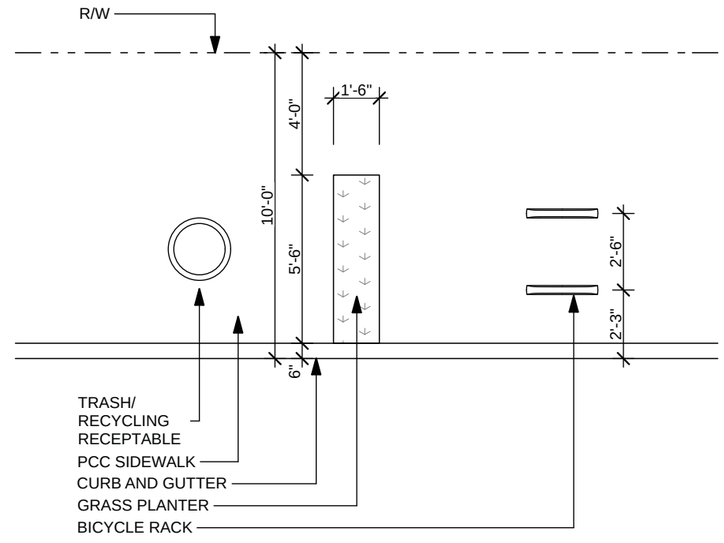
Scale: 1" = 40'

SITE PLAN

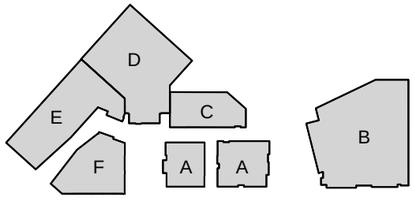
NOTE:

Street furniture shall be consistent with the City's Transit Oriented Development District Streetscape Plan.
Final location, type, and size of tree wells to be determined by the City prior to building permit issuance.





WASHINGTON BOULEVARD



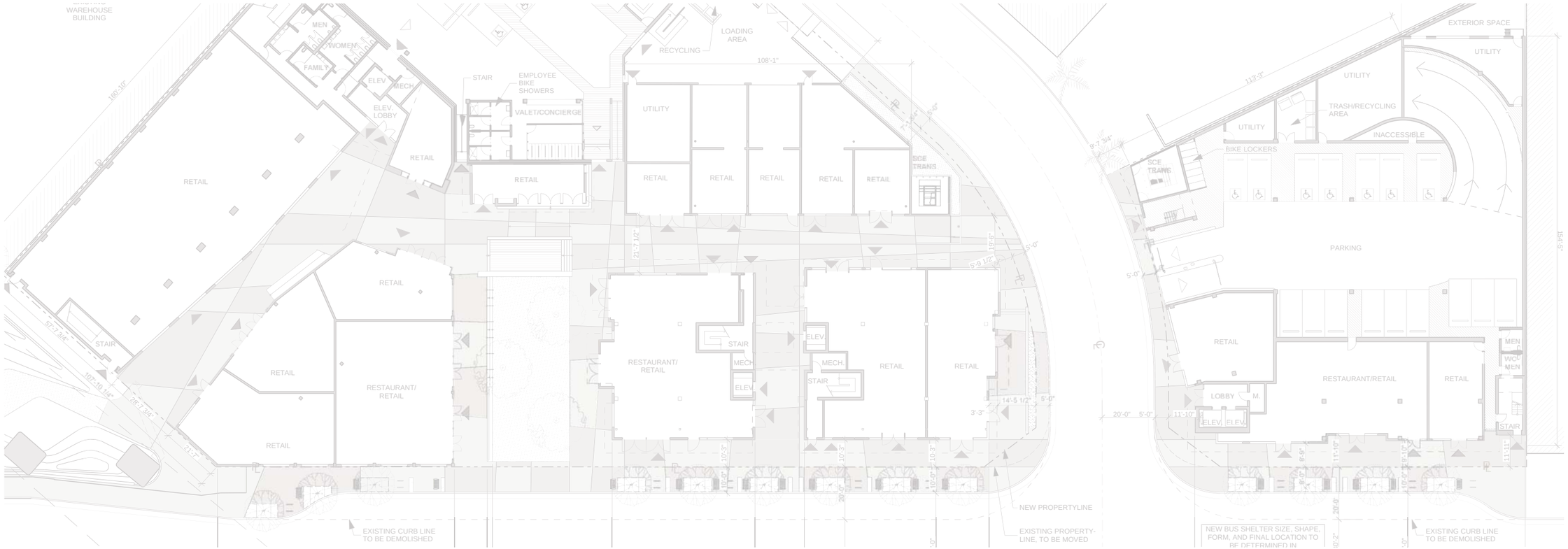
KEY PLAN

TRUE NORTH

0 2' 4' 8'

Scale: 1" = 5'

TYPICAL TREE WELL DETAIL





TRUE NORTH

0 16' 32' 64'

Scale: 1" = 40'

SITE ELEVATION

05

BUILDING A

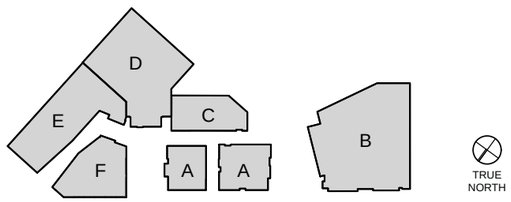
BUILDING A

This four story building consists of ground floor retail with three stories of office above. The ground floor retail opens onto the wide sidewalk on Washington Boulevard as well as the central interior courtyard and paseo.
The building is split into two separate buildings on the lower levels allowing pedestrians to enter the project site at multiple locations along Washington Boulevard. The two building sides are connected by sky-bridges, to accommodate the building circulation while introducing more light into the newly created open air atrium space.
The retail is detailed in textured, warm colored metals and glass. It is an inviting palette designed to enhance the trees and plants found in the courtyard.
The upper stories cantilever out overhead and offers protection from the weather.

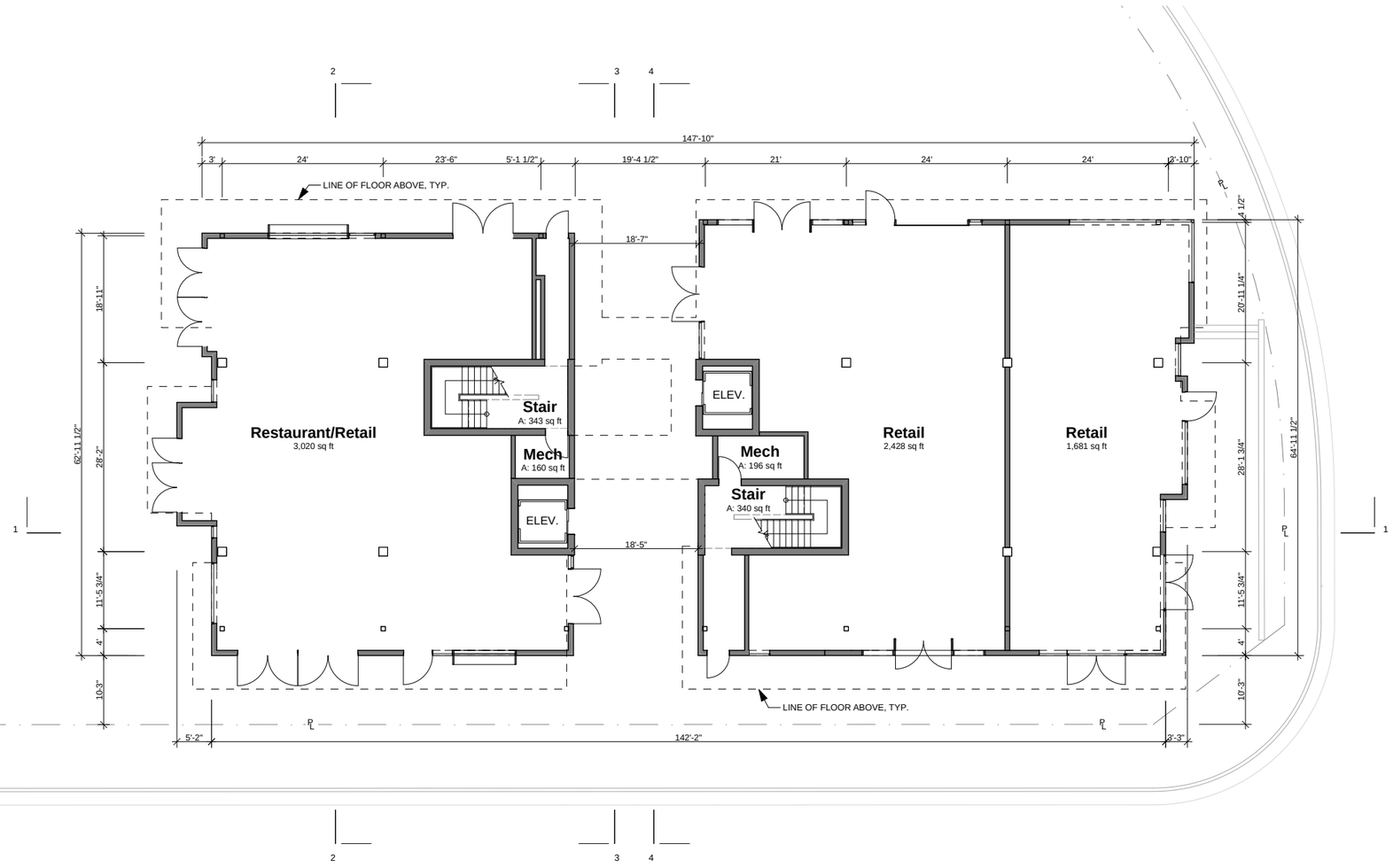
Above the retail spaces are three stories of office spaces. The design of the buildings above is meant to reference the site's location along the Red Car line by referencing a series of stacked box cars. The individual units combine to create a harmonious and varied facade. The stacking of the box cars provides visual relief to the building mass.

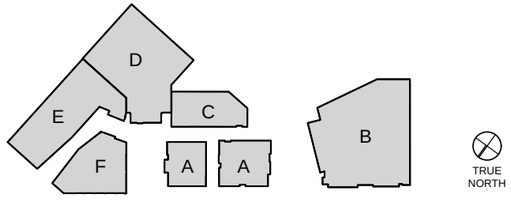


View of Building A



KEY PLAN





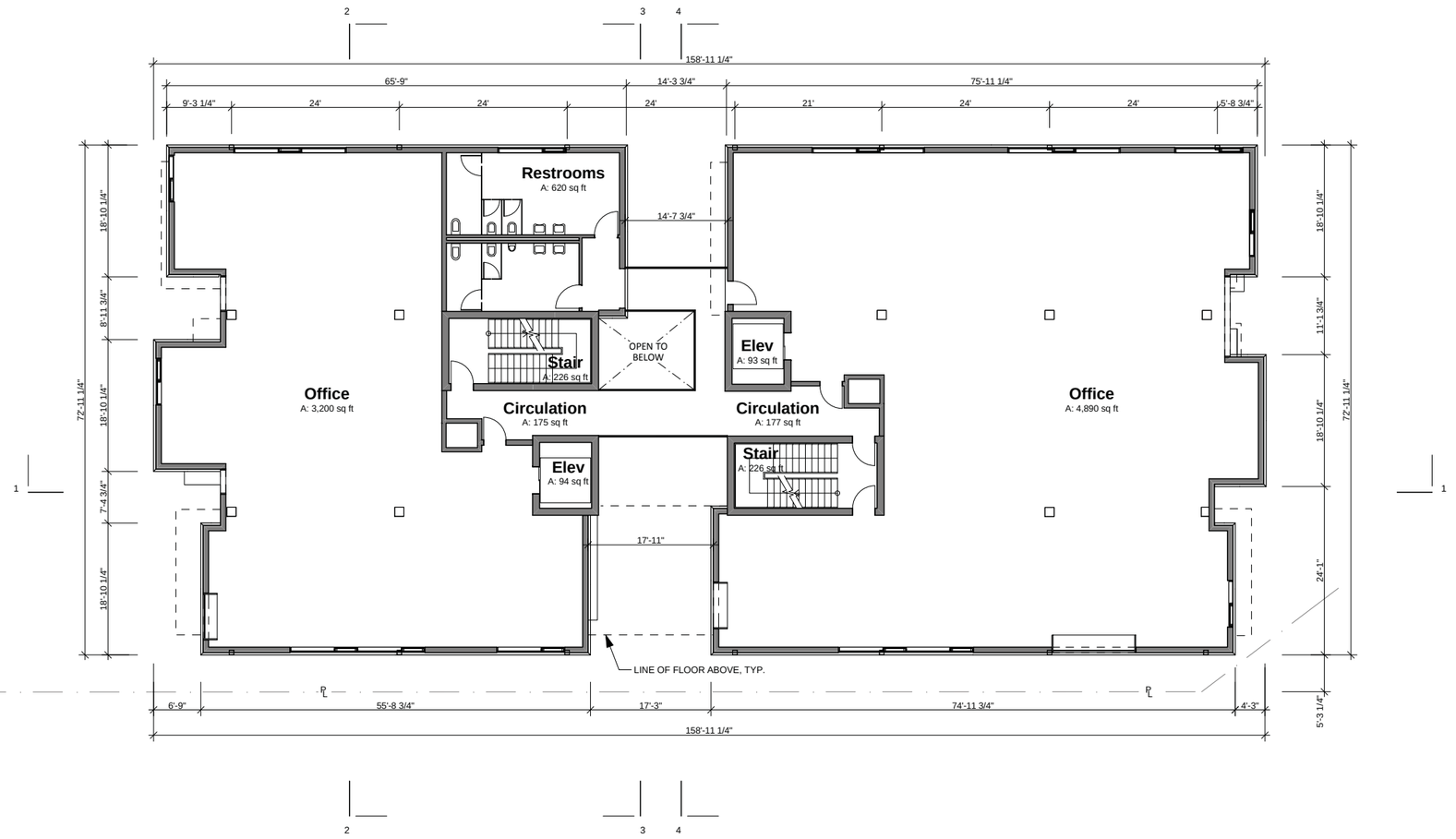
TRUE NORTH

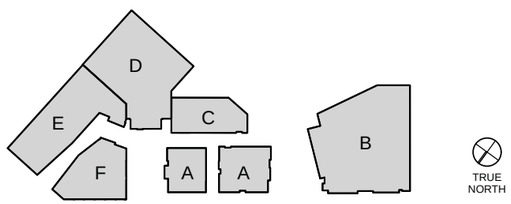
KEY PLAN

0' 10' 20' 40'

Scale: 1" = 20'

BUILDING A: FIRST FLOOR PLAN





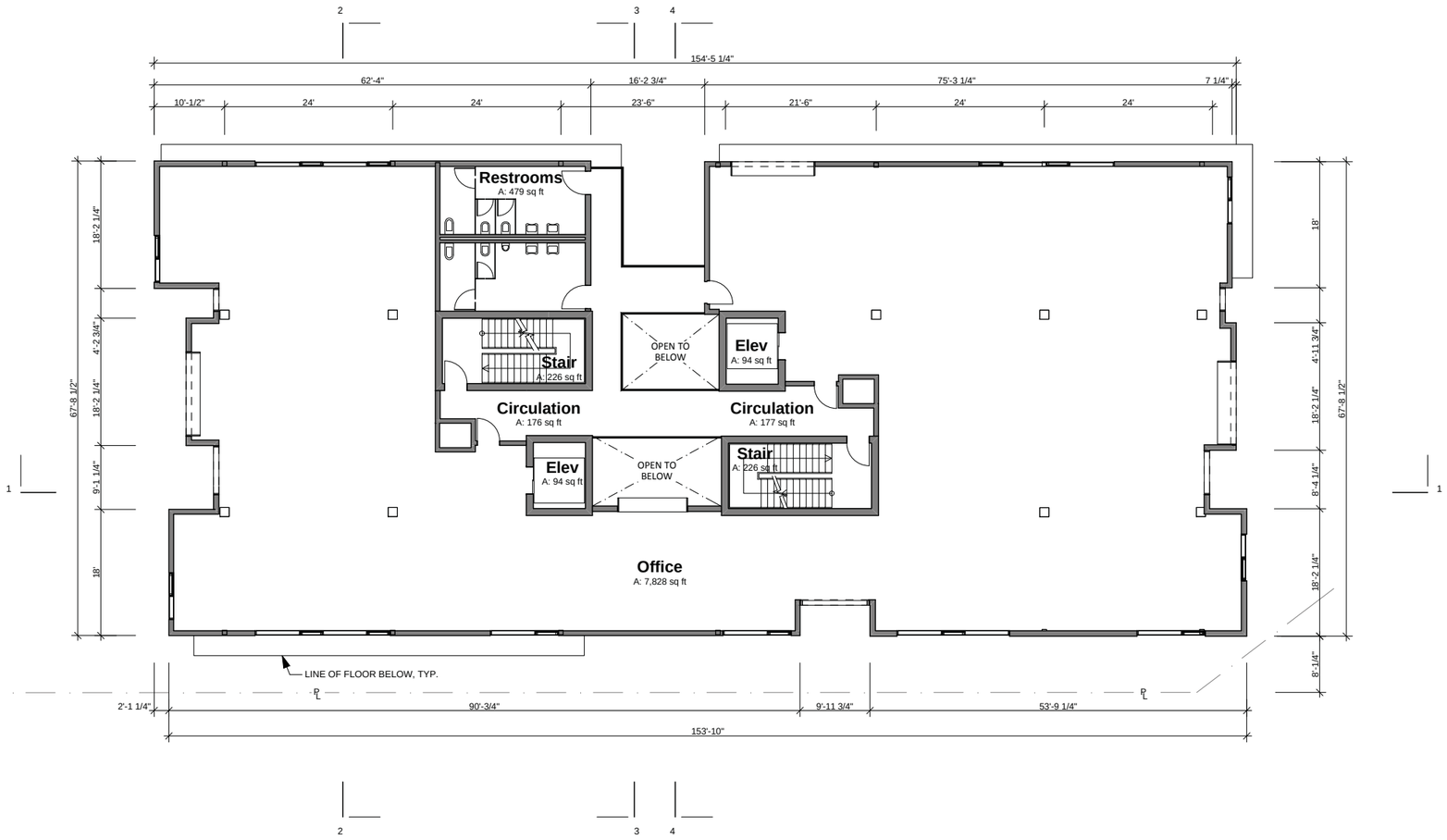
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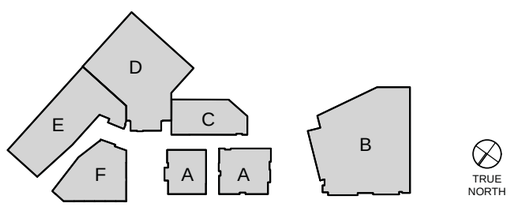
KEY PLAN

0' 10' 20' 40'

Scale: 1" = 20'

BUILDING A: SECOND FLOOR PLAN





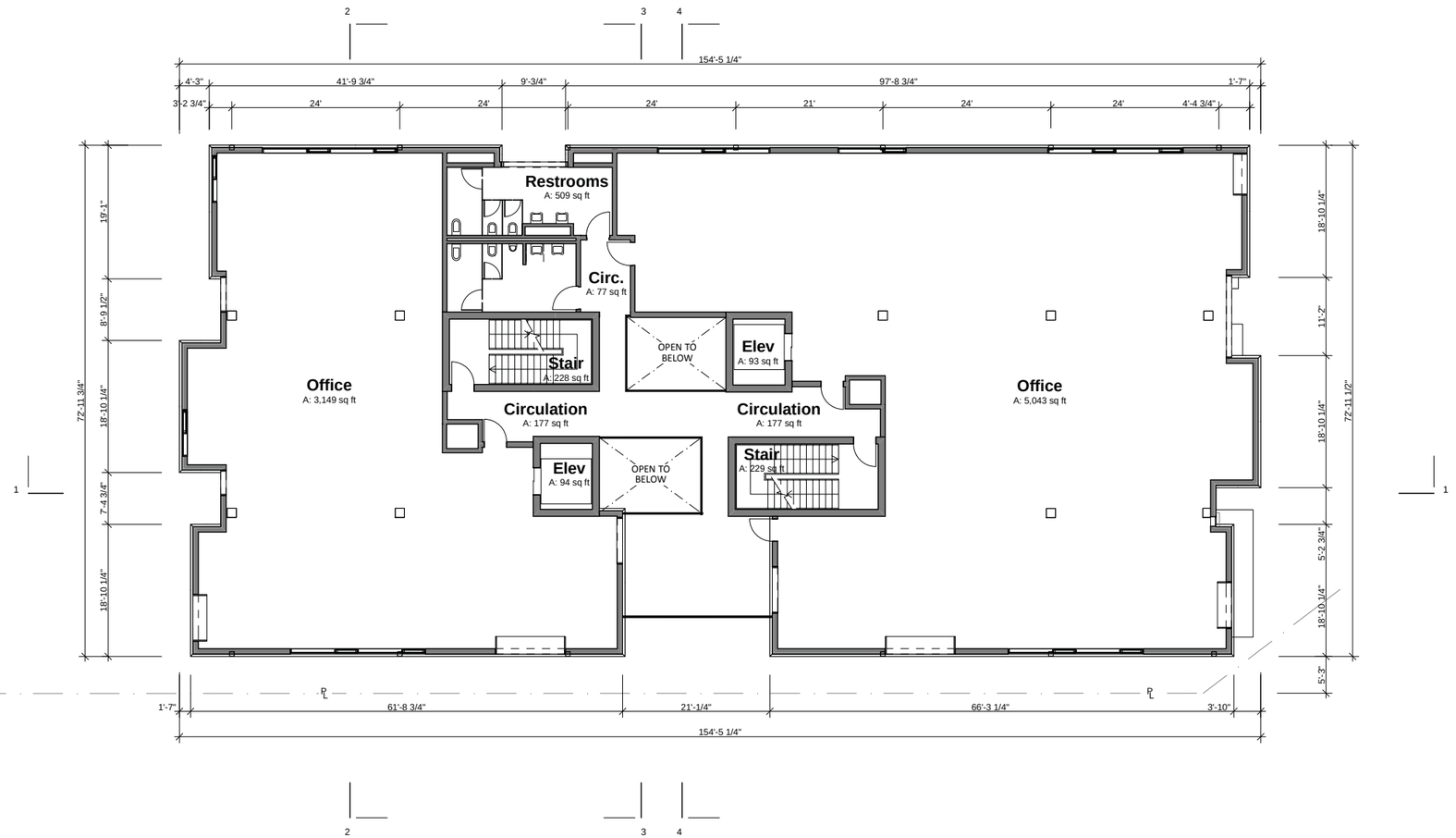
TRUE NORTH

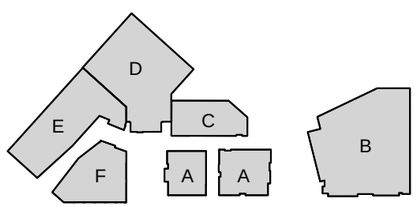
KEY PLAN

0' 10' 20' 40'

Scale: 1" = 20'

BUILDING A: THIRD FLOOR PLAN





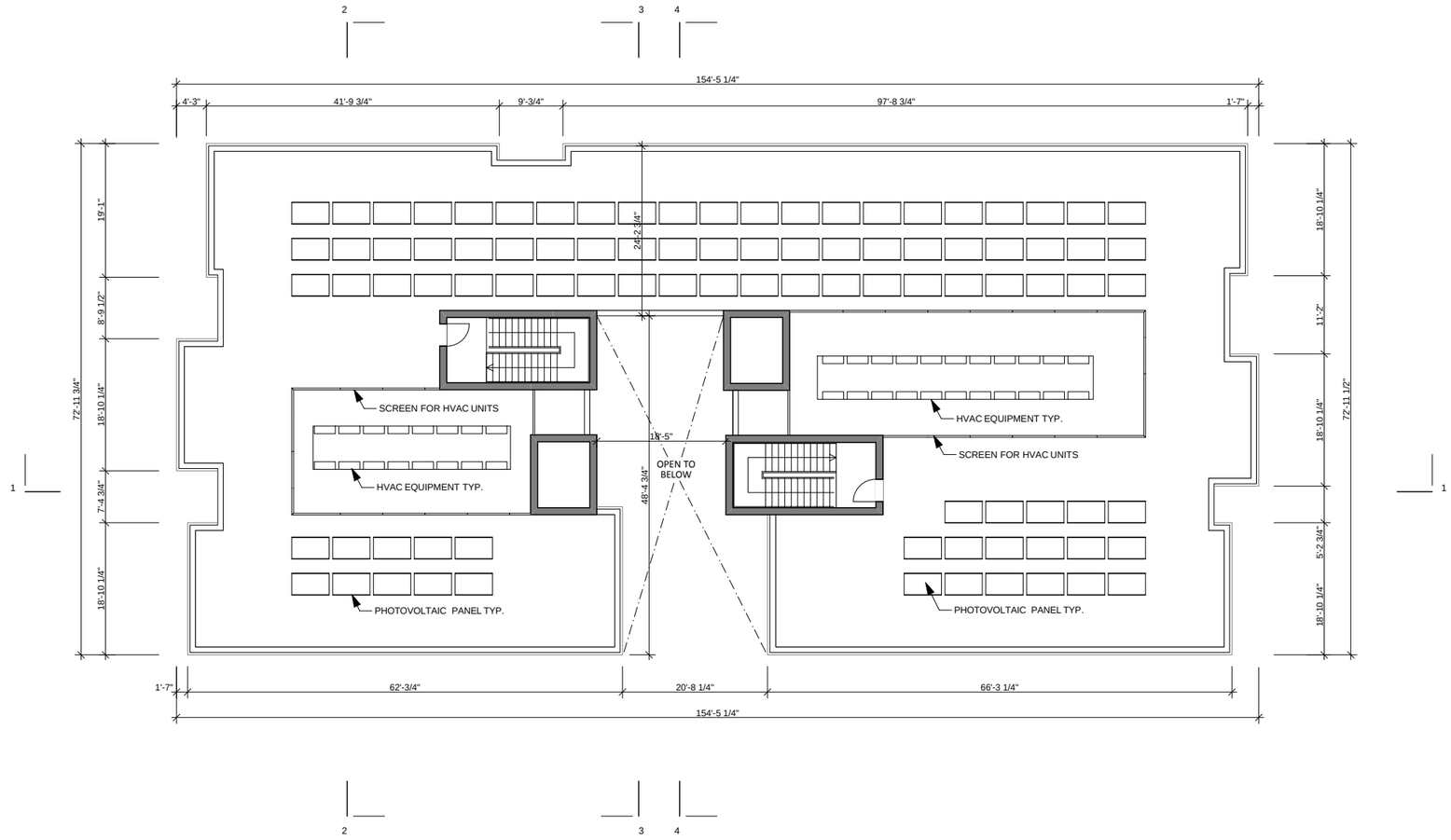
TRUE NORTH

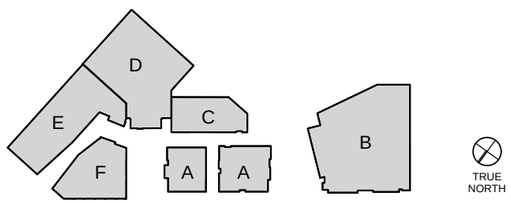
KEY PLAN

0' 10' 20' 40'

Scale: 1" = 20'

BUILDING A: FOURTH FLOOR PLAN





KEY PLAN

0’ 10’ 20’ 40’

Scale: 1” = 20’

BUILDING A: ROOF PLAN



*DISTANCE TO PROPERTY LINE VARIES PER PLANS

South Elevation



*DISTANCE TO PROPERTY LINE VARIES PER PLANS

North Elevation

1. Photovoltaic Panels
2. Stucco - “Iron Fixture” (DE6384) Paint Finish
3. Vertical Corrugated Metal Siding - “Iron Fixture” (DE6384) Paint Finish
4. Vertical Corrugated Metal Siding - “Lunar Landing” (DE6241) Paint Finish
5. Vertical Corrugated Metal Siding -“Watermist” (DE6240) Paint Finish
6. Blue Patina Metal Panel
7. Steel Guardrail “Iron Fixture” (DE6384) Paint Finish
8. Low-E Glazing, Typ.

0’ 10’ 20’ 40’

Scale: 1” = 20’

BUILDING A ELEVATIONS



*DISTANCE TO PROPERTY LINE VARIES PER PLANS

West Elevation



*DISTANCE TO PROPERTY LINE VARIES PER PLANS

East Elevation

0' 10' 20' 40'

Scale: 1" = 20'

1. Photovoltaic Panels
2. Stucco - "Iron Fixture" (DE6384) Paint Finish
3. Vertical Corrugated Metal Siding - "Iron Fixture" (DE6384) Paint Finish
4. Vertical Corrugated Metal Siding - "Lunar Landing" (DE6241) Paint Finish
5. Vertical Corrugated Metal Siding -"Watermist" (DE6240) Paint Finish
6. Blue Patina Metal Panel
7. Steel Guardrail "Iron Fixture" (DE6384) Paint Finish
8. Low-E Glazing, Typ.

BUILDING A ELEVATIONS



*DISTANCE TO PROPERTY LINE VARIES PER PLANS

Elevation Section 3



*DISTANCE TO PROPERTY LINE VARIES PER PLANS

Elevation Section 4

0' 10' 20' 40'

Scale: 1" = 20'

1. Photovoltaic Panels
2. Stucco - "Iron Fixture" (DE6384) Paint Finish
3. Vertical Corrugated Metal Siding - "Iron Fixture" (DE6384) Paint Finish
4. Vertical Corrugated Metal Siding - "Lunar Landing" (DE6241) Paint Finish
5. Vertical Corrugated Metal Siding -"Watermist" (DE6240) Paint Finish
6. Blue Patina Metal Panel
7. Steel Guardrail "Iron Fixture" (DE6384) Paint Finish
8. Low-E Glazing, Typ.

Building A - Boxcar



Photovoltaic Panels 1



Stucco - “Iron Fixture” (DE6384) Paint Finish 2



Low-E Glazing, Typ. 8





Vertical Corrugated Metal Siding - “Iron Fixture” (DE6384) Paint Finish 3





Vertical Corrugated Metal Siding - “Lunar Landing” (DE6241) Paint Finish 4





Vertical Corrugated Metal Siding -“Watermist” (DE6240) Paint Finish 5



Blue Patina Metal Panel 6



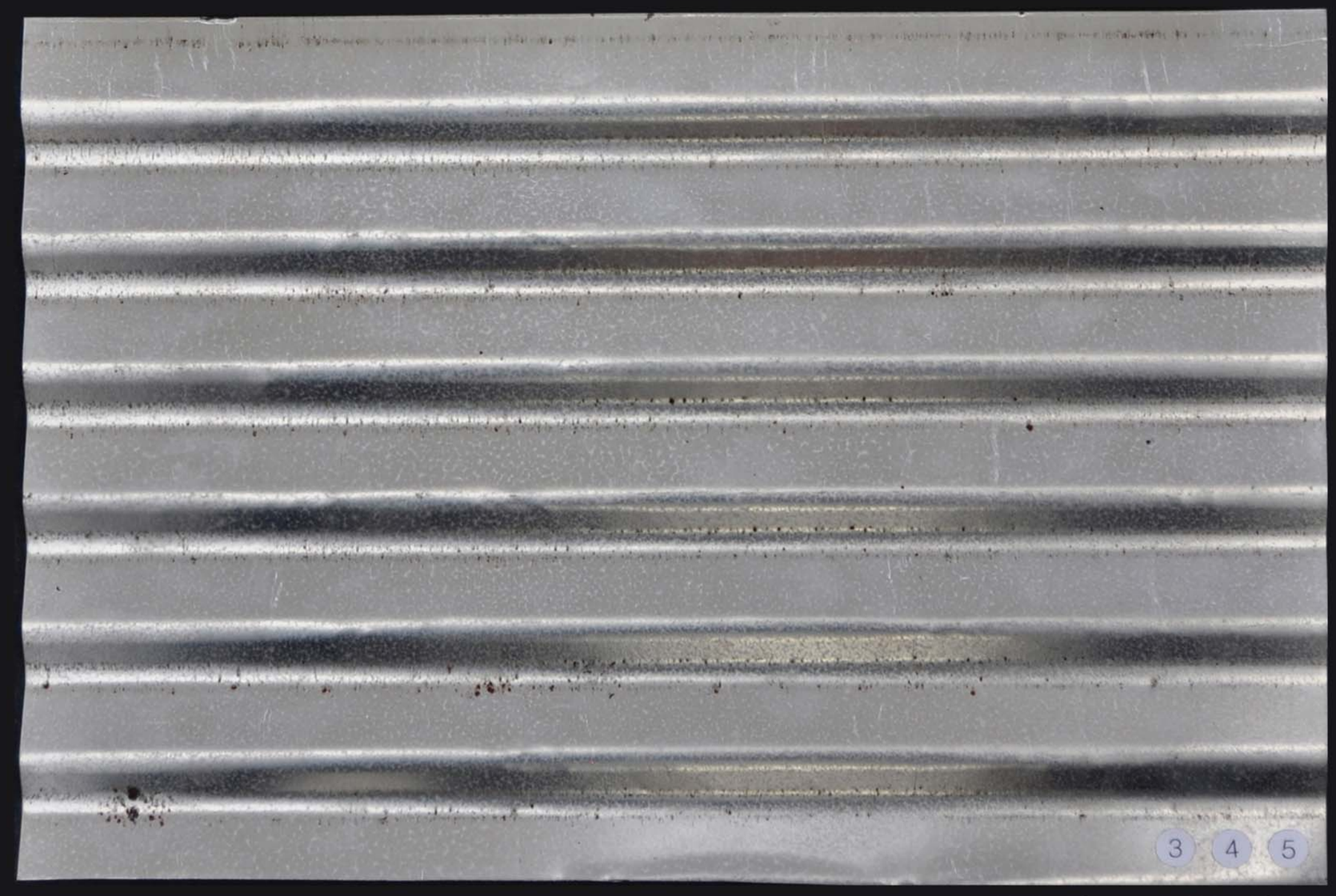
Blue Patina Metal Panel 6



Steel Guardrail “Iron Fixture” (DE6384) Paint Finish 7

BUILDING A MATERIAL BOARD

Building A - Boxcar



3 4 5

Vertical Corrugated Metal Siding



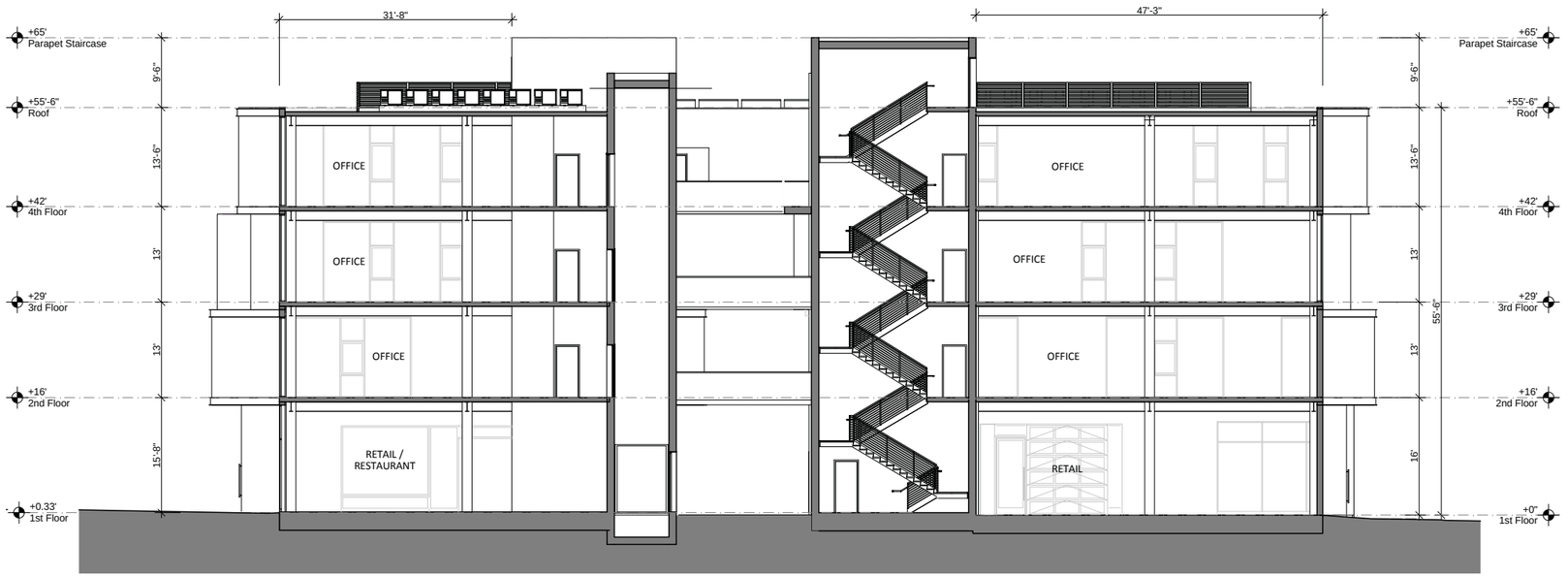
7

Steel Guardrail “Iron Fixture”
(DE6384) Paint Finish

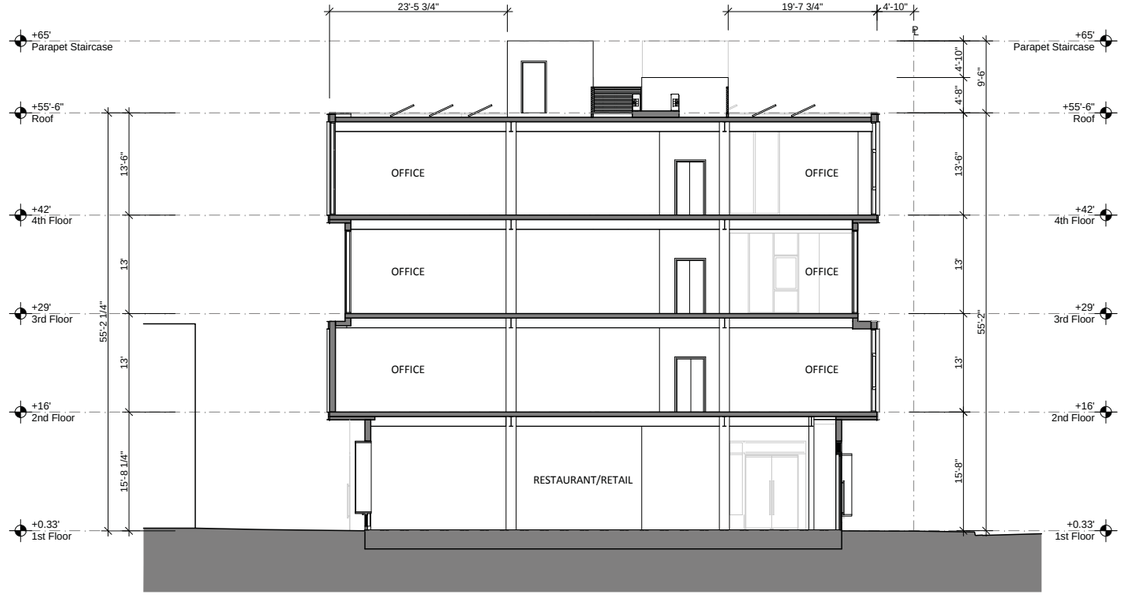


8

Low-E Glazing, Typ.



Section 1



Section 2

0' 10' 20' 40'

Scale: 1" = 20'

BUILDING A SECTIONS

06

BUILDING B

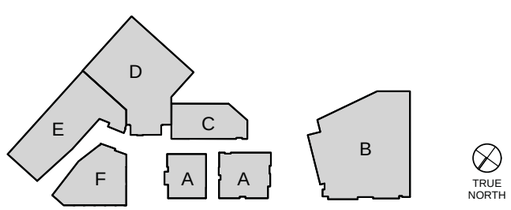
BUILDING B

This building is a 5 story parking structure with retail and restaurant space on the ground floor. The retail and restaurant space faces Washington Boulevard and partially turns the corner to open up onto Landmark Street. The retail is detailed in a natural material selection consisting of wood, glass, and metal. The retail façades undulate in and out with store front windows flanked by solid wood elements.

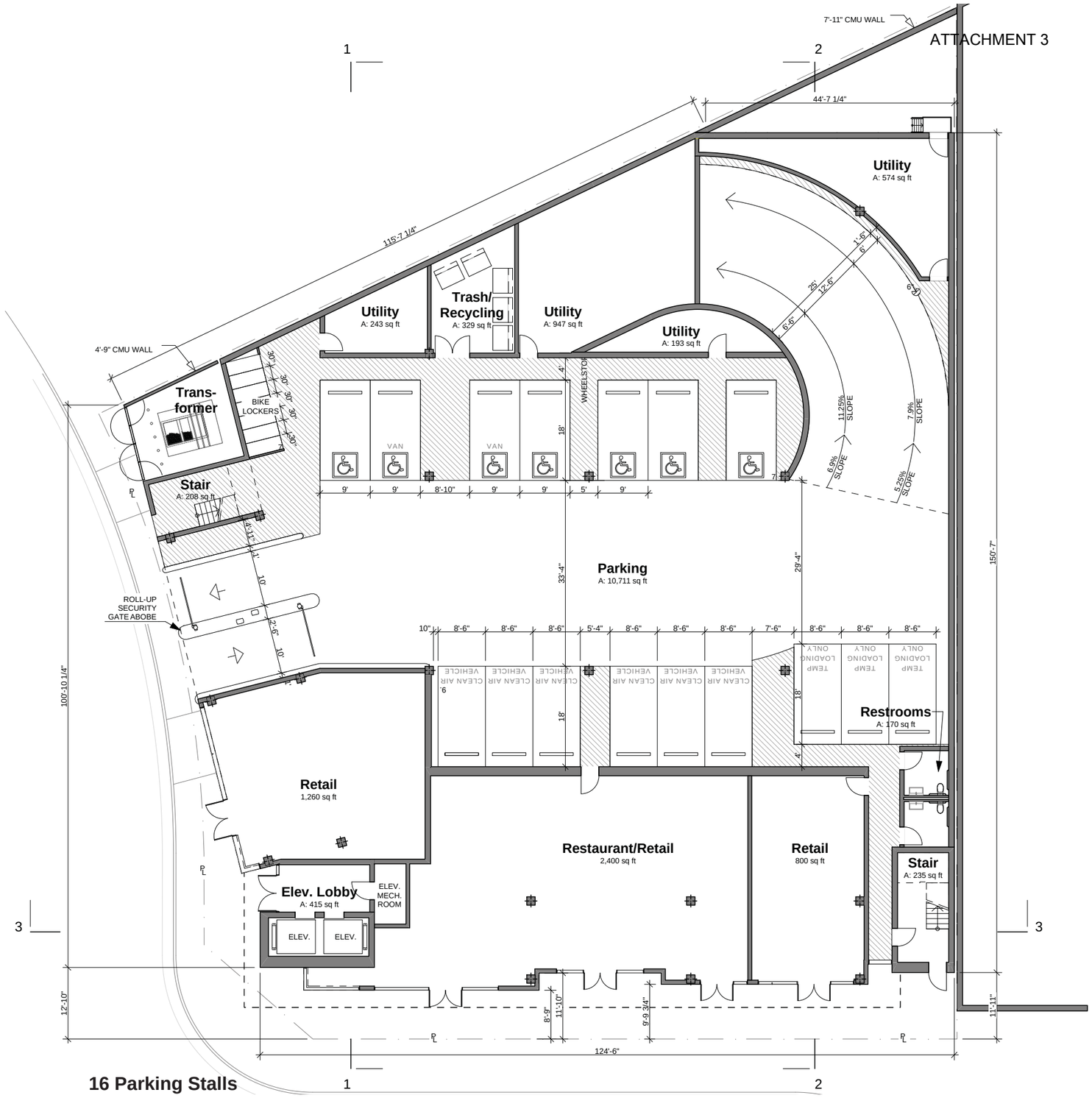
The controlled entry to the parking structure is off of Landmark Street. From this entrance, access is provided to five stories of parking with 219 parking spaces. On the ground floor of the parking structure is secure bicycle parking and a designated loading area for deliveries needed to service the retail uses. Trash and recycling are also housed in a gated and protected area. The façade on Washington Boulevard, while open for natural ventilation, is accented with two pop-out glass art display studios. The Landmark Street façade is designed as a wall with a series of varying punched openings that add interest to this elevation and serve to allow natural ventilation to flow through the building.

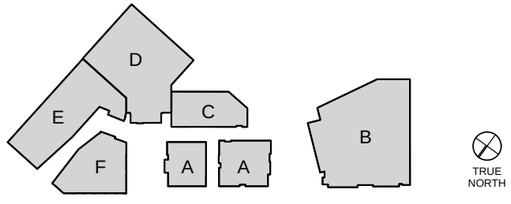


View of Building B



KEY PLAN





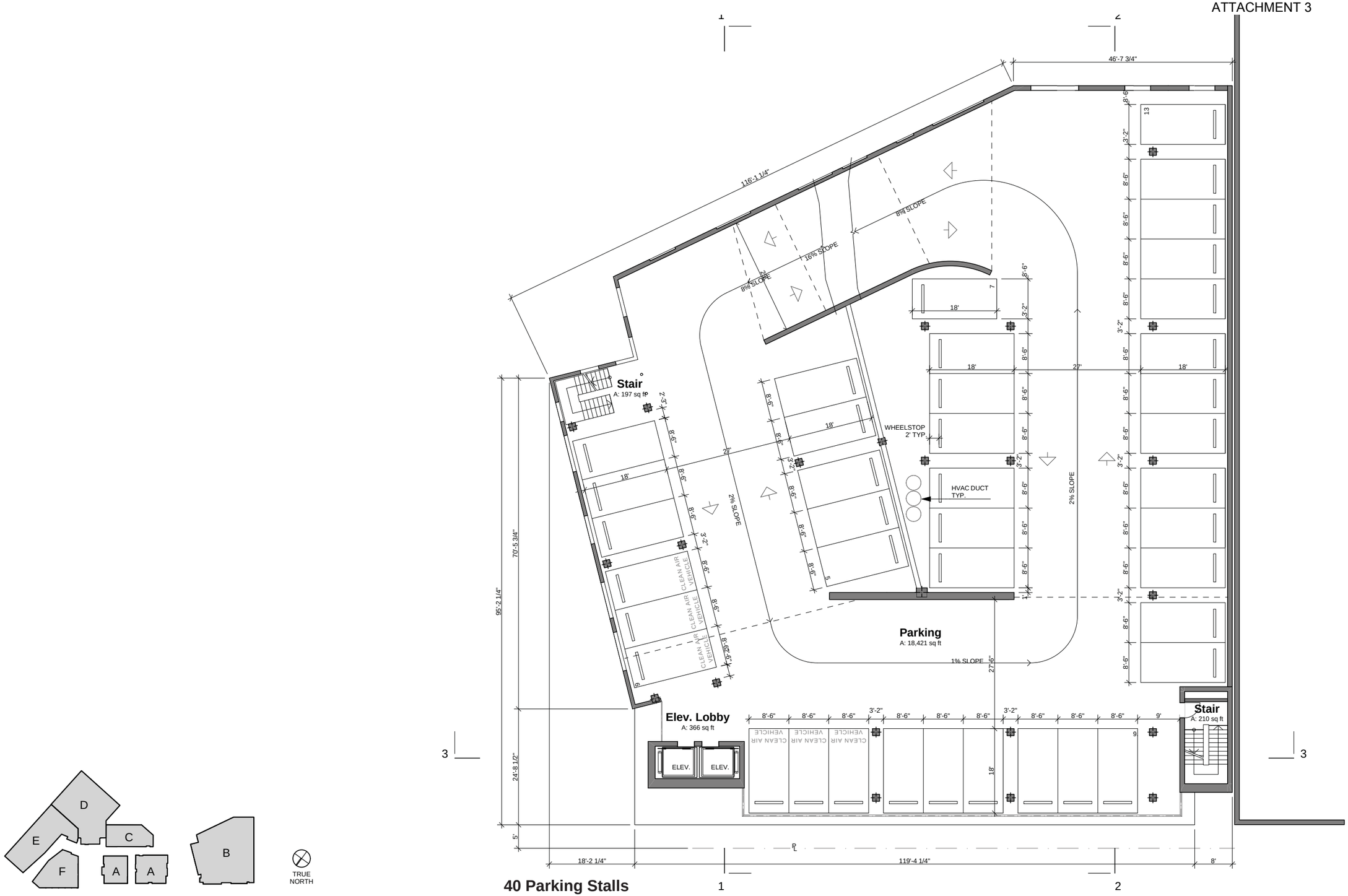
TRUE NORTH

KEY PLAN

0' 10' 20' 40'

Scale: 1" = 20'

BUILDING B: FIRST FLOOR PLAN

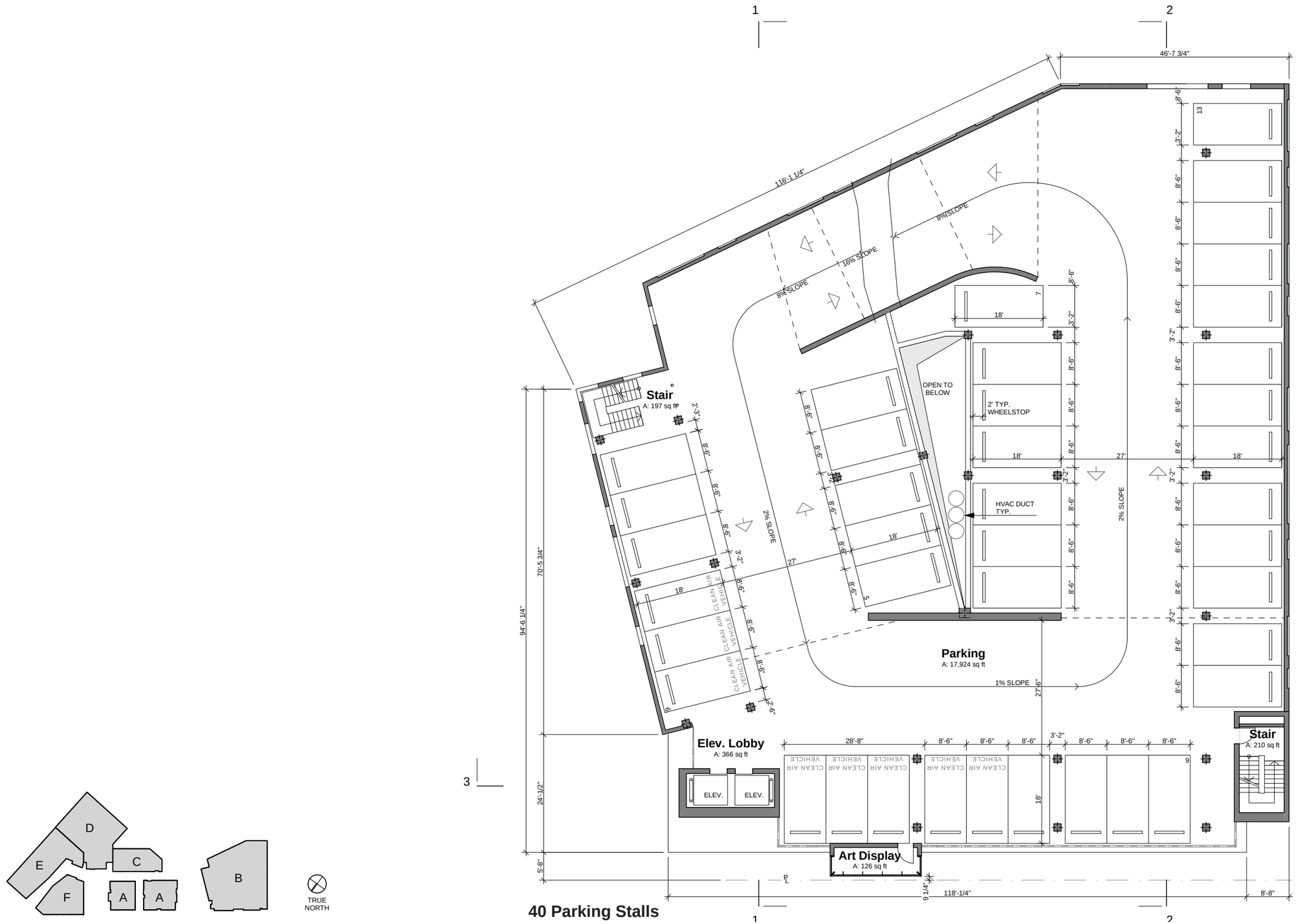


KEY PLAN

0' 10' 20' 40'

Scale: 1" = 20'

BUILDING B: SECOND FLOOR PLAN



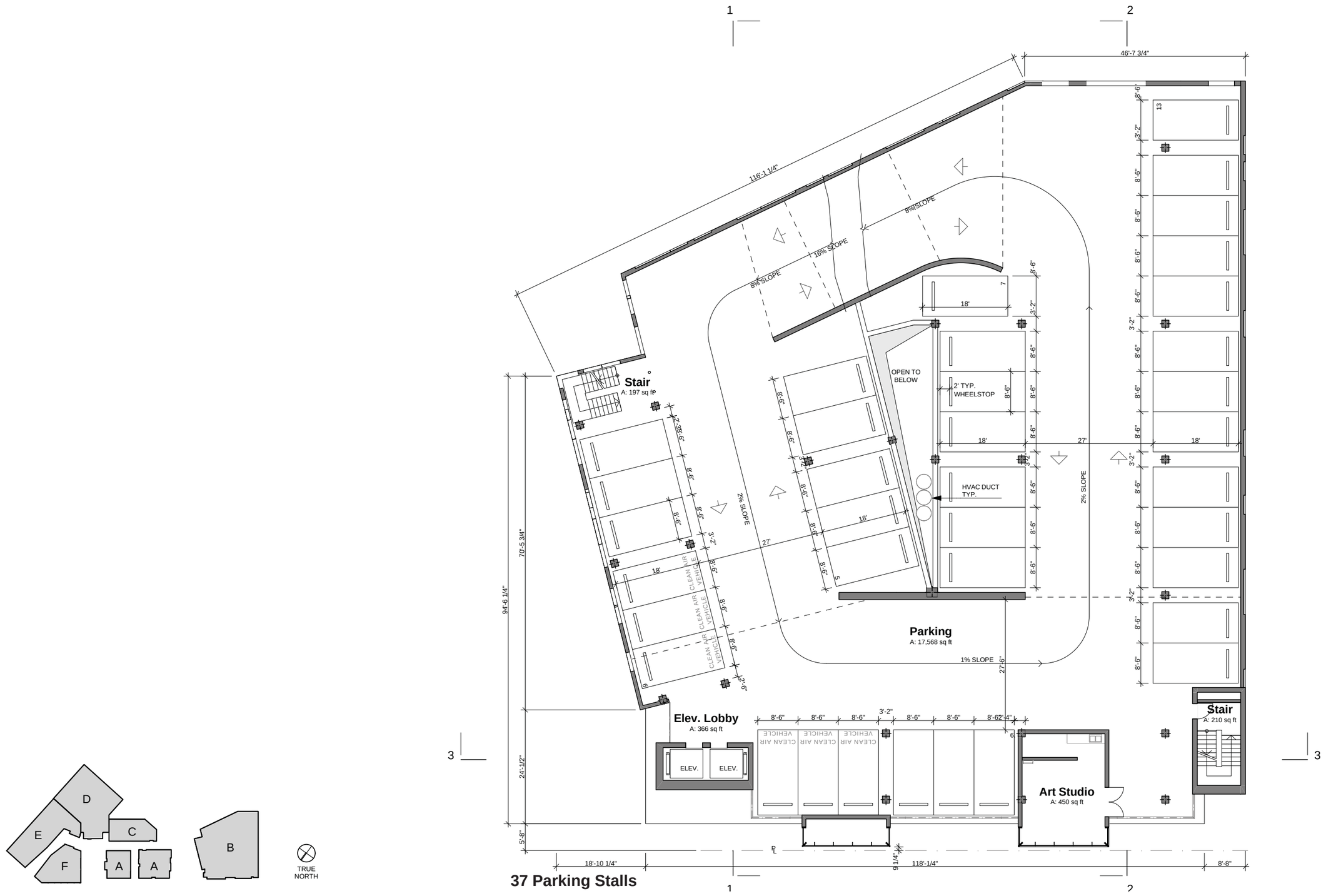
KEY PLAN

40 Parking Stalls

0' 10' 20' 40'

Scale: 1" = 20'

BUILDING B: THIRD FLOOR PLAN



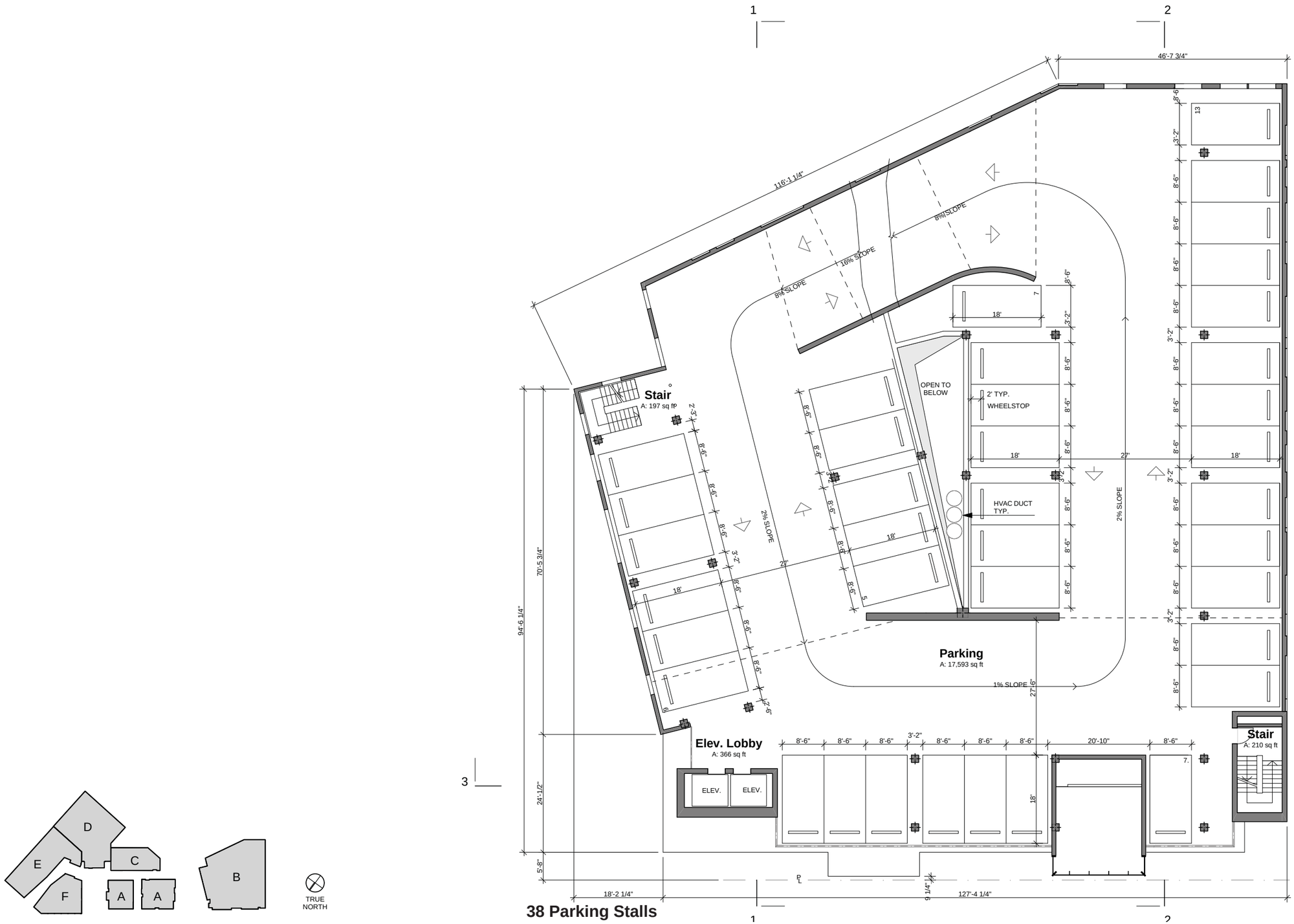
KEY PLAN

37 Parking Stalls

0' 10' 20' 40'

Scale: 1" = 20'

BUILDING B: FOURTH FLOOR PLAN

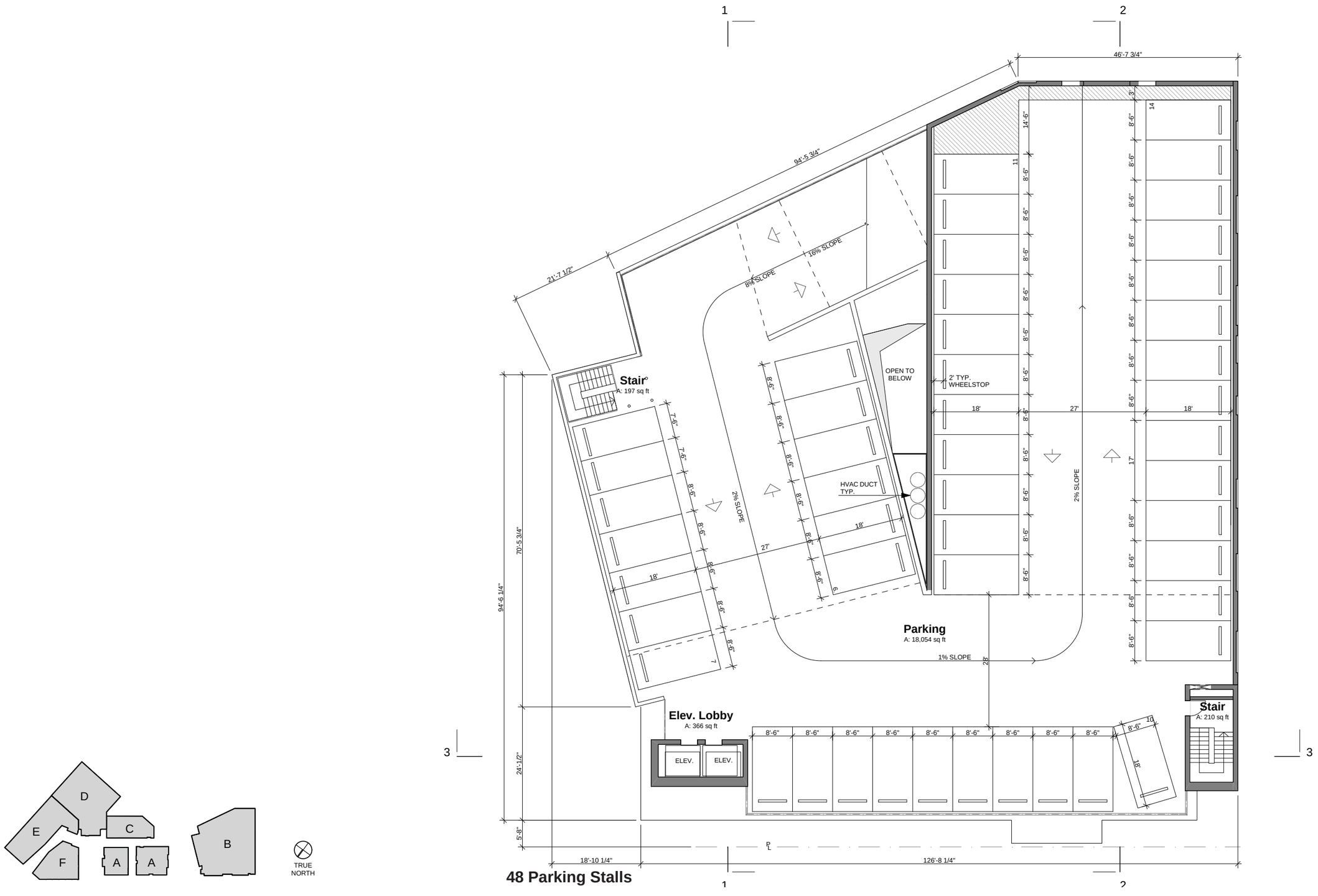


KEY PLAN

0' 10' 20' 40'

Scale: 1" = 20'

BUILDING B: FIFTH FLOOR PLAN



48 Parking Stalls

TRUE NORTH

KEY PLAN

0' 10' 20' 40'

Scale: 1" = 20'

BUILDING B: ROOF FLOOR PLAN



East Elevation



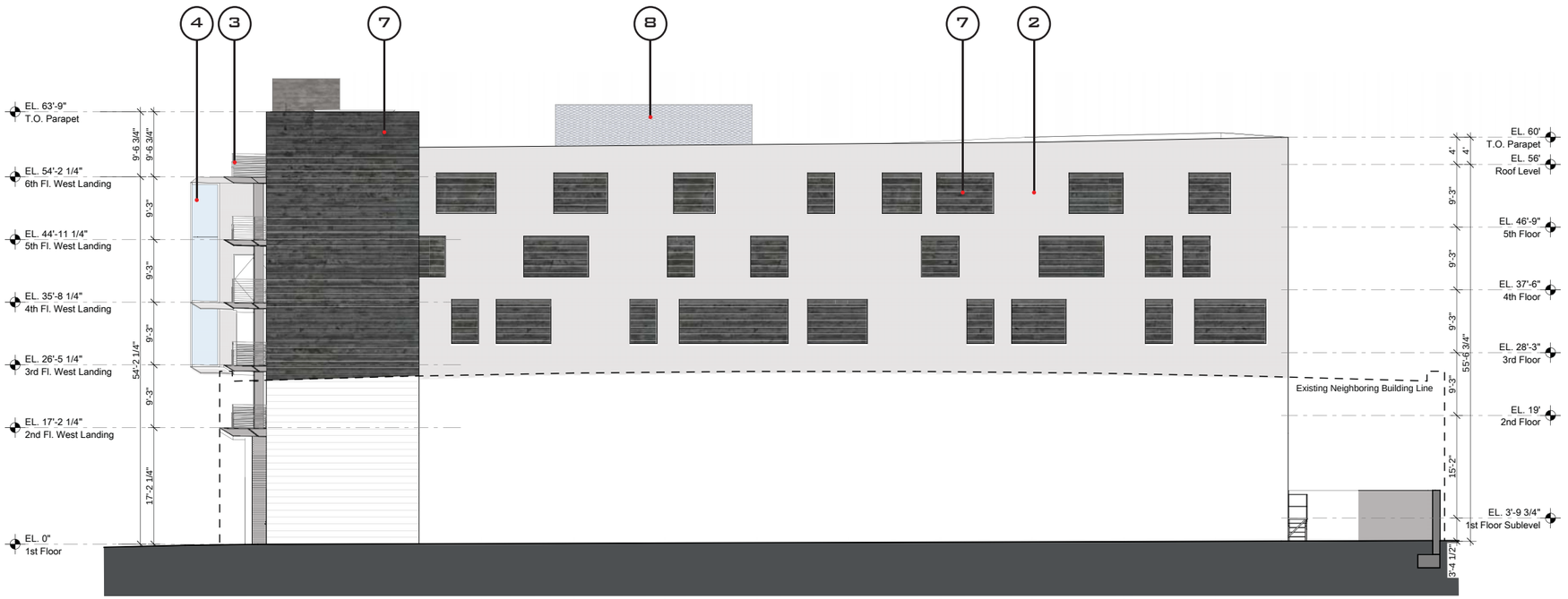
North Elevation

0’ 10’ 20’ 40’

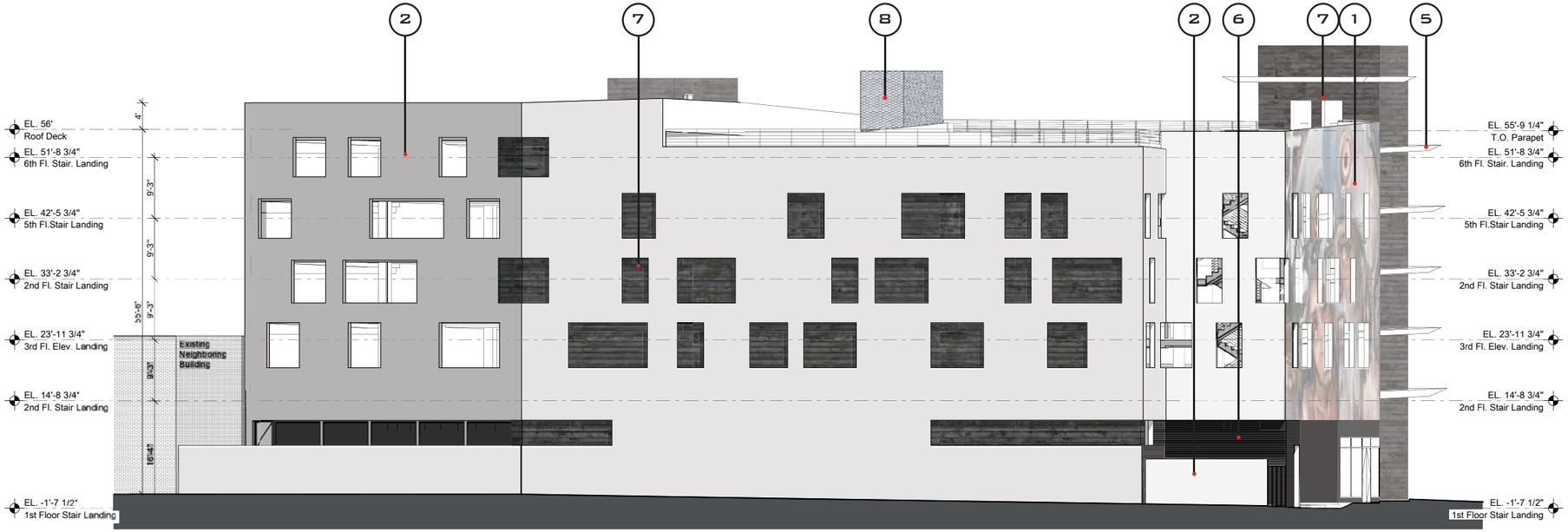
Scale: 1” = 20’

1. Artist Mural
2. Merlex Stucco P100- “Glacier White, Sta. Barbara” Finish
3. Steel Grate Railing, Blue Patina Finish
4. Low-E Glazing, Typ.
5. Concrete – Painted White
6. Charred Cedar Siding
7. Concrete- Board formed, Black Stained
8. Metal Mesh Screen

BUILDING B ELEVATIONS



West Elevation



South Elevation

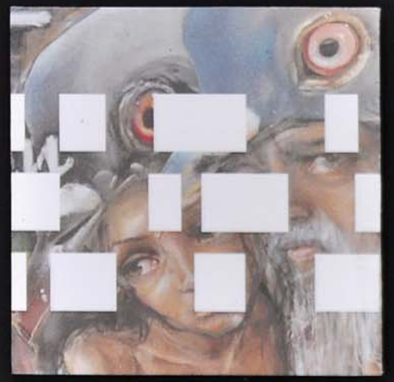
0' 10' 20' 40'

Scale: 1" = 20'

1. Artist Mural
2. Merlex Stucco P100- "Glacier White, Sta. Barbara" Finish
3. Steel Grate Railing, Blue Patina Finish
4. Low-E Glazing, Typ.
5. Concrete – Painted White
6. Charred Cedar Siding
7. Concrete- Board formed, Black Stained
8. Metal Mesh Screen

BUILDING B ELEVATIONS

Building B - Washington Arts



Artist Mural 1



Merlex Stucco P100- "Glacier White, Sta. Barbara" Finish 2



Steel Grate Railing, Blue Patina Finish 3



Low-E Glazing, Typ. 4



Concrete – Painted White 5



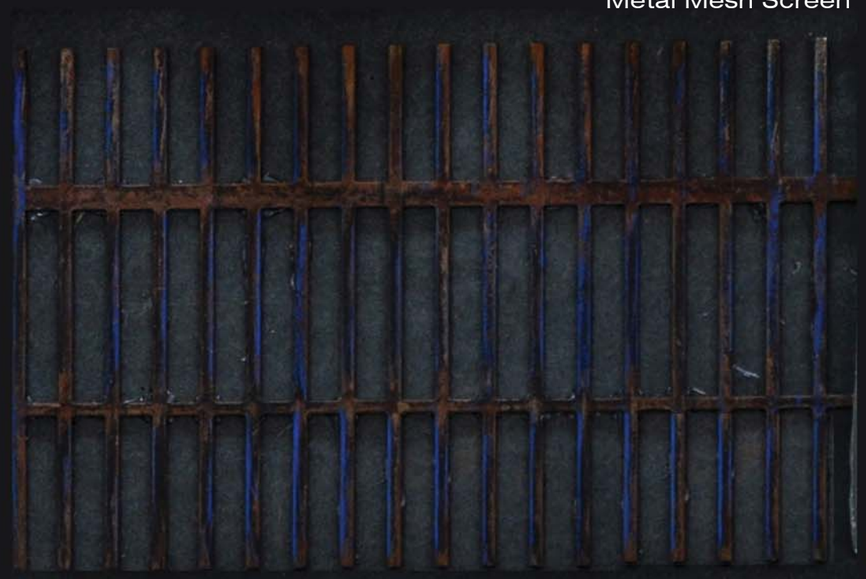
Charred Cedar Siding 6



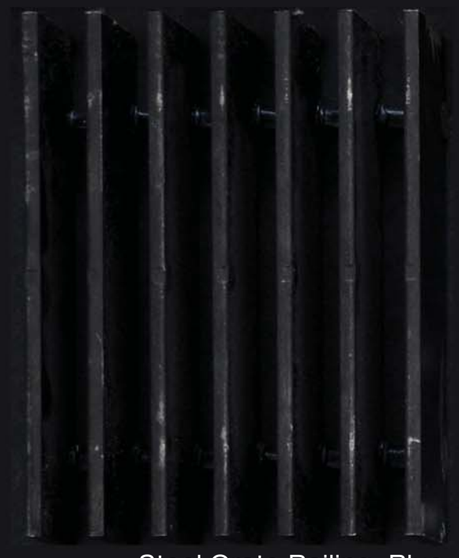
Concrete- Board formed, Black Stained 7

Building B - Washington Arts

Metal Mesh Screen



8



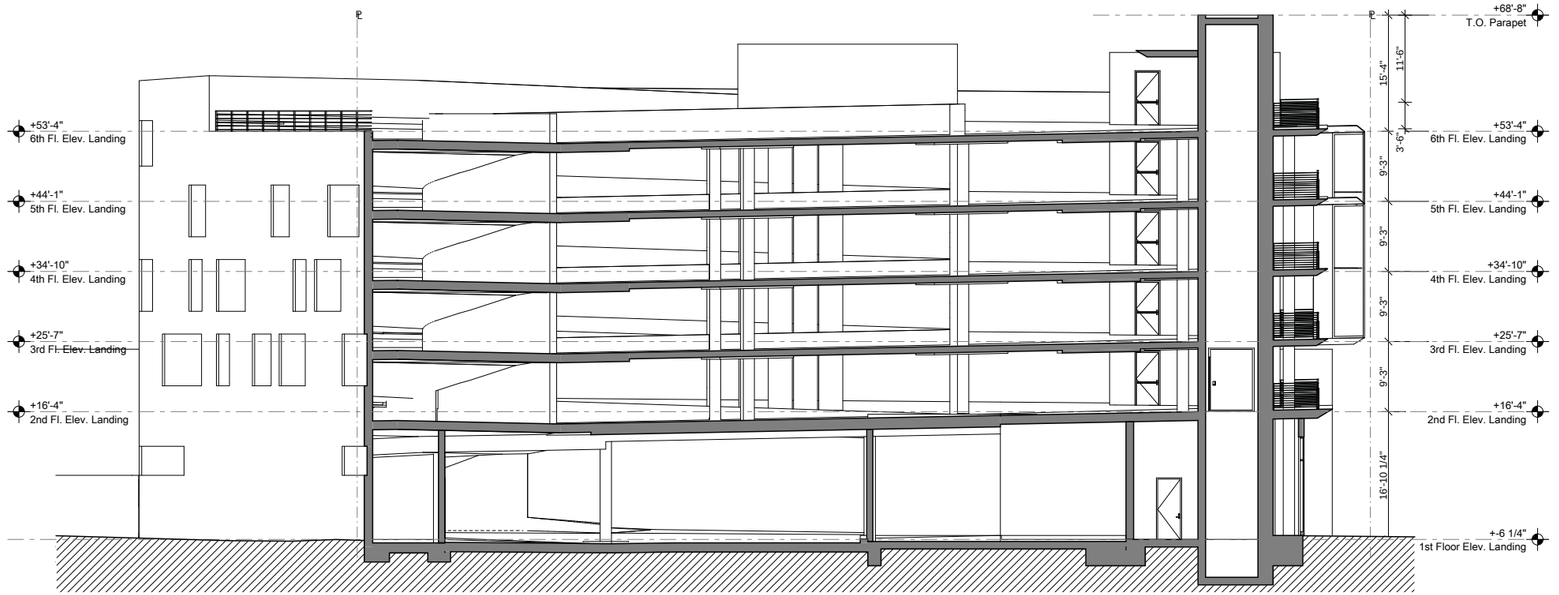
3

Steel Grate Railing, Blue Patina Finish

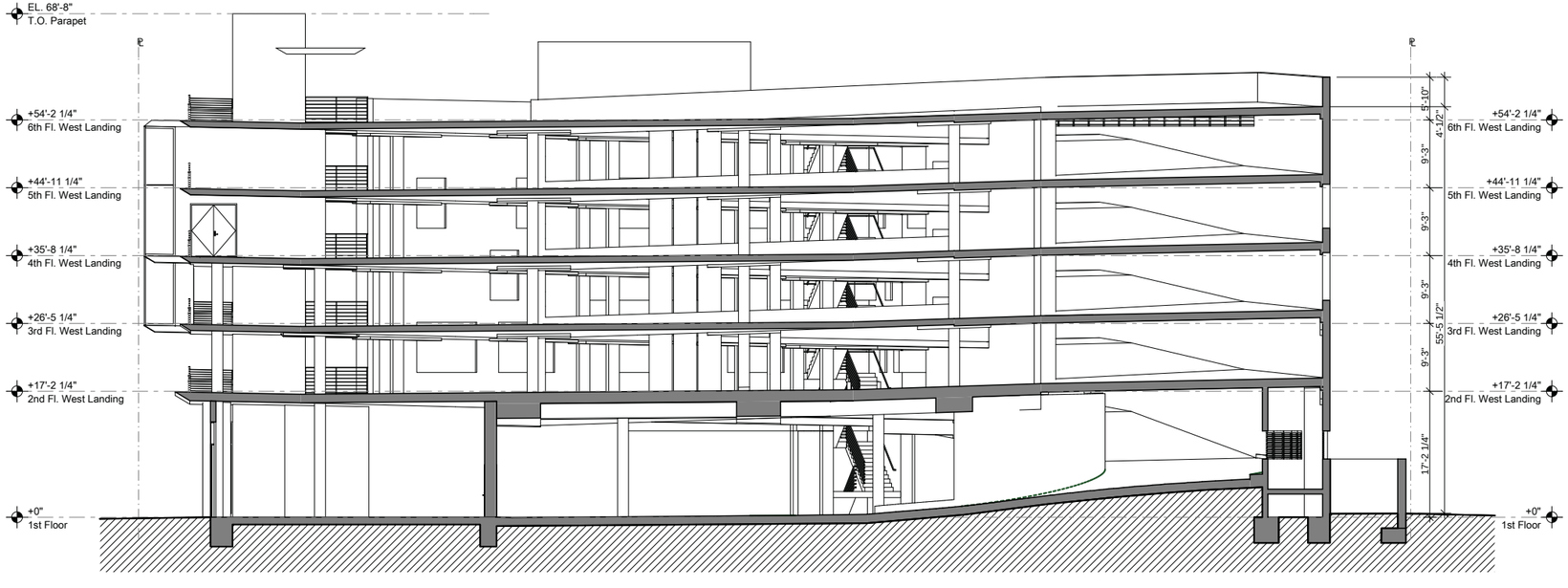


4

Low-E Glazing, Typ.



Section 1

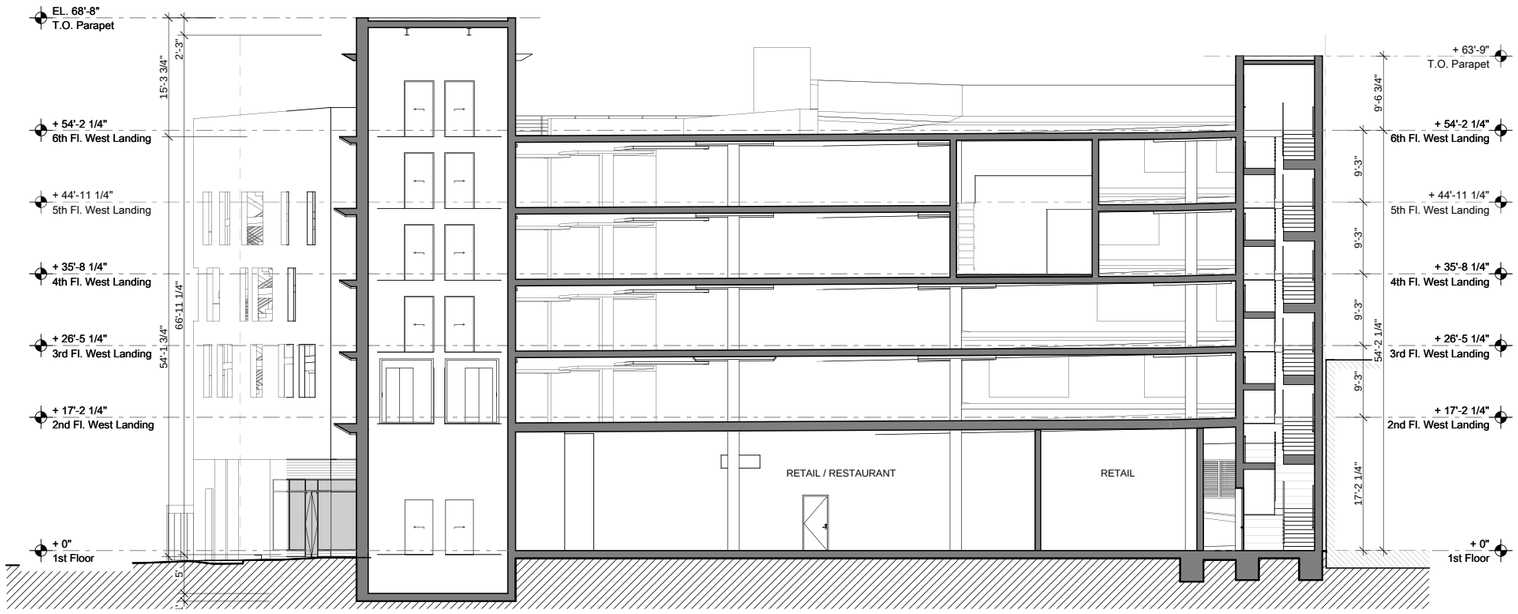


Section 2

0' 10' 20' 40'

Scale: 1" = 20'

BUILDING B SECTIONS



Section 3

0' 10' 20' 40'

Scale: 1" = 20'

BUILDING B SECTION

07

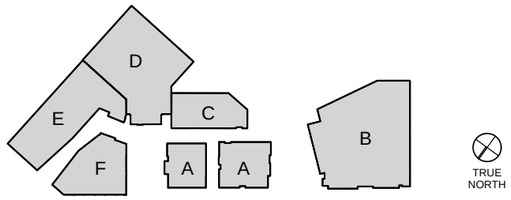
BUILDING C

BUILDING C

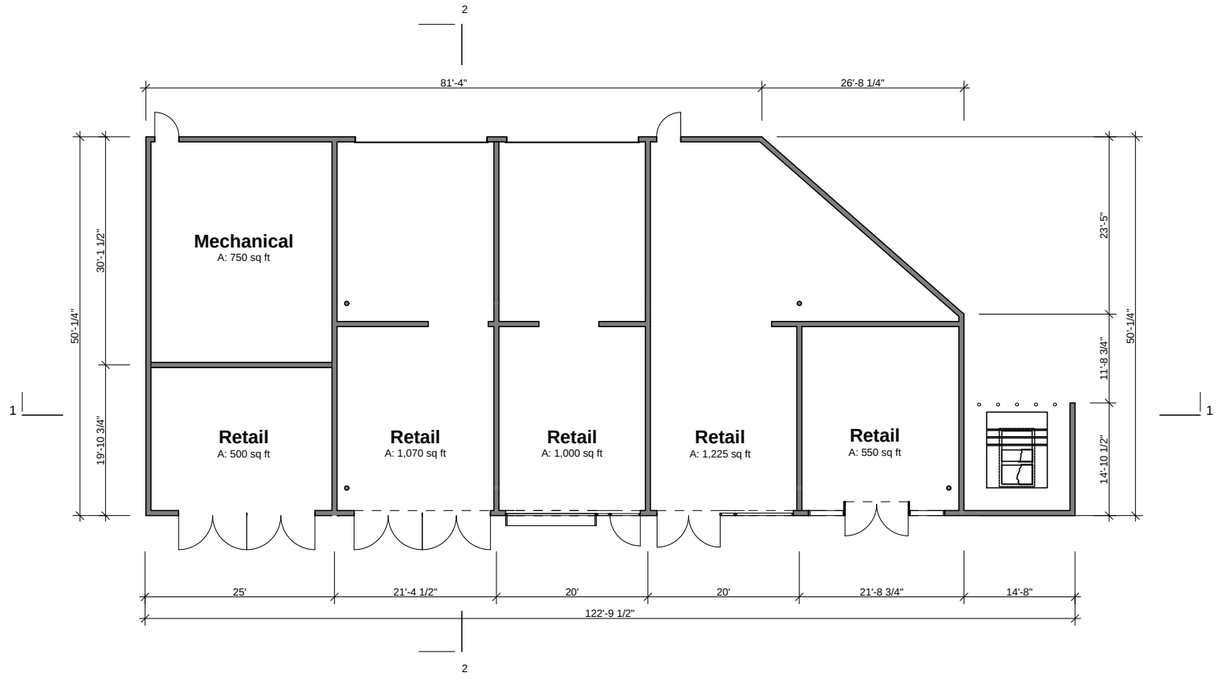
This building is an existing automotive repair building from the previous auto dealership that occupied this site. Through adaptive re-use this building is being converted to retail uses. The ground floor façade will open up to the paseo that leads from the parking structure at Landmark Street to the central courtyard. The existing concrete masonry façade will be maintained and complimented with natural wood and aged metal panels on the retail façade.

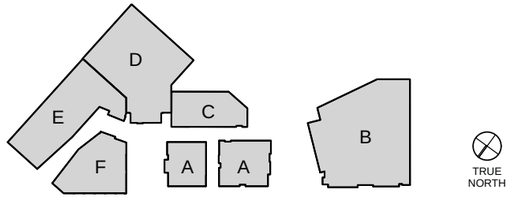


View of Building C on right



KEY PLAN





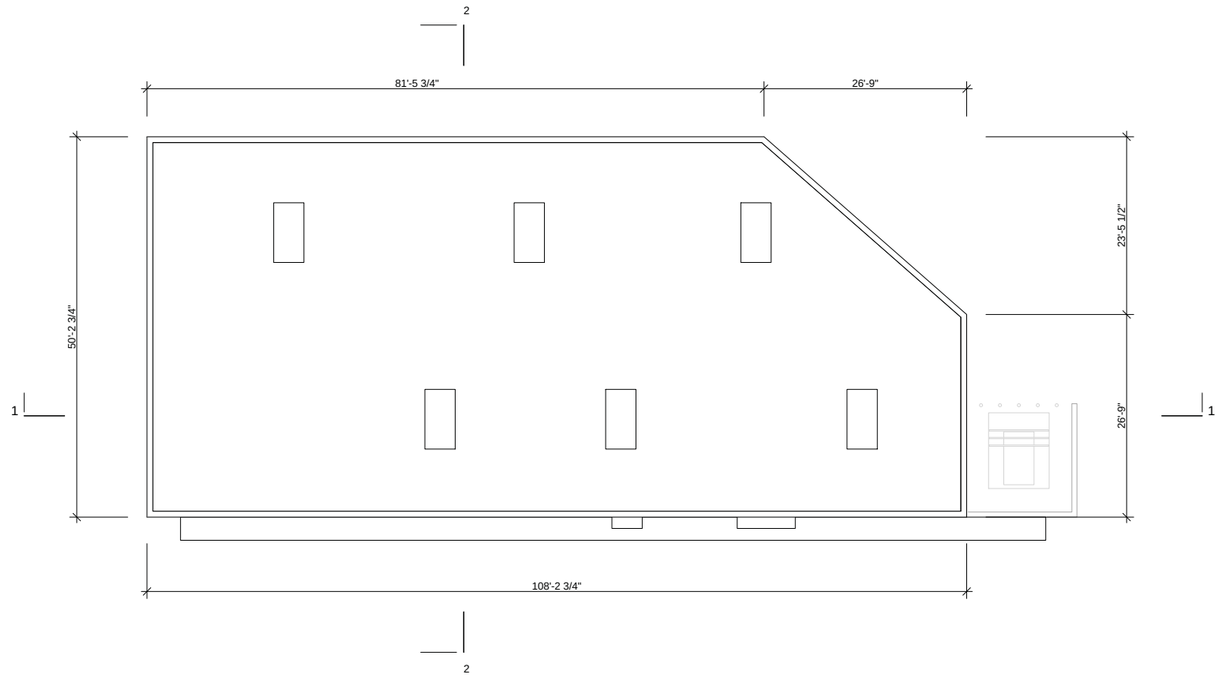
TRUE NORTH

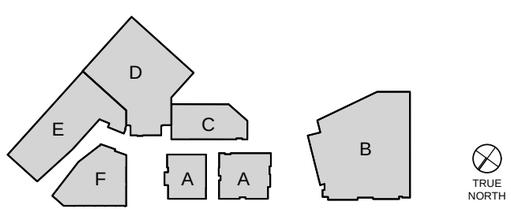
KEY PLAN

0' 10' 20' 40'

Scale: 1" = 20'

BUILDING C: FIRST FLOOR PLAN





TRUE NORTH

KEY PLAN

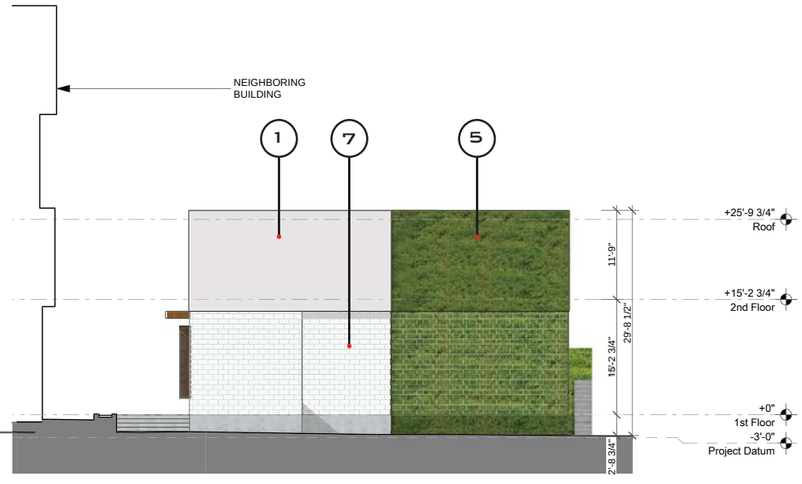
0' 10' 20' 40'

Scale: 1" = 20'

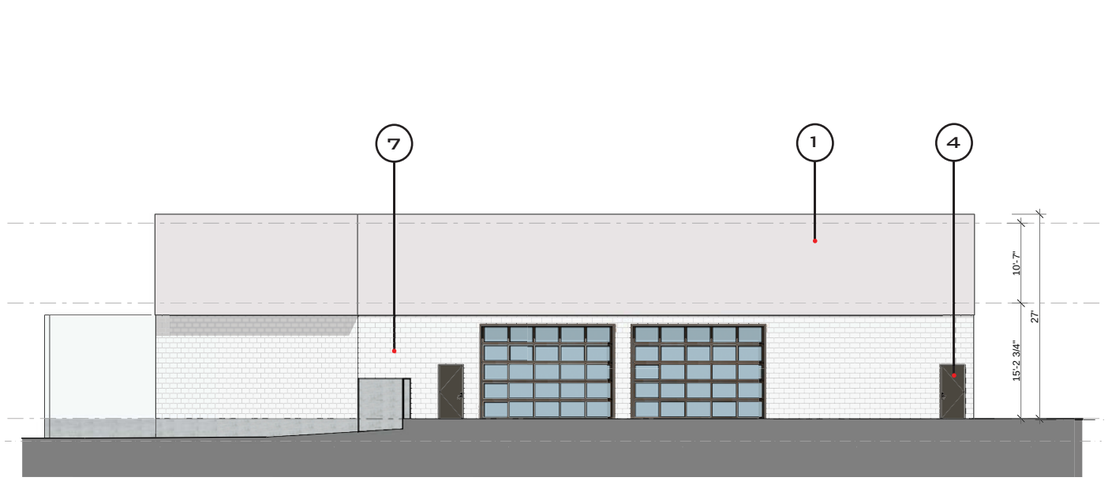
BUILDING C: ROOF PLAN



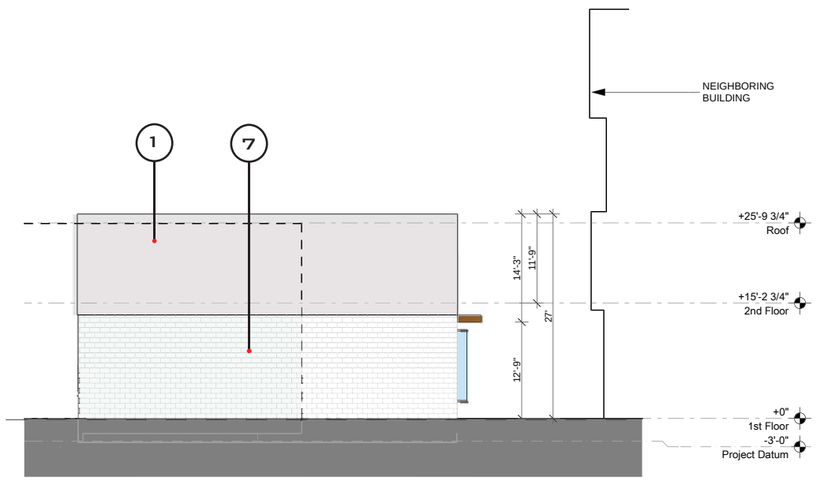
North Elevation



West Elevation



South Elevation



East Elevation

1. Merlex Stucco P722 - “Artemisia, Sta. Barbara” Finish
2. Low-E Glazing, Typ.
3. Blue Patina Metal Panel
4. Powder Coated Steel – “Olive Drab” (RAL 6022) Finish
5. Living Green Wall Vertical Trellis
6. Open steel frame canopy, finished with Rusting Agent, Clear Coat
7. Existing CMU – “Warm White” (SW7063) Paint Finish

0’ 10’ 20’ 40’

Scale: 1” = 20’

BUILDING C ELEVATIONS

Building C - Landmark Repair Shop



Merlex Stucco P722 - "Artemisia, Sta. Barbara" Finish 1



Low-E Glazing, Typ. 2



Blue Patina Metal Panel 3



Powder Coated Steel – "Olive Drab" (RAL 6022) Finish 4



Open steel frame canopy, finished with Rusting Agent, Clear Coat 6



Low-E Glazing, Typ. 2



Living Green Wall Vertical Trellis 5



Open steel frame canopy, finished with Rusting Agent, Clear Coat 6

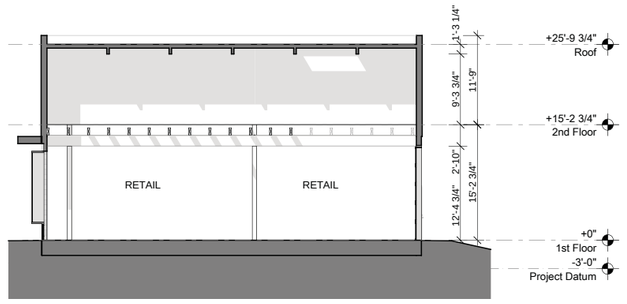


Existing CMU – "Warm White" (SW7063) Paint Finish 7

BUILDING C MATERIAL BOARD



Section 1



Section 2

0' 10' 20' 40'

Scale: 1" = 20'

BUILDING C SECTIONS

08

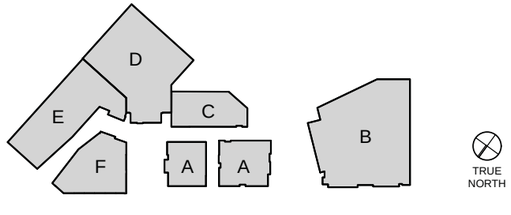
BUILDING D

BUILDING D

This building is an existing parking structure that was used by the previous auto dealership that occupied this site. The structure parks 93 cars on three levels. The existing concrete façade on Landmark Street will be embellished with green screen mesh and some smooth trowel cement plaster at discrete areas that will allow way finding signage to stand out. The green screen will be planted, adding much needed greenery on this industrial side street. Self-parking as well as secure bicycle parking and bathroom and shower facilities for the cyclists that work in the project will be located on the first level. Valet parking will be located on the second and third level.

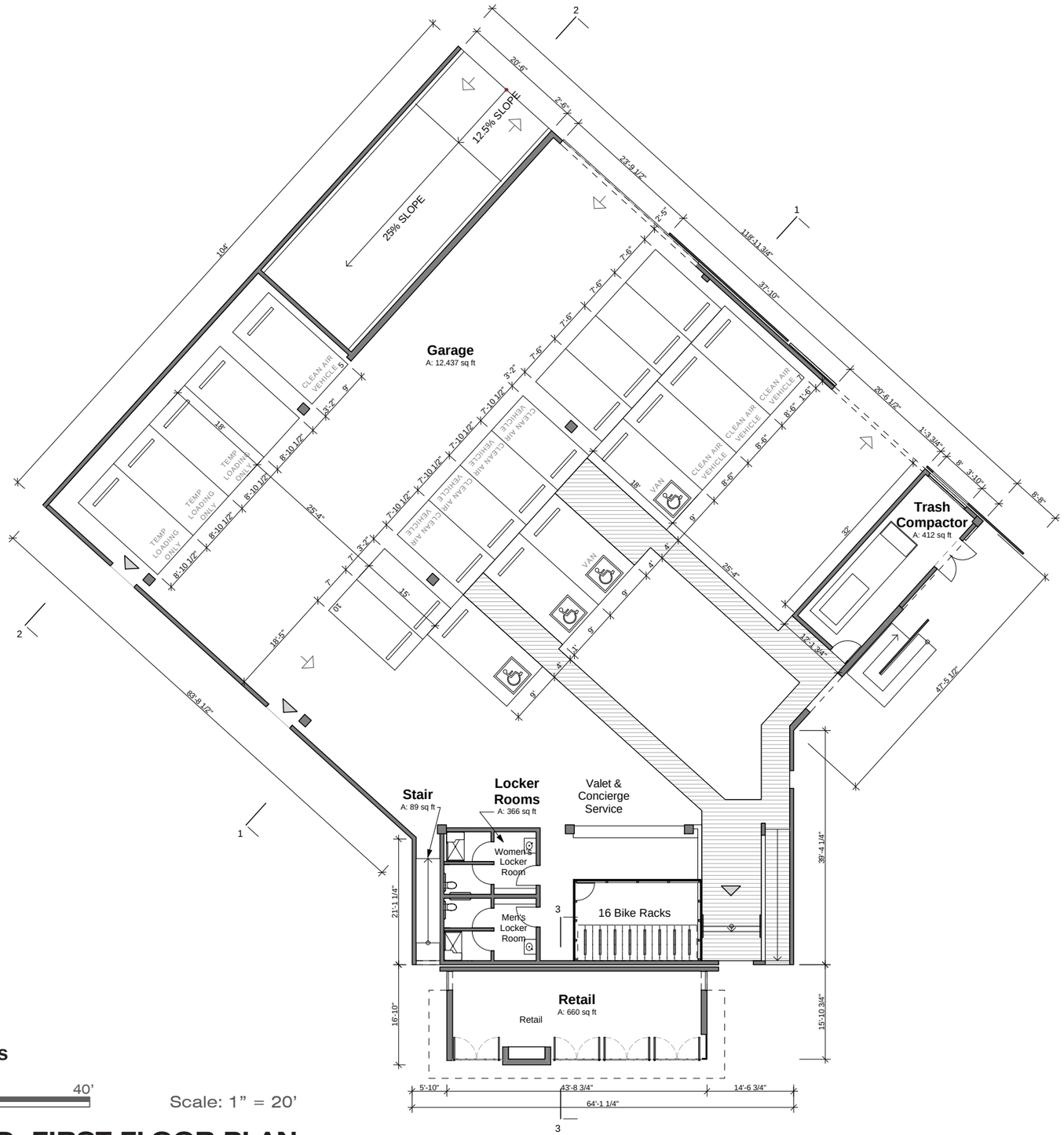


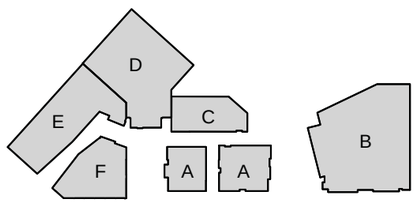
View towards Building D at right side of background
(RENDERING FOR ILLUSTRATIVE PURPOSES ONLY)



TRUE NORTH

KEY PLAN





TRUE NORTH

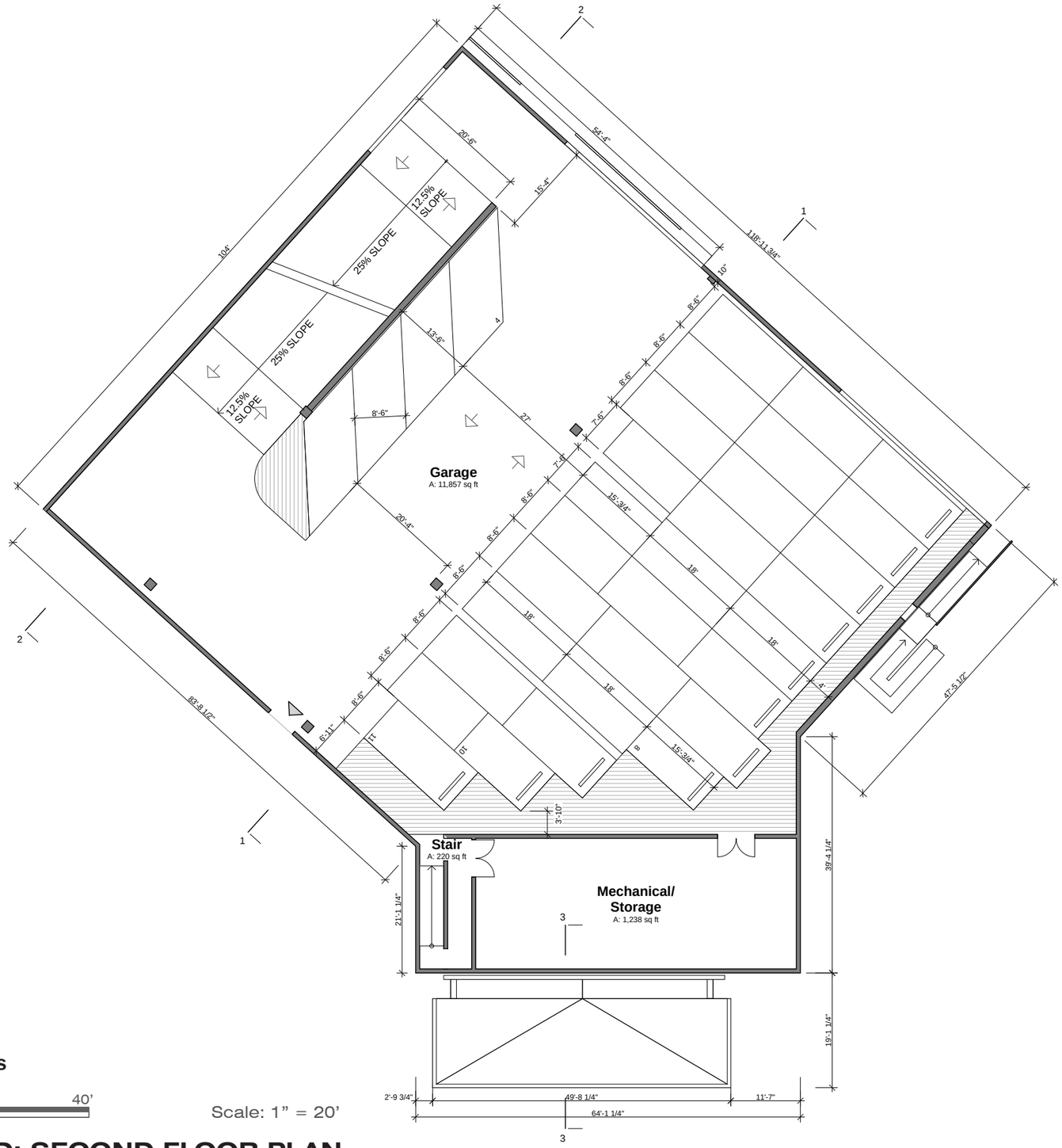
22 Parking Stalls

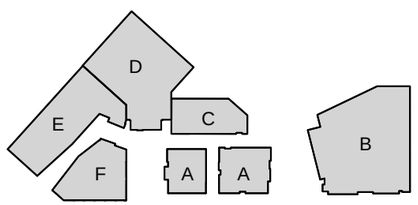
0’ 10’ 20’ 40’

Scale: 1” = 20’

KEY PLAN

BUILDING D: FIRST FLOOR PLAN





KEY PLAN

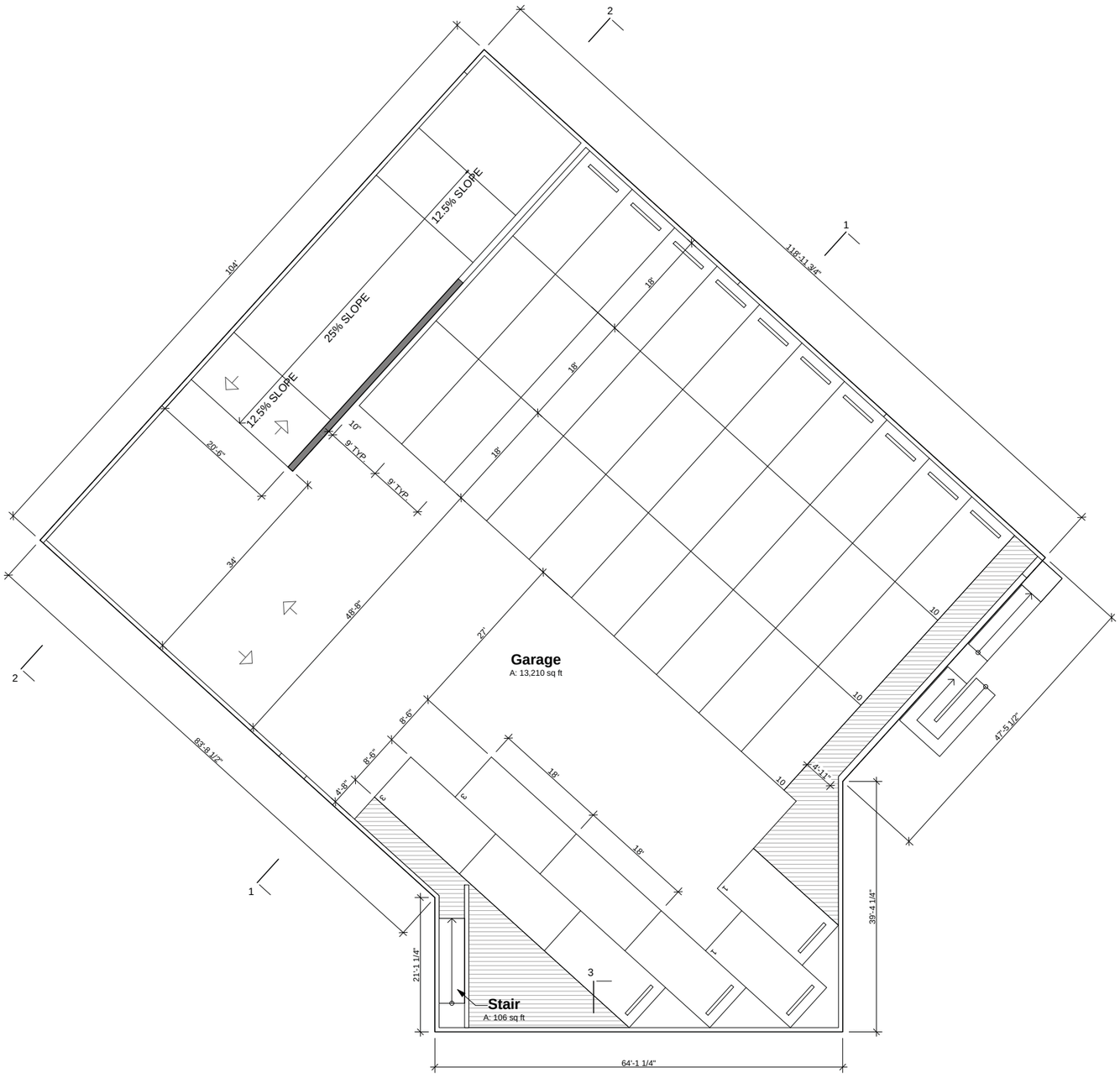
TRUE NORTH

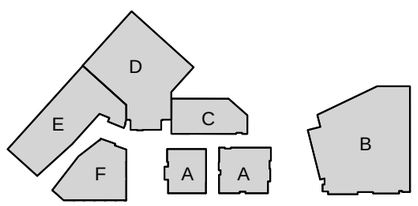
33 Parking Stalls

0’ 10’ 20’ 40’

Scale: 1” = 20’

BUILDING D: SECOND FLOOR PLAN





KEY PLAN

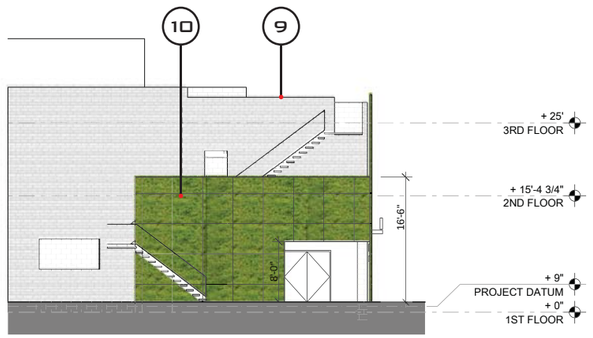
TRUE NORTH

38 Parking Stalls

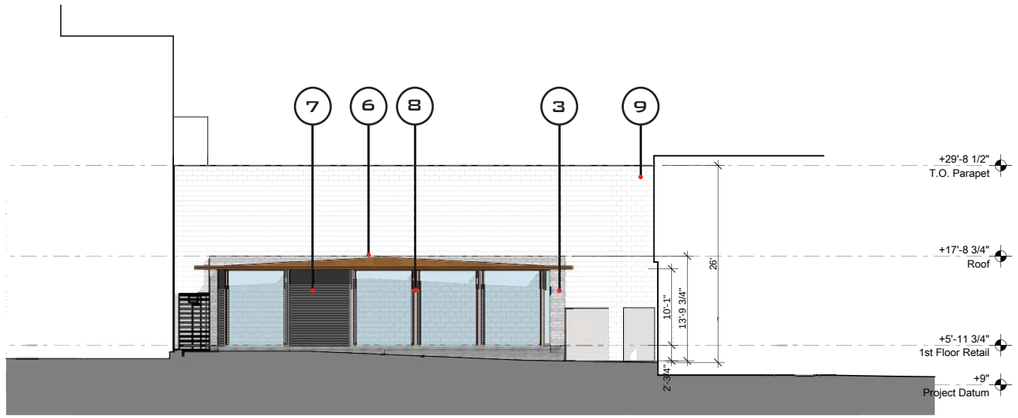
0’ 10’ 20’ 40’

Scale: 1” = 20’

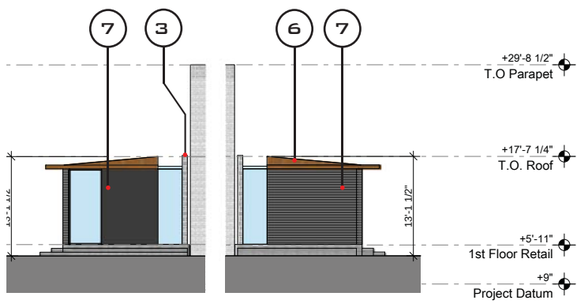
BUILDING D: ROOF PLAN



West Elevation

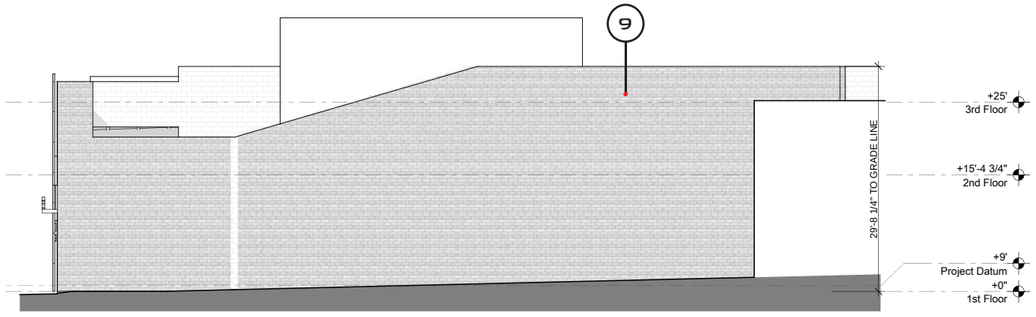


North Elevation



West Elevation

East Elevation



East Elevation



South Elevation Landmark Street

1 Merlex Stucco P722-"Artemisia, Sta. Barbara" Finish

2 Steel with Blue Patina

3 CMU – "Warm Grey" Paint Finish, with Combed Face

4 Powder Coated Steel – "Olive Drab" (RAL 6022) Paint Finish

5 Concrete – Exposed Concrete with a larger Aggregate Finish

6 Corten Steel– Corrugated Roof Panels (1.25 x 1.25)

7 Charred Cedar Siding

8 Corten Steel – Window/ Door Frame

9 Existing CMU – "Warm White" (SW7063) Paint Finish

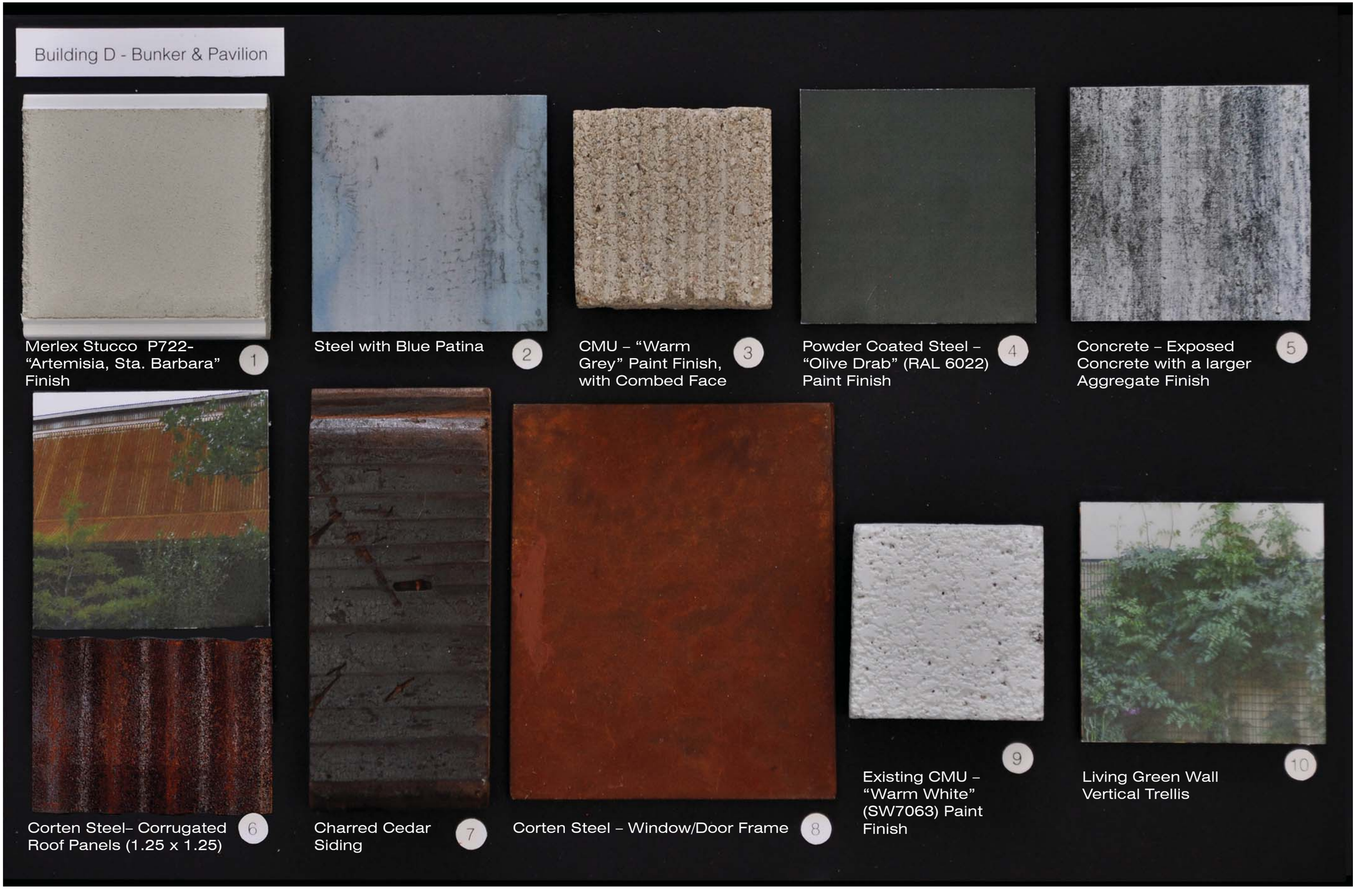
10 Living Green Wall Vertical Trellis

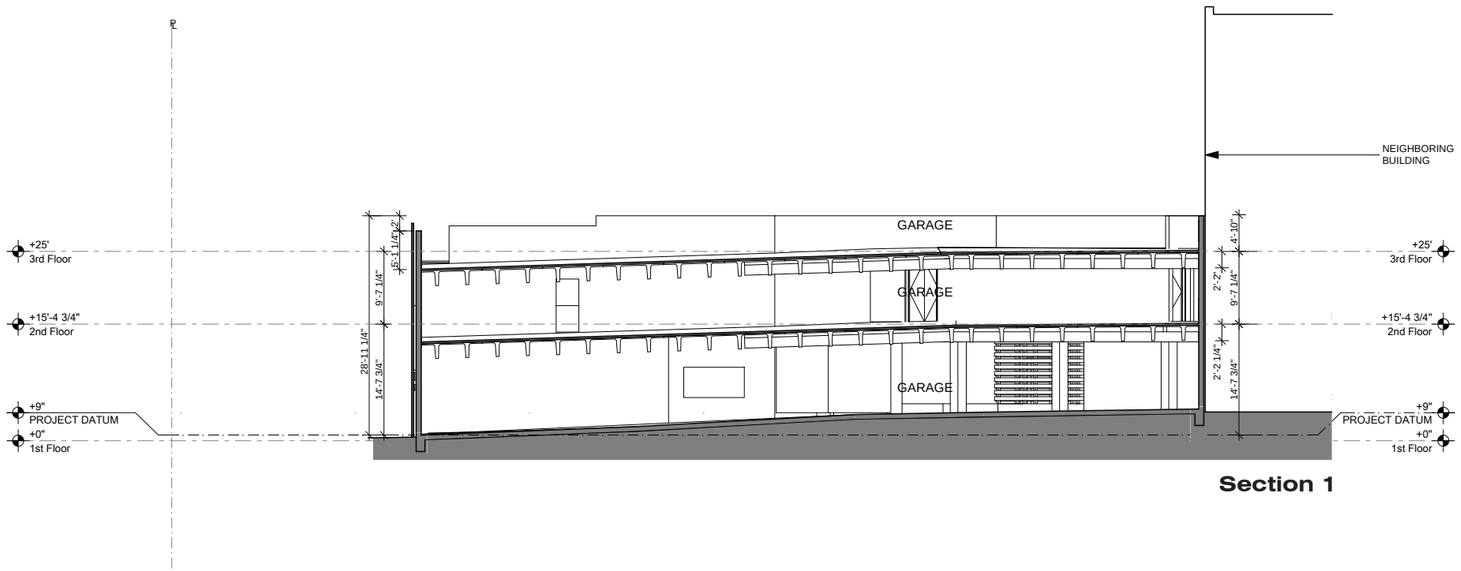
* Signage is shown for illustrative purposes only. All signage is processed through Master Sign Program
(See page 13).

0' 10' 20' 40'

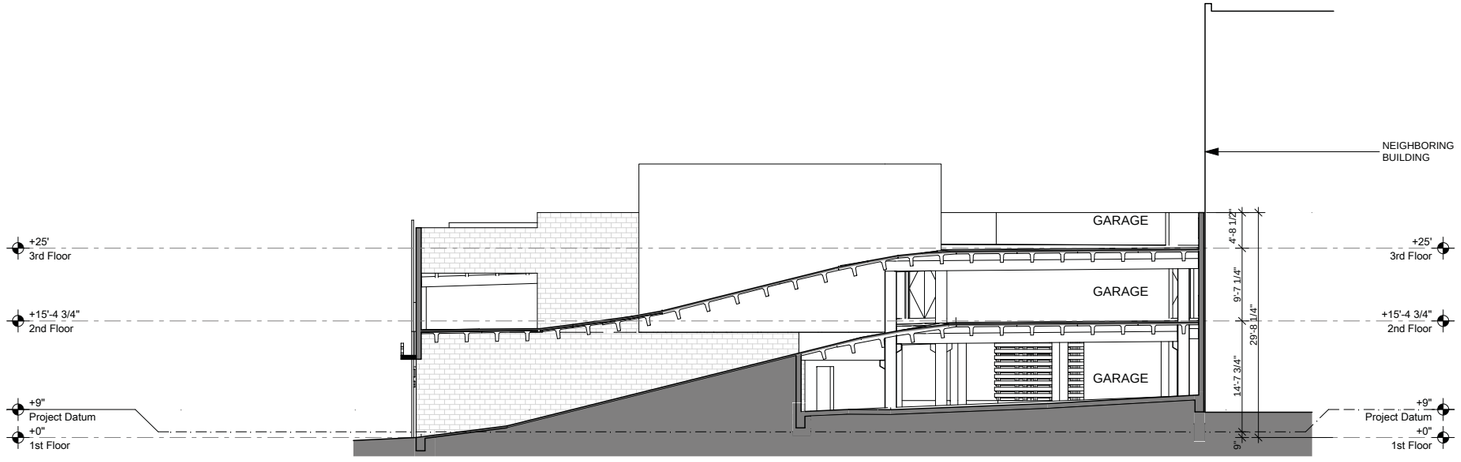
Scale: 1" = 20'

BUILDING D ELEVATIONS

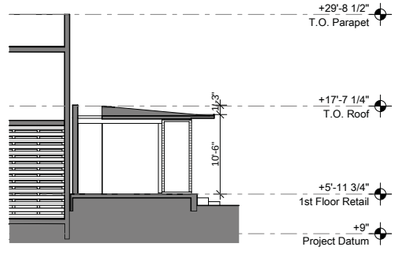

Building D - Bunker & Pavilion
Merlex Stucco P722- "Artemisia, Sta. Barbara" Finish
1
Steel with Blue Patina
2
CMU – "Warm Grey" Paint Finish, with Combed Face
3
Powder Coated Steel – "Olive Drab" (RAL 6022) Paint Finish
4
Concrete – Exposed Concrete with a larger Aggregate Finish
5
Corten Steel– Corrugated Roof Panels (1.25 x 1.25)
6
Charred Cedar Siding
7
Corten Steel – Window/Door Frame
8
Existing CMU – "Warm White" (SW7063) Paint Finish
9
Living Green Wall Vertical Trellis
10



Section 1



Section 2



Section 3

0' 10' 20' 40'

Scale: 1" = 20'

BUILDING D SECTIONS

09

BUILDING E/F

BUILDING E/F

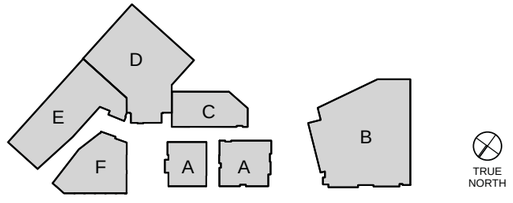
Building E
This three story building is positioned on the interior of the site in the location of the large warehouse building. While it is situated to the rear of the site it will rise up above the adjacent Expo light rail line overhead track. The third story restaurant and dining terrace is highly visible from the Expo Line train that passes by on the way to the station. The exterior of the third floor resembles the appearance of a green house stacked on top of an existing warehouse style building.
The second floor is office use. It is covered with living green. It presents an exciting view of an elevated green garden that is visible from the passing train and the nearby station.
The retail component on the ground floor is covered by greens growing down from the office floor above. This building is conceived as one open space with a 21'-0" high open ceiling. The space will serve as a retail market space to be used by several smaller vendors. The exterior of this building is covered in living green walls.

Building F
The large existing warehouse building is reduced in size and through adaptive re-use the remainder of the warehouse structure is converted into retail and restaurant space that opens to Washington Boulevard, the central courtyard and the paseo at Building E. The tilt up concrete façade will be left in its natural concrete state reminiscent of an old industrial building from the early 20th century. Aged metal panels articulate the store window bays.



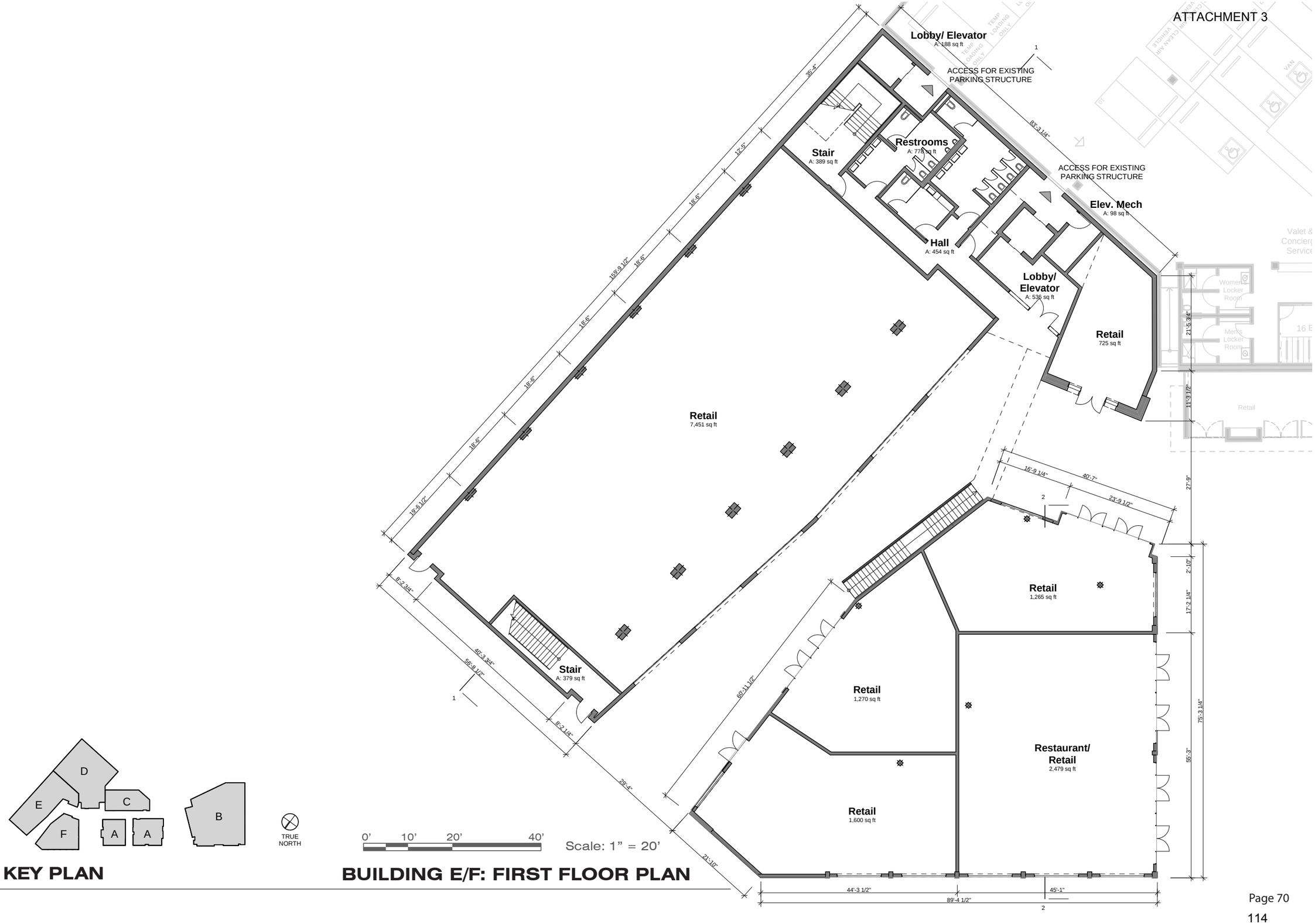
↑ View towards Building E on left side and Building F on right side - ↓ View Inside Building E





KEY PLAN

BUILDING E/F

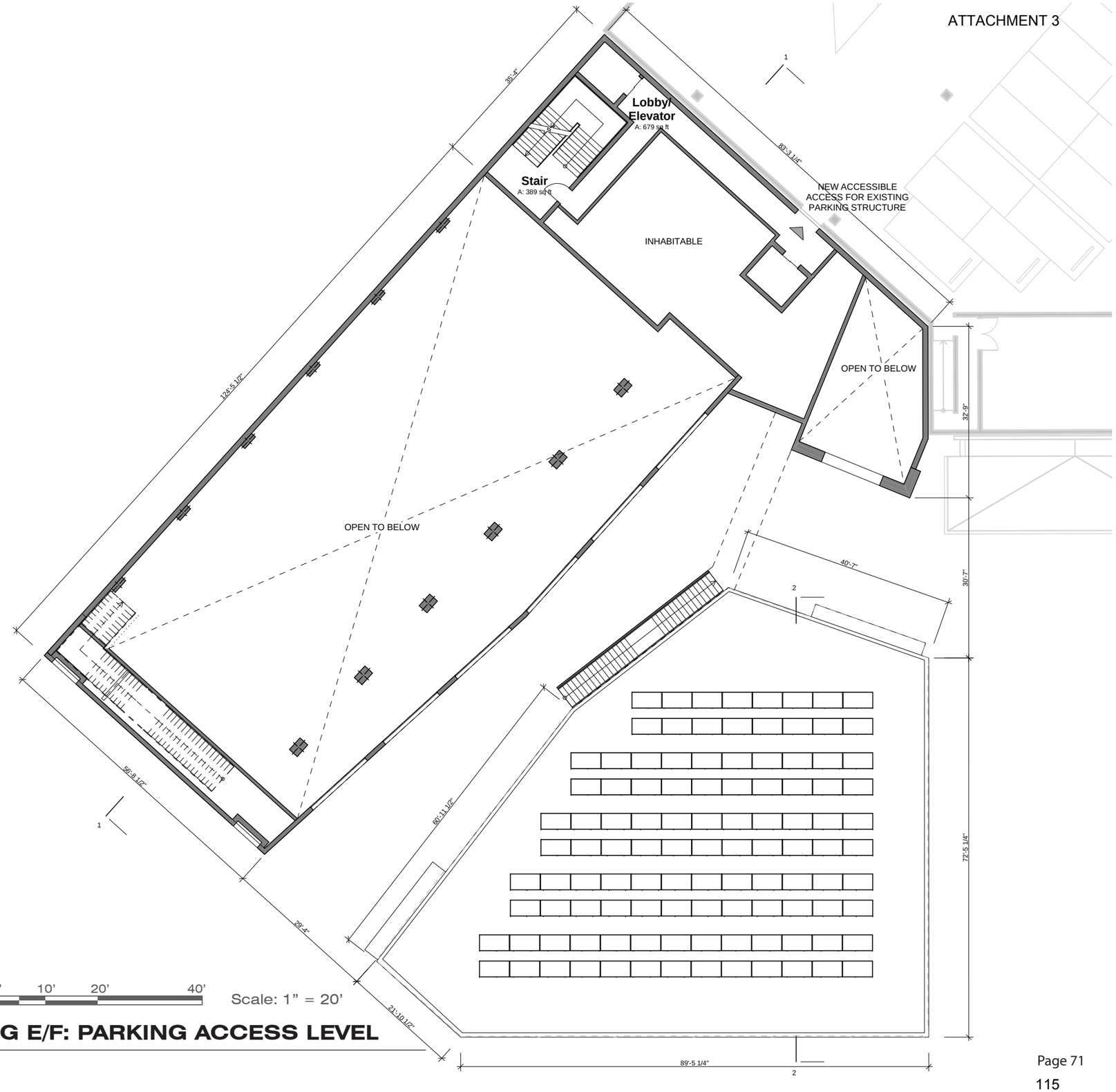


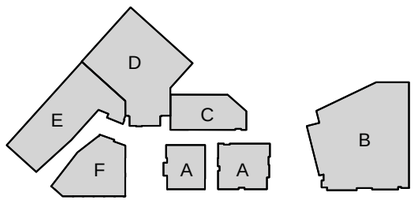
TRUE NORTH

0’ 10’ 20’ 40’ Scale: 1” = 20’

KEY PLAN

BUILDING E/F: FIRST FLOOR PLAN





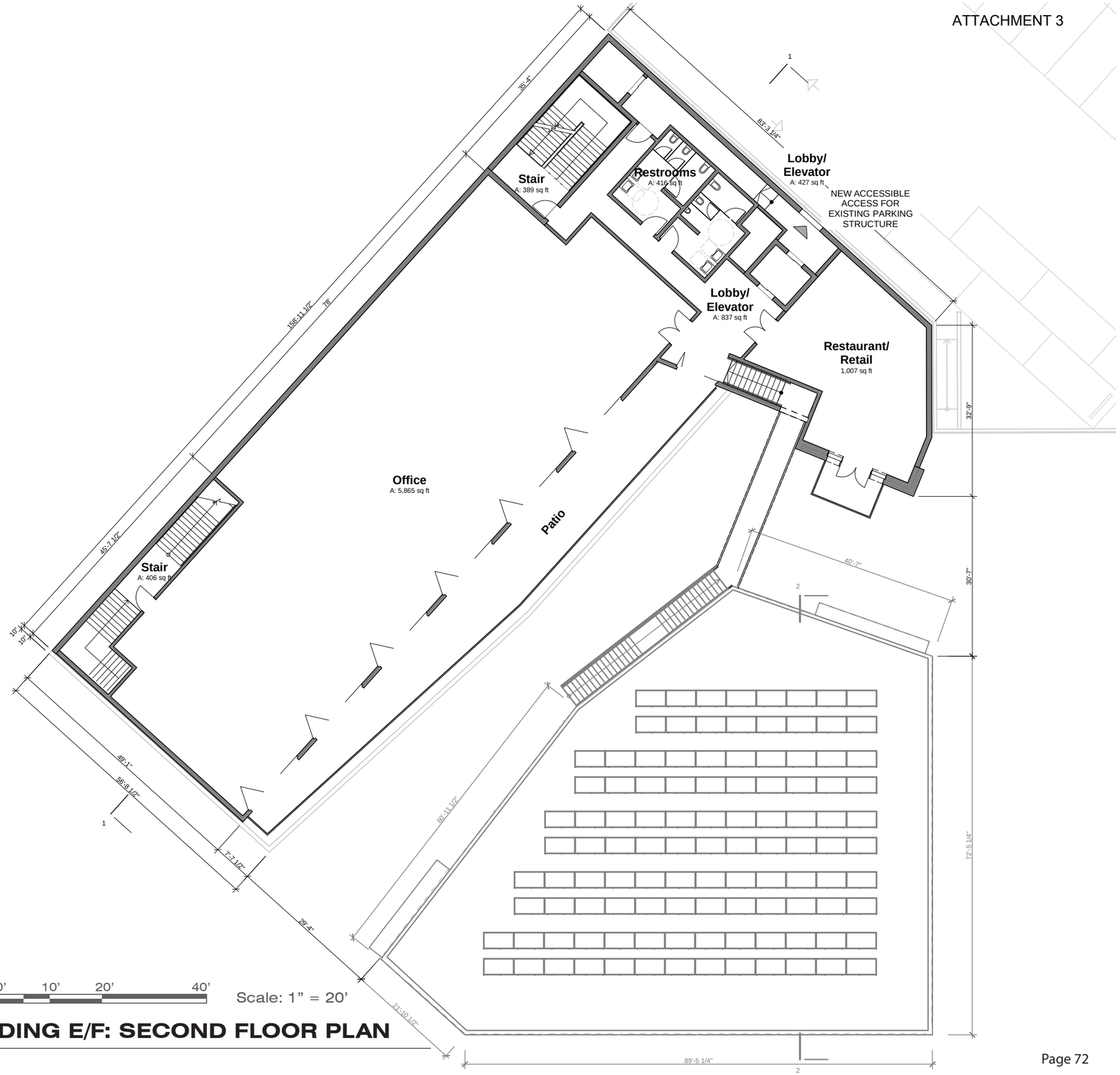
TRUE NORTH

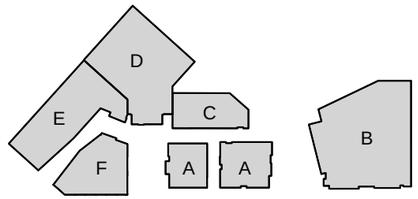
0’ 10’ 20’ 40’

Scale: 1” = 20’

KEY PLAN

BUILDING E/F: PARKING ACCESS LEVEL





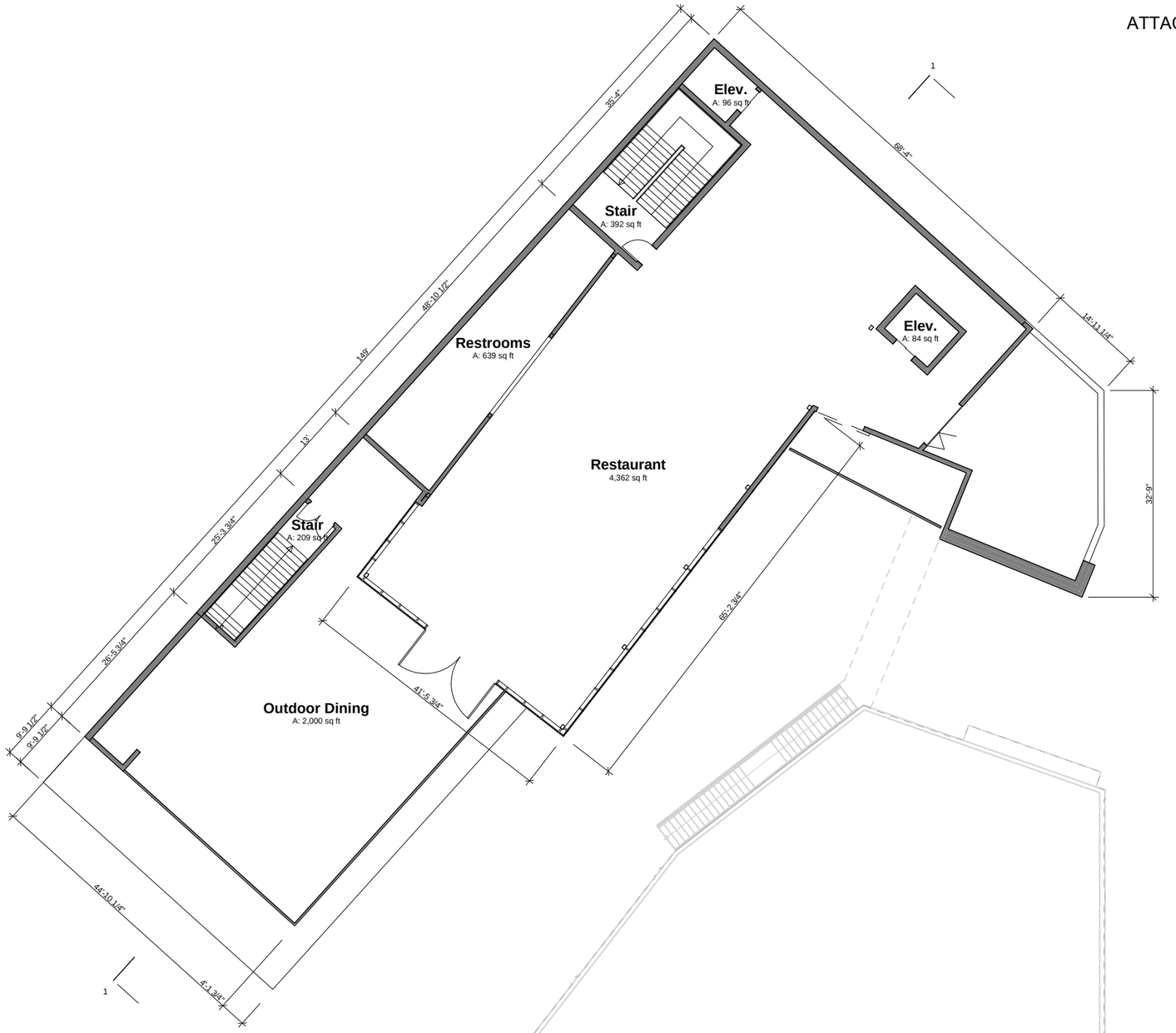
TRUE NORTH

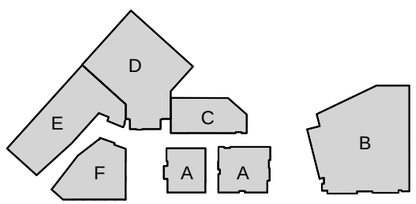
0’ 10’ 20’ 40’

Scale: 1” = 20’

KEY PLAN

BUILDING E/F: SECOND FLOOR PLAN





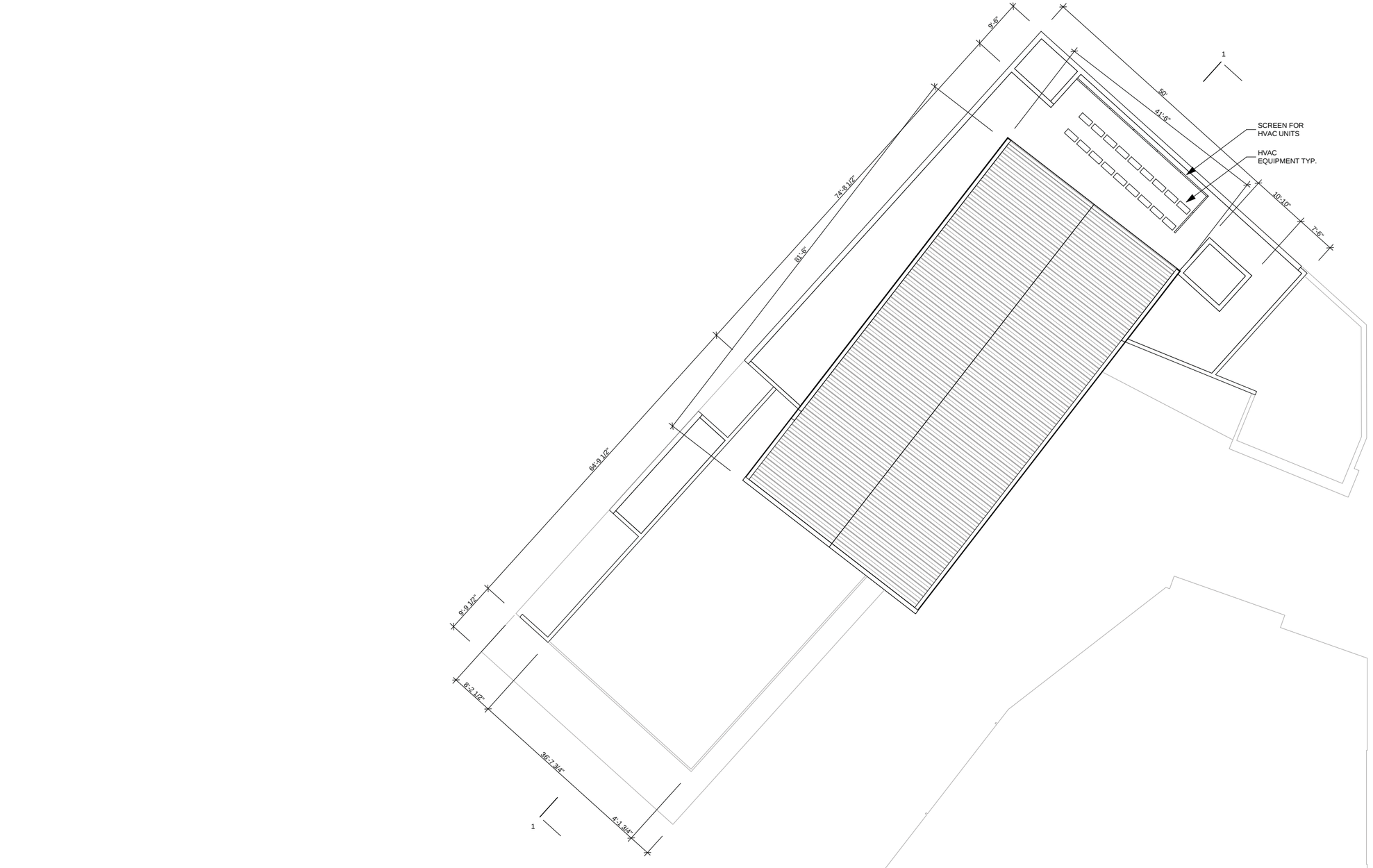
TRUE NORTH

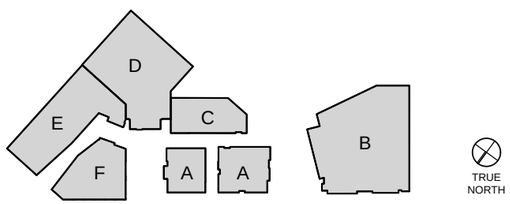
0' 10' 20' 40'

Scale: 1" = 20'

KEY PLAN

BUILDING E/F: THIRD FLOOR PLAN





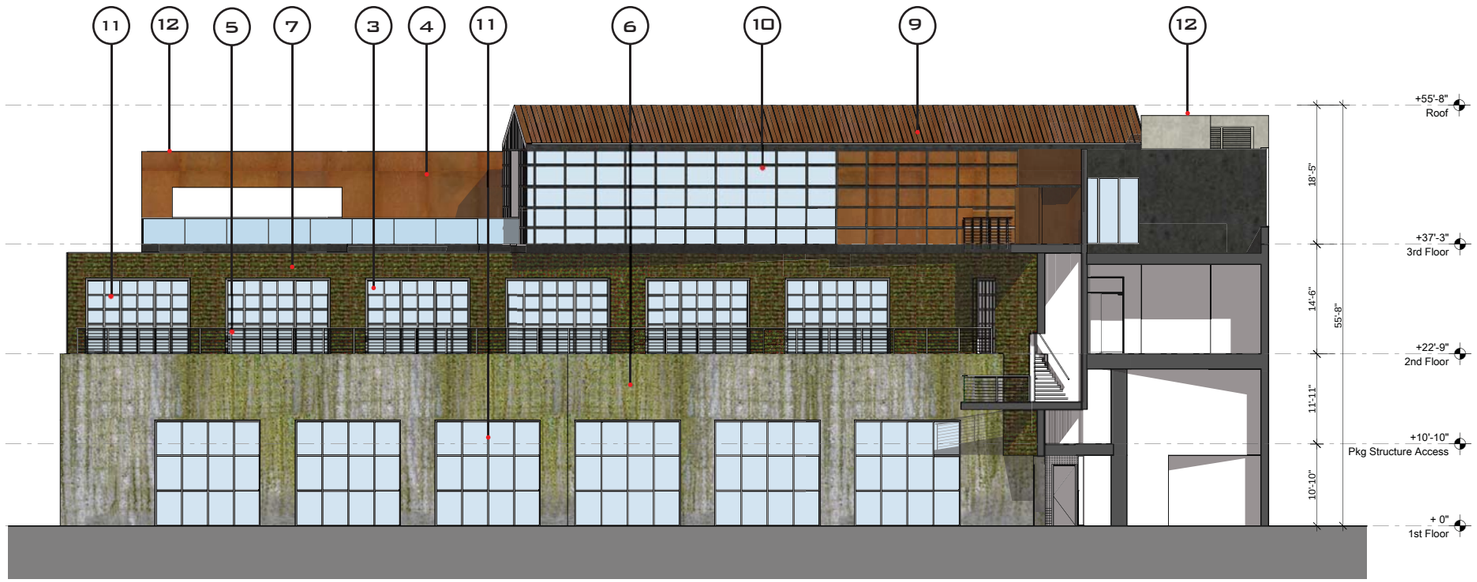
TRUE NORTH

0' 10' 20' 40'

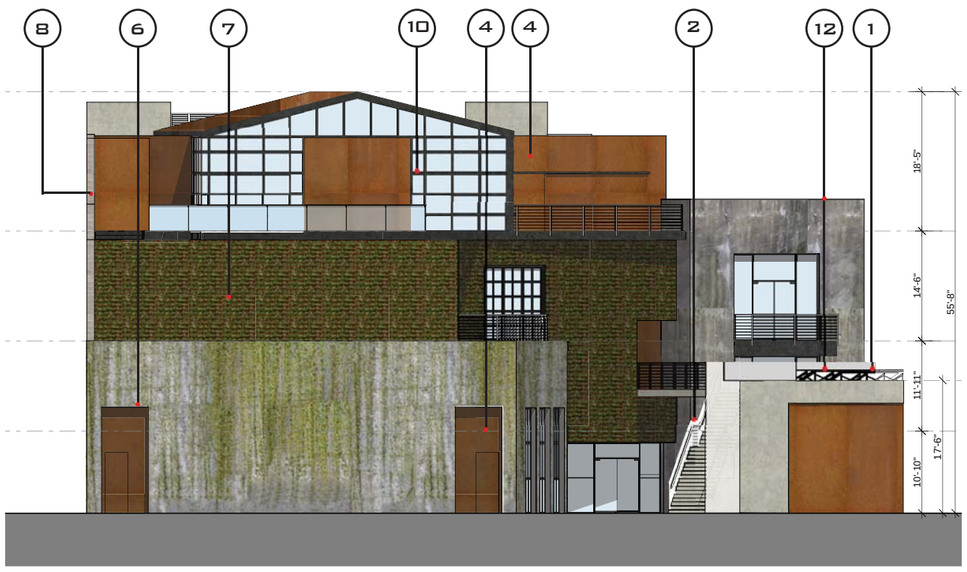
Scale: 1" = 20'

KEY PLAN

BUILDING E/F: ROOF PLAN



West Elevation Bldg E



North Elevation Bldg E - F



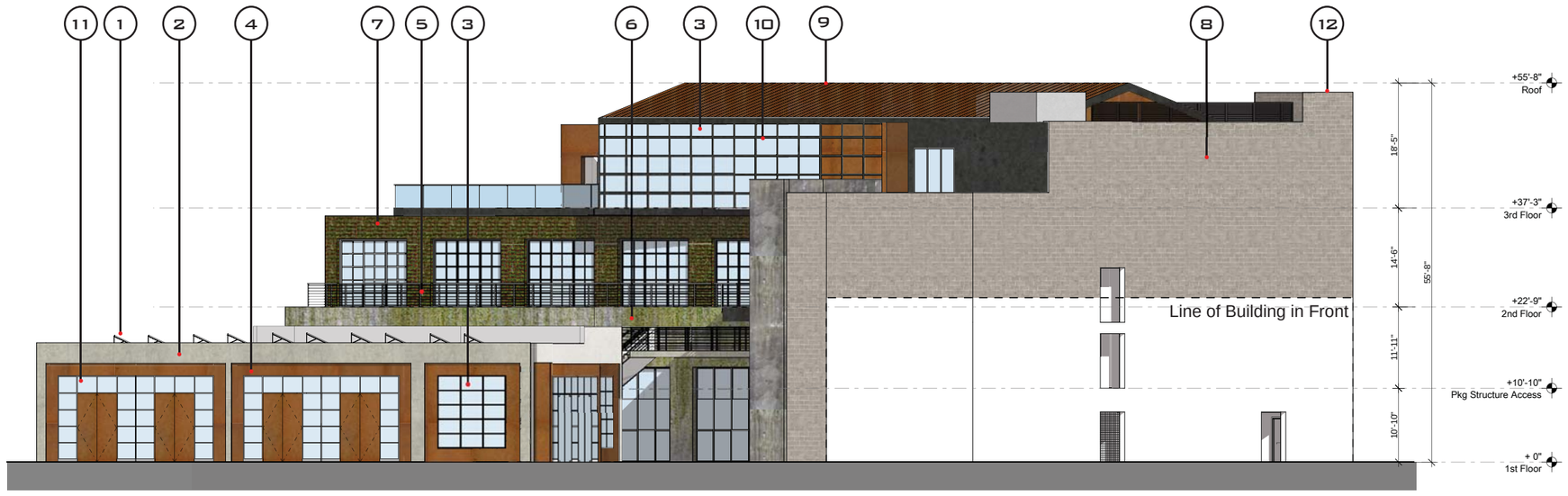
Northwest Elevation Bldg E

1. Photovoltaic Panels
2. Merlex Stucco P722 - "Artemisia, Sta. Barbara" Finish
3. Low-E Glazing, Typ.
4. Corten Steel Panels
5. Powder Coated Steel – "Olive Drab" (RAL 6022) Finish
6. Concrete – Exposed Concrete with a larger Aggregate Finish
7. Living Green Wall with Potted Plants
8. CMU – "Warm Grey" Paint Finish with Combed Face
9. Corten Steel –Corrugated Roof Panels (1.25 x 7/8)
10. Steel Window Mullions – "Aged Brass" Finish
11. Steel Window Mullions – "Blackened" Finish
12. White Cap Sheet Roofing Membrane

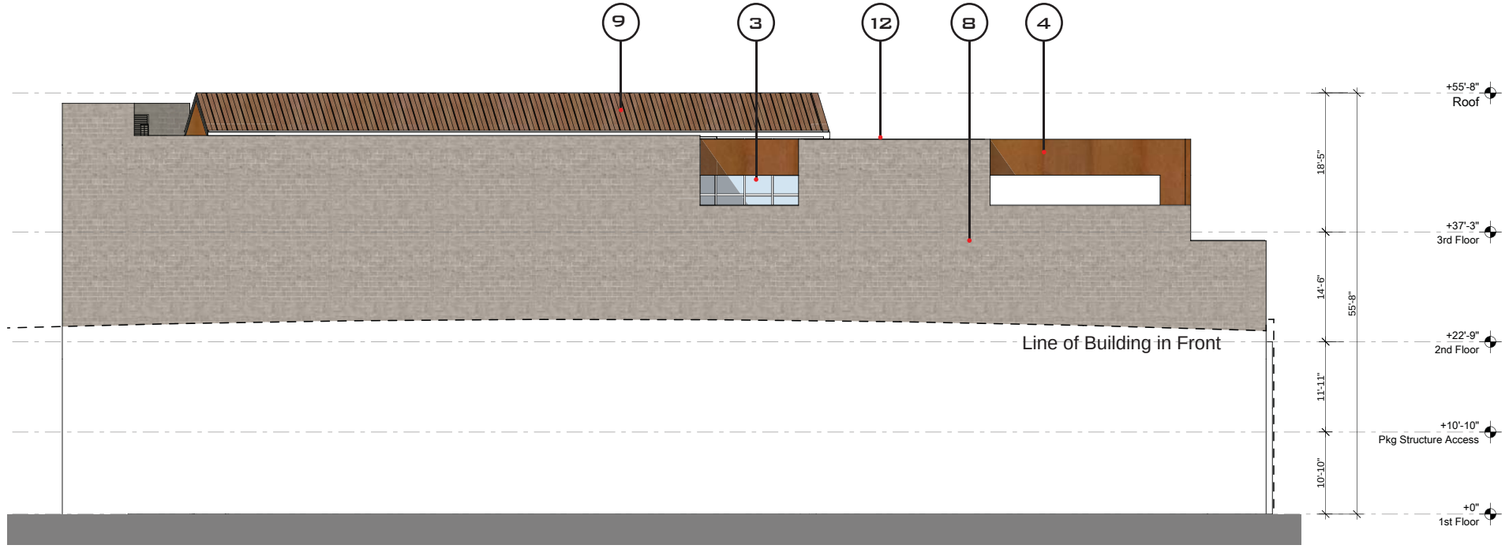
0' 10' 20' 40'

Scale: 1" = 20'

BUILDING E/F ELEVATIONS



Southwest Elevation Bldg E - F



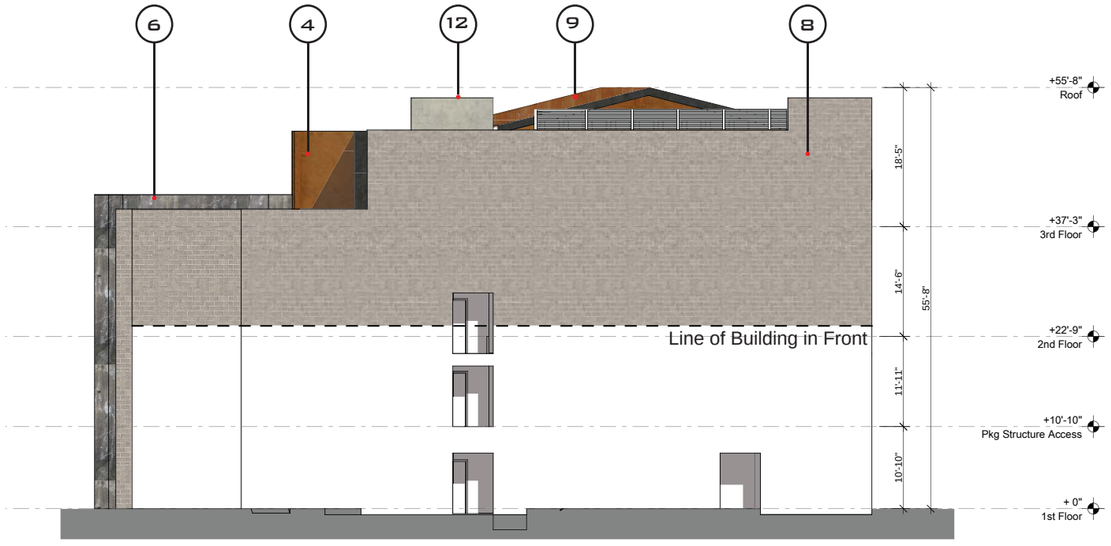
East Elevation Bldg E

0' 10' 20' 40'

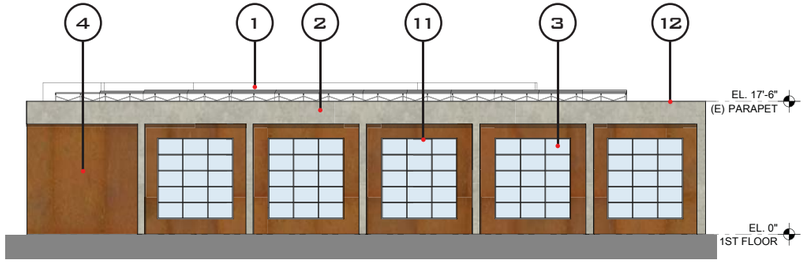
Scale: 1" = 20'

1. Photovoltaic Panels
2. Merlex Stucco P722 - "Artemisia, Sta. Barbara" Finish
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11. Steel Window Mullions – "Blackened" Finish
12. White Cap Sheet Roofing Membrane

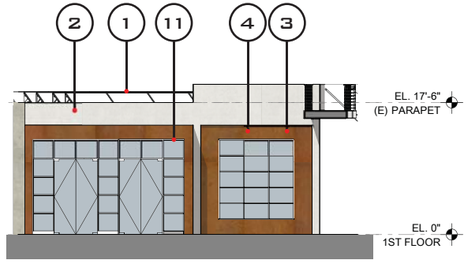
BUILDING E/F: ELEVATIONS



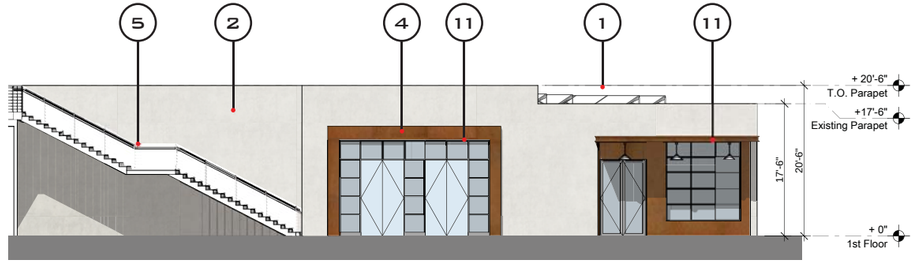
South Elevation Bldg E



Northwest Elevation Bldg F



South Elevation Bldg F



East Elevation Bldg F

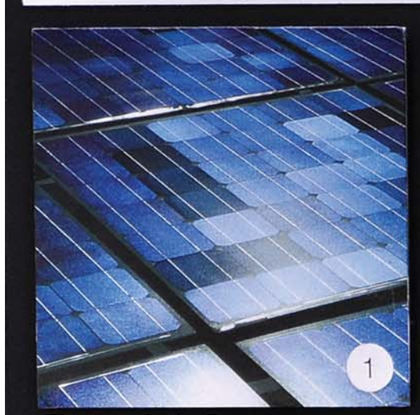
1. Photovoltaic Panels
2. Merlex Stucco P722 - “Artemisia, Sta. Barbara” Finish
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12. White Cap Sheet Roofing Membrane

0’ 10’ 20’ 40’

Scale: 1” = 20’

BUILDING E/F: ELEVATIONS

Building E/F - Greenhouse & Showroom



1

Photovoltaic Panels



2

Merlex Stucco P722 - "Artemisia, Sta. Barbara" Finish



3

Low-E Glazing, Typ.



4

Corten Steel Panels



5



6

Concrete – Exposed Concrete with a larger Aggregate Finish



7

Living Green Wall with Potted Plants



8

CMU – "Warm Grey" Paint Finish with Combed Face



9

Corten Steel –Corrugated Roof Panels (1.25 x 7/8)

Powder Coated Steel – "Olive Drab" (RAL 6022) Finish



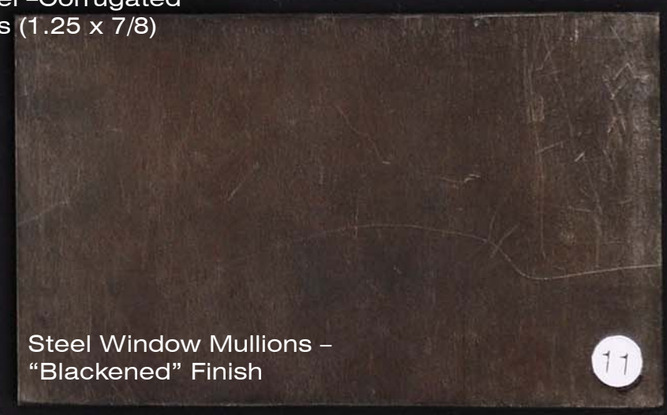
10

Steel Window Mullions – "Aged Brass" Finish



12

White Cap Sheet Roofing Membrane



11

Steel Window Mullions – "Blackened" Finish

BUILDING E/F MATERIAL BOARD

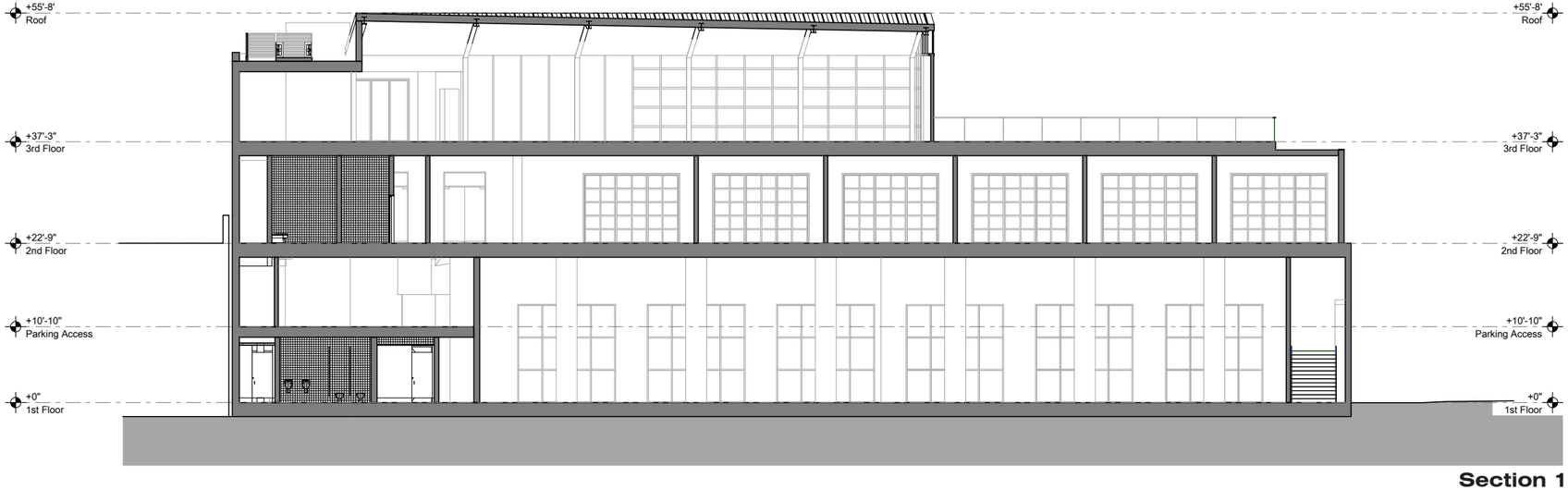
Building E/F - Greenhouse & Showroom



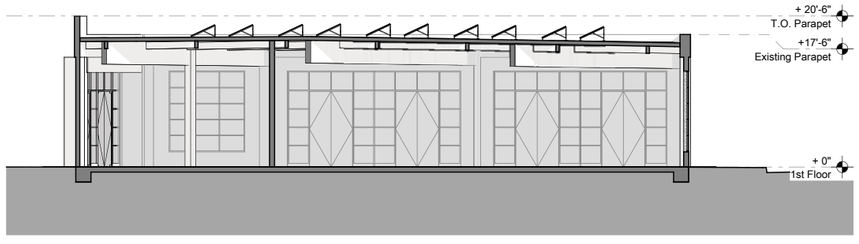
Corten Steel –Corrugated Roof Panels (1.25 x 7/8)



Low-E Glazing, Typ.



Section 1



Section 2

0' 10' 20' 40'

Scale: 1" = 20'

BUILDING E/F SECTIONS

10

CONCEPTUAL LANDSCAPE PLAN

LANDSCAPE

The Platform exterior has four distinctive landscape character zones; Washington Streetscape, the Central Courtyard, Green-house/ Landmark (Building E/F) Paseo's and WashArts (Building B). Each having unique landscape characters summarized below.

The Washington Streetscape shall follow pre-established Culver City Streetscape Guidelines. Street trees and furnishings shall be coordinated with the City.

The Central Courtyard shall be a shaded seating areas of Decomposed Granite framed by filtering specimen trees.

The Greenhouse Paseo façade will to be draped in trailing vines Vinca major (Trailing Periwinkle) and Hedera helix (English Ivy).

The WashArts building has varying colors (white, orange, red and magenta) of Bougainvillea on the stair towers to serve as a vegetative mural of color.



CONTEXTUAL SITE PLAN WITH ADJACENT PARK



0' 10' 20' 40' 100'
SCALE: 1:40

N

ILLUSTRATIVE LANDSCAPE PLAN

LEGEND:

1. CURB AND GUTTER BY OTHERS.
2. CAST-IN-PLACE CONCRETE SEATWALL
3. CAST-IN-PLACE CONCRETE STEPS
4. RAISED CONCRETE PLANTER
5. CAST-IN-PLACE CONCRETE WALL
6. RAISED DECK PLATFORM
7. TREE LOCATION
8. BENCH SEATING
9. BIKE RACK

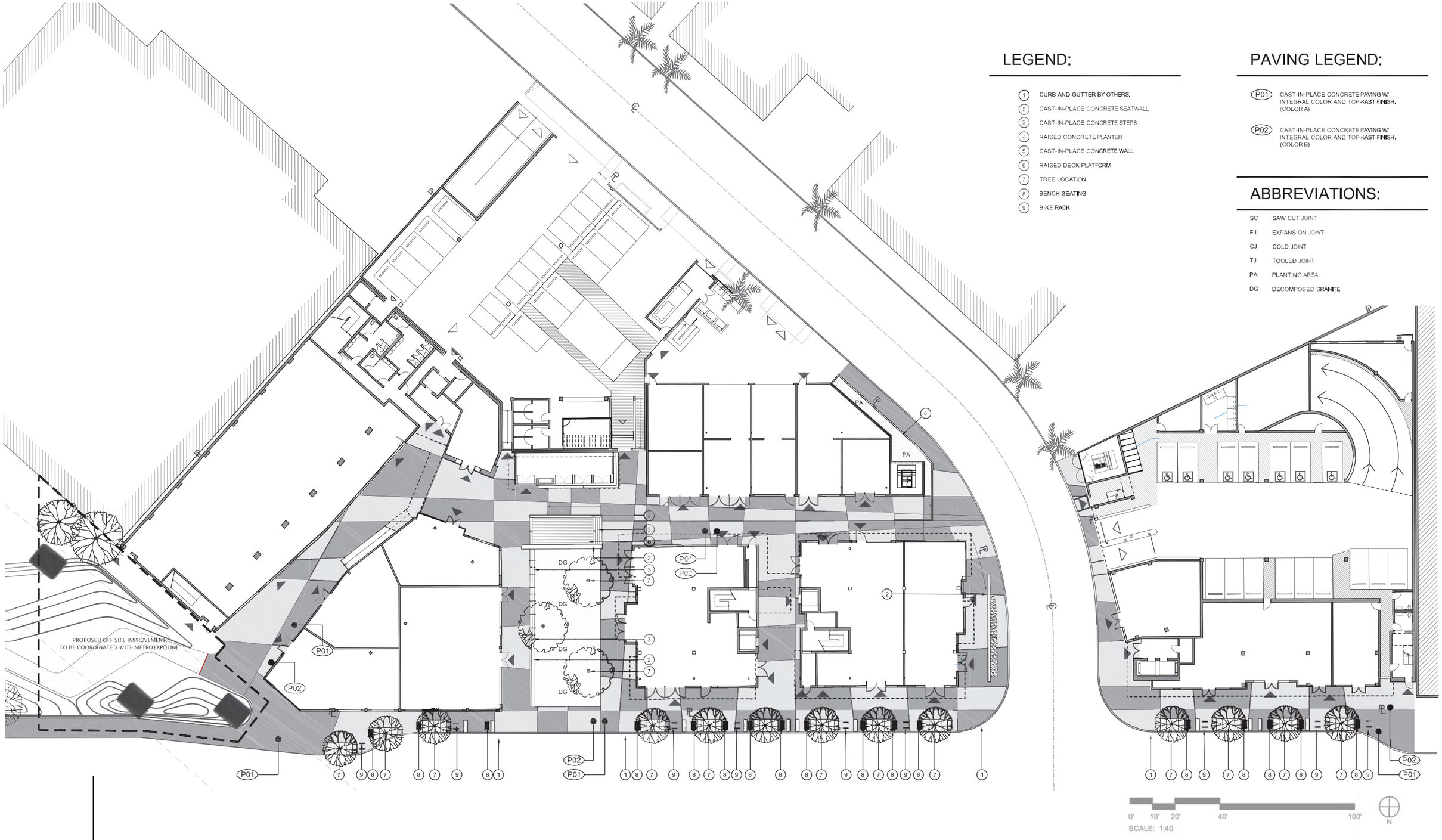
PAVING LEGEND:

P01 CAST-IN-PLACE CONCRETE PAVING W/ INTEGRAL COLOR AND TOP-KAST FINISH. (COLOR A)

P02 CAST-IN-PLACE CONCRETE PAVING W/ INTEGRAL COLOR AND TOP-KAST FINISH. (COLOR B)

ABBREVIATIONS:

SC	SAW CUT JOINT
EJ	EXPANSION JOINT
CJ	COLD JOINT
TJ	TOOLED JOINT
PA	PLANTING AREA
DG	DECOMPOSED GRANITE



LAYOUT AND MATERIALS PLAN



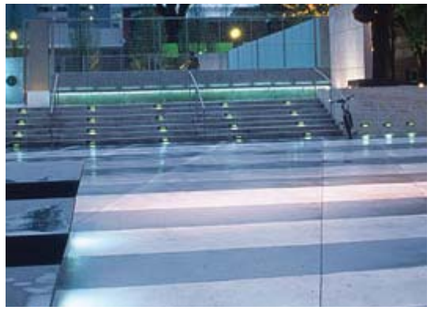
Decomposed Granite



Concrete Honed Finish



CIP Concrete Seat Wall



Paving Colors



Vegetated Structure



Ivy Wall



Ivy Wall



Trees in Decomposed Granite



Courtyard Seating and Olives



Raised Wood Decking



Concrete Seat Wall



Bike Rack

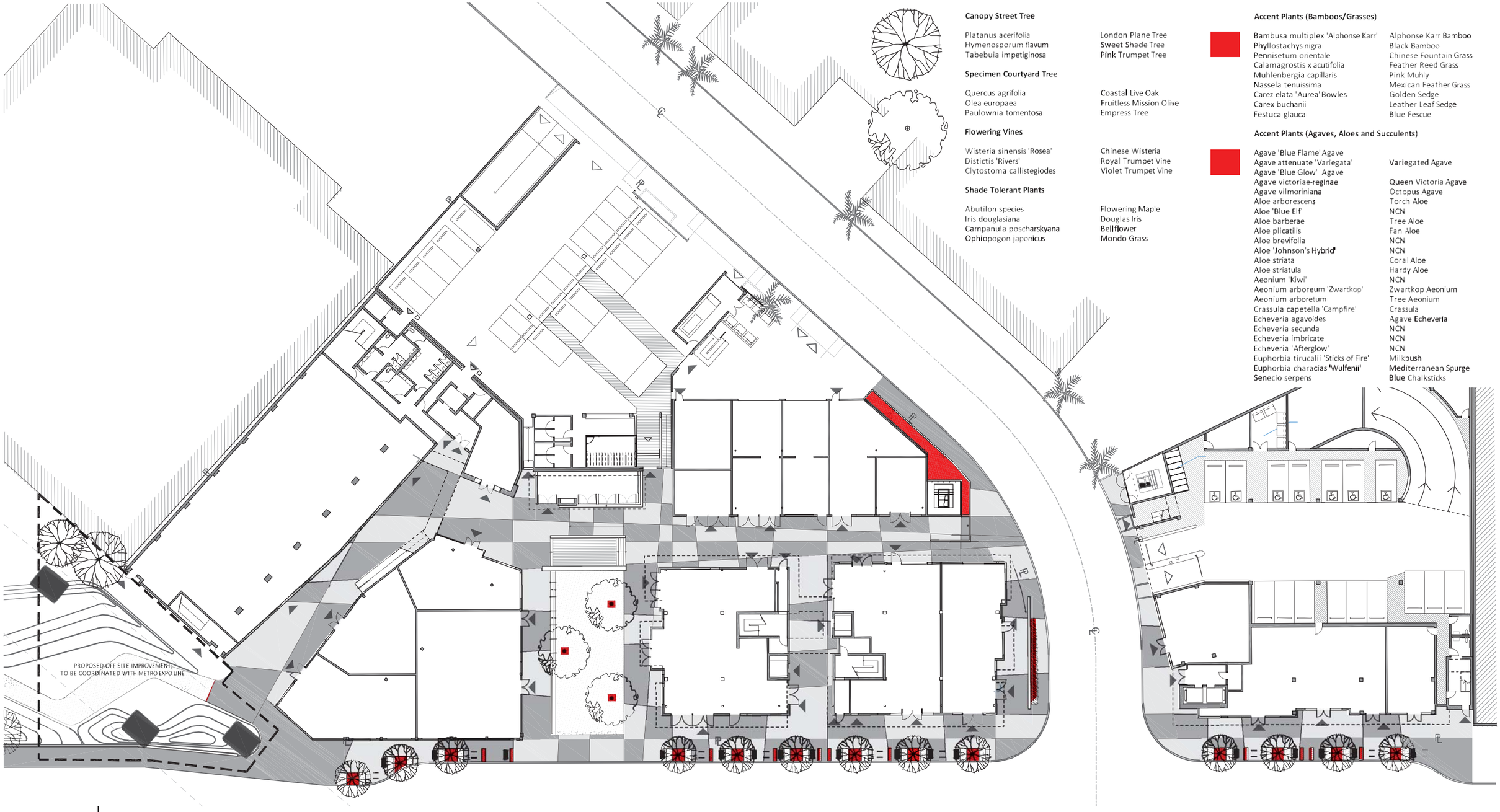


CIP Concrete Steps



Bench Seating

MATERIAL AND FURNISHING IMAGERY



Canopy Street Tree

Platanus acerifolia	London Plane Tree
Hymenosporum flavum	Sweet Shade Tree
Tabebuia impetiginosa	Pink Trumpet Tree

Specimen Courtyard Tree

Quercus agrifolia	Coastal Live Oak
Olea europaea	Fruitless Mission Olive
Paulownia tomentosa	Empress Tree

Flowering Vines

Wisteria sinensis 'Rosea'	Chinese Wisteria
Distictis 'Rivers'	Royal Trumpet Vine
Clytostoma callistegiodes	Violet Trumpet Vine

Shade Tolerant Plants

Abutilon species	Flowering Maple
Iris douglasiana	Douglas Iris
Campanula poscharskyana	Bellflower
Ophiopogon japonicus	Mondo Grass

Accent Plants (Bamboos/Grasses)

Bambusa multiplex 'Alphonse Karr'	Alphonse Karr Bamboo
Phyllostachys nigra	Black Bamboo
Pennisetum orientale	Chinese Fountain Grass
Calamagrostis x acutifolia	Feather Reed Grass
Muhlenbergia capillaris	Pink Muhly
Nassela tenuissima	Mexican Feather Grass
Carez elata 'Aurea' Bowles	Golden Sedge
Carex buchanii	Leather Leaf Sedge
Festuca glauca	Blue Fescue

Accent Plants (Agaves, Aloes and Succulents)

Agave 'Blue Flame' Agave	
Agave attenuate 'Variegata'	Variegated Agave
Agave 'Blue Glow' Agave	
Agave victoriae-reginae	Queen Victoria Agave
Agave vilmoriniana	Octopus Agave
Aloe arborescens	Torch Aloe
Aloe 'Blue Elf'	NCN
Aloe barberae	Tree Aloe
Aloe plicatilis	Fan Aloe
Aloe brevifolia	NCN
Aloe 'Johnson's Hybrid'	NCN
Aloe striata	Coral Aloe
Aloe striatula	Hardy Aloe
Aeonium 'Kiwi'	NCN
Aeonium arboreum 'Zwartkop'	Zwartkop Aeonium
Aeonium arboretum	Tree Aeonium
Crassula capetella 'Campfire'	Crassula
Echeveria agavoides	Agave Echeveria
Echeveria secunda	NCN
Echeveria imbricate	NCN
Echeveria 'Afterglow'	NCN
Euphorbia tirucalii 'Sticks of Fire'	Milkbush
Euphorbia characias 'Wulfenii'	Mediterranean Spurge
Senecio serpens	Blue Chalksticks

0' 10' 20' 40' 100'
SCALE: 1:40

N

PLANTING DIAGRAM



Tabebuia impetiginosa
Pink Trumpet Tree



Hymenosporum flavum
Sweet Shade Tree



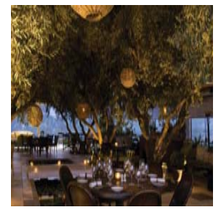
Platanus acerifolia
London Plane Tree



Paulownia tomentosa
Empress Tree



Quercus agrifolia
California Coast Live Oak



Olea europeae
Fruitless Mission Olive



Ophiopogon japonicus
Mondo Grass



Campanula poscharskyana
Bellflower



Iris douglasiana
Douglas Iris



Clytostoma callistegiodes
Violet Trumpet Vine



Distictis 'Rivers'
Royal Trumpet Vine



Wisteria sinensis 'Rosea'
Chinese Wisteria



Nassela tenuissima
Mexican Feather Grass



Muhlenbergia capillaris
Pink Muhly



Calamagrostis x acutifolia
Feather Reed Grass



Pennisetum orientale
Chinese Fountain Grass



Phyllostachys nigra
Black Bamboo



Bambusa multiplex 'AK'
Alphonse Karr Bamboo



Festuca Glauca
Blue Fescue



Carex buchanii
Leather Leaf Sedge



Carex elata "Aurea'
Bowles Golden Sedge



Aloe arborescens
Torch Aloe



Agave vilmoriniana
Octopus Agave



Agave victoriae-reginae
Queen Victoria Agave



Agave 'Blue Glow'
Agave



Agave attenuata 'Variegata'
Variegated Agave



Agave 'Blue Flame'
Agave



Aloe striata
Coral Aloe



Aloe 'Johnson's Hybrid'
No Common Name



Aloe brevifolia
No Common Name



Aloe plicatilis
Fan Aloe



Aloe barberae
Tree Aloe



Aloe 'Blue Elf'
No Common Name



Crassusa captella 'Campfire'
Crassula



Aeonium arboreum
Tree Aeonium



Aeonium arboreum 'Zwartkop'
Zwartkop Aeonium



Aeonium 'Kiwi'
No Common Name



Echeveria 'Afterglow'
No Common Name



Echeveria imbricate
No Common Name



Echeveria secunda
No Common Name



Echeveria agavoides
Agave Echeveria



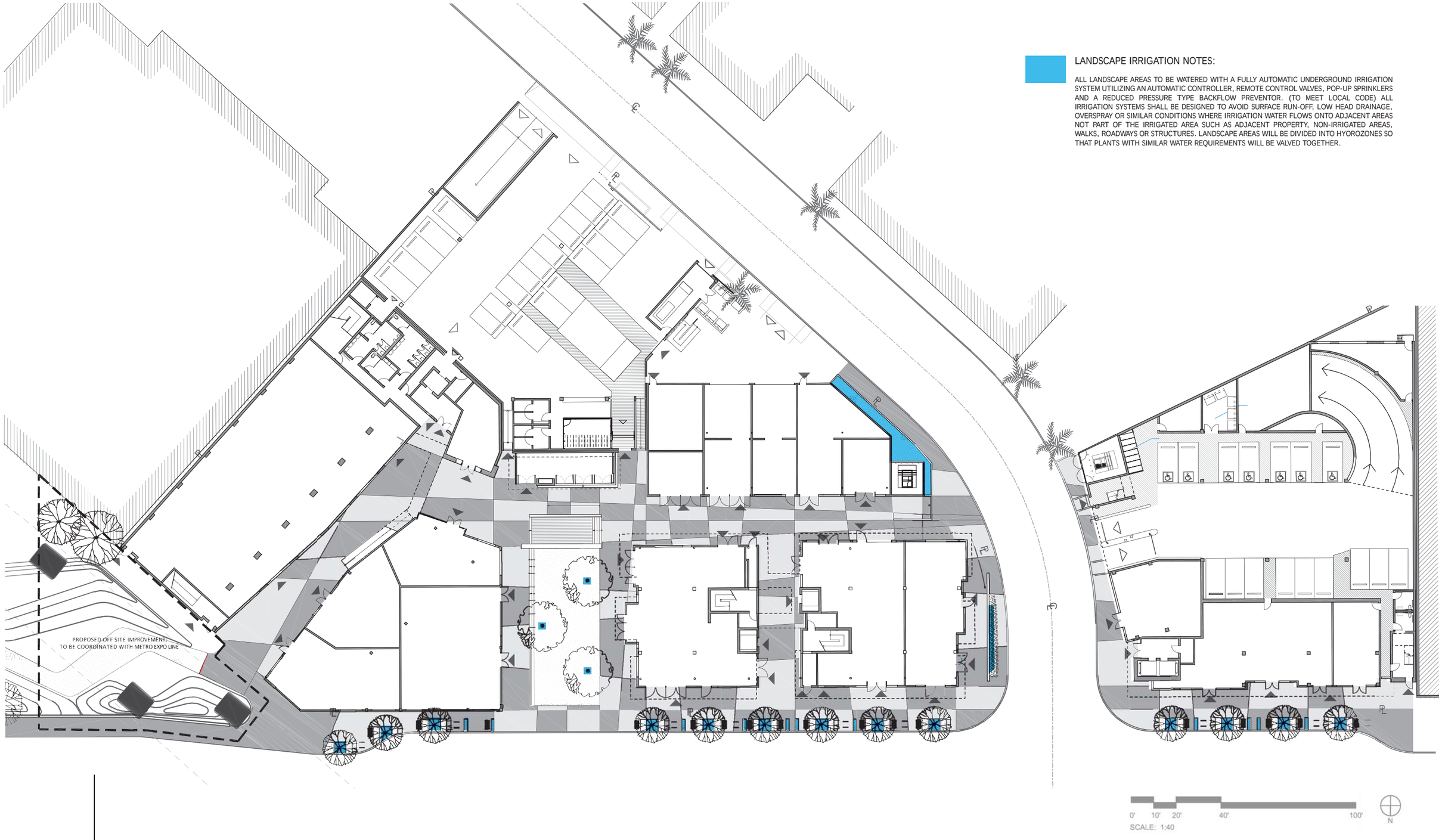
Senecio serpens
Blue Chalksticks



Euphorbia characias 'Wulfenii'
Mediterranean Spurge



Euphorbia tirucalii 'Sticks of Fire'
Milkbush



LANDSCAPE IRRIGATION NOTES:

ALL LANDSCAPE AREAS TO BE WATERED WITH A FULLY AUTOMATIC UNDERGROUND IRRIGATION SYSTEM UTILIZING AN AUTOMATIC CONTROLLER, REMOTE CONTROL VALVES, POP-UP SPRINKLERS AND A REDUCED PRESSURE TYPE BACKFLOW PREVENTOR. (TO MEET LOCAL CODE) ALL IRRIGATION SYSTEMS SHALL BE DESIGNED TO AVOID SURFACE RUN-OFF, LOW HEAD DRAINAGE, OVERSPRAY OR SIMILAR CONDITIONS WHERE IRRIGATION WATER FLOWS ONTO ADJACENT AREAS NOT PART OF THE IRRIGATED AREA SUCH AS ADJACENT PROPERTY, NON-IRRIGATED AREAS, WALKS, ROADWAYS OR STRUCTURES. LANDSCAPE AREAS WILL BE DIVIDED INTO HYOROZONES SO THAT PLANTS WITH SIMILAR WATER REQUIREMENTS WILL BE VALVED TOGETHER.

IRRIGATION DIAGRAM



B WASHINGTON BLVD STREETSCAPE EAST-WEST



A WASHINGTON BLVD STREETSCAPE NORTH SOUTH

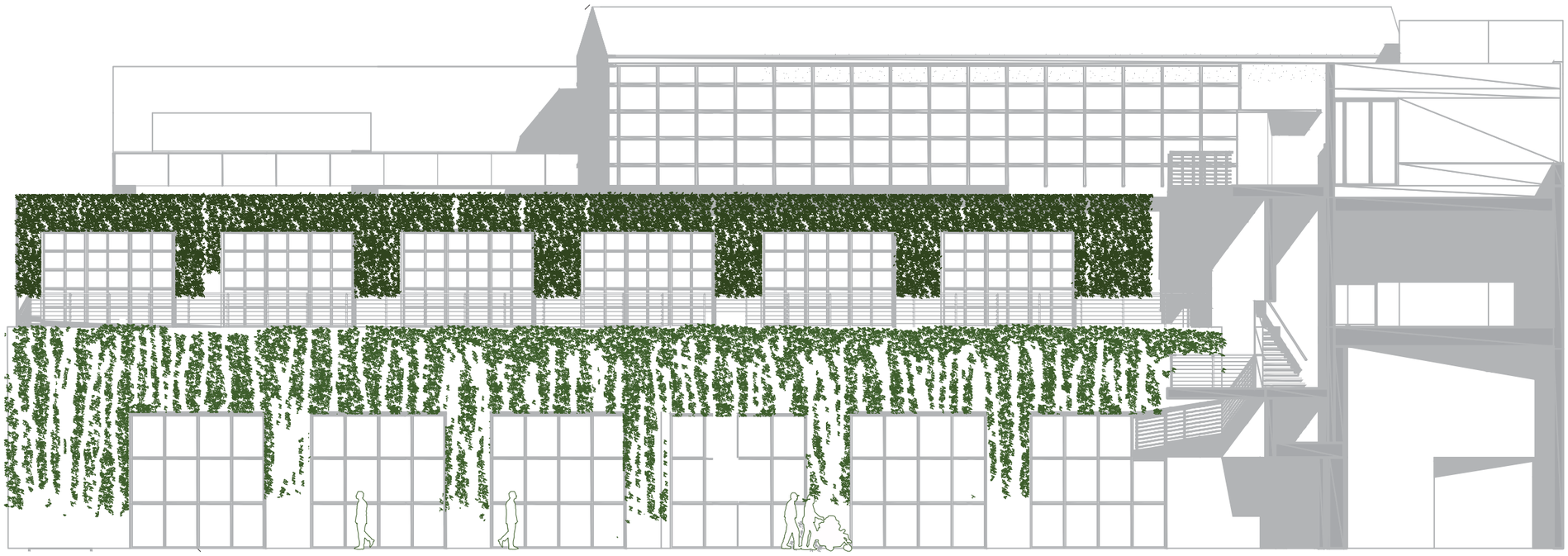
STREETSCAPE PLANTING



A **CENTRAL COURTYARD EAST WEST**

0' 10' 20'

COURTYARD PLANTING



A GREENHOUSE CORRIDOR EAST WEST

0' 10' 20'

11

CONCEPTUAL LIGHTING

Lighting Design Narrative

The Lighting Design for the Platform project strives to create an inviting and dynamic nighttime presence that is both energy-efficient and responsive to the multiple demands of both the tenants and visitors at this exciting mixed-use development.

Building and Paseo Lighting

Lensed LED downlights (ambient lighting) integrated into the exterior architecture at building canopies will produce light levels that strike a restrained balance, making people feel good and comfortable while providing retailers and restaurant tenants with lighting that invites customers. This lighting move is clean and simple, meant to reinforce the architecture with a refined aesthetic that is also highly energy-efficient. Light levels will vary between 5fc and 25fc based on specific locations under building canopies. Because the public paseo areas are relatively narrow, the architectural canopies serve as the location for the main source of lighting, allowing the center landscaped areas to be lit using low-level landscape lighting and lighting integrated into the hardscape.

Decorative surface-mounted light fixtures along with decorative pendants shall be used on buildings to provide scale to the architecture and to establish elements of visual interest. These fixtures shall be of a design meant to support the architectural style of the buildings. All wall/building-mounted lighting shall provide glare free, full-cutoff lighting.

Facade Lighting

Facade lighting will be subtle yet will strive to reinforce the architecture of the building while also helping to establish a nighttime presence for the project. Lighting shall be executed so as to prevent lighting from spilling onto neighboring properties. Uplighting shall be limited and all lighting sources shall provide cut-off optics to prevent unwanted visual glare. The goal is to establish a nighttime presence for the development as a whole that works on both a pedestrian-scale and on a larger scale that helps to communicate the character and qualities of the project to riders on the Expo line as well as to drivers and pedestrians.

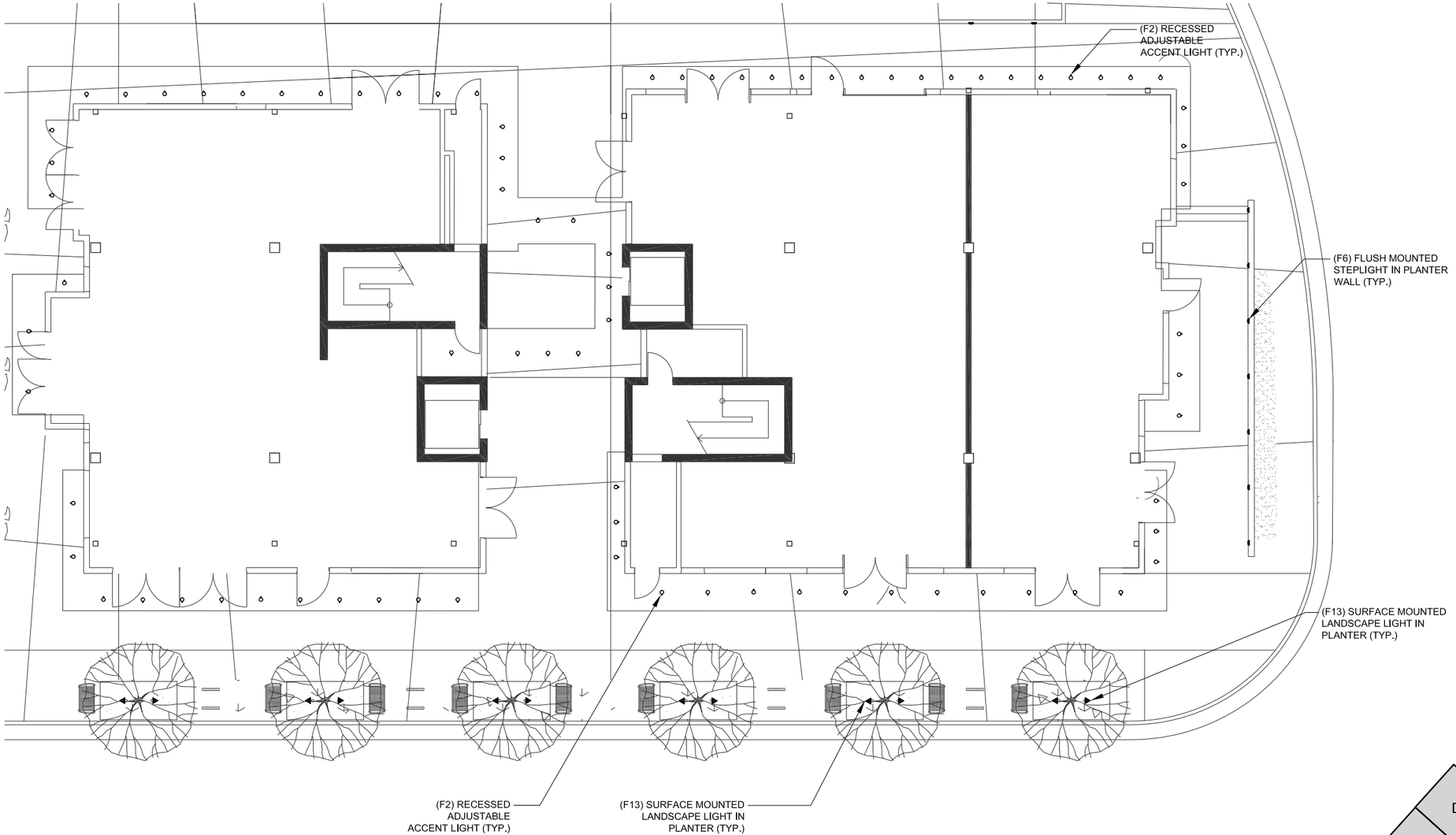
Site and Landscape Lighting

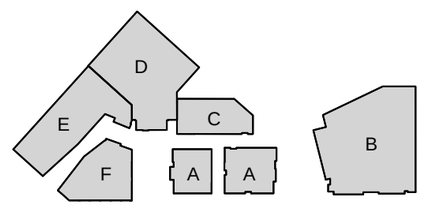
Feature trees shall be illuminated by small-scale, energy efficient uplights. Along prominent streetscapes, these fixtures shall be integrated into the raised planter beds. At other locations, in-grade uplights shall be integrated into the hardscape to illuminate feature trees. Low-level steplights shall be used in planter and step walls to provide orientation lighting and wayfinding. A creative use of suspended lighting fixtures will be implemented in the ‘park’ feature, where decorative light fixtures will be hung from mature trees creating a beautiful canopy of lighting, helping to reinforce the park as a unique gathering place for guests to the project during both daytime and nighttime hours. The suspended lighting creates the notion of ‘festoon’ lighting overhead and serves to meet the many proposed uses of this prominent outdoor area.

The large planted living walls shall be illuminated with recessed linear LED uplights.

All lighting shall comply with all prevailing energy and building codes, specifically California’s Title 24. Lamps shall be selected to accurately render color, and all lighting shall maintain a consistent color temperature. Unless used for specific decorative purposes, no lamps shall be visible to direct view and no lighting shall produce unwanted glare.

SCHEMATIC LIGHTING PLAN - BUILDING A

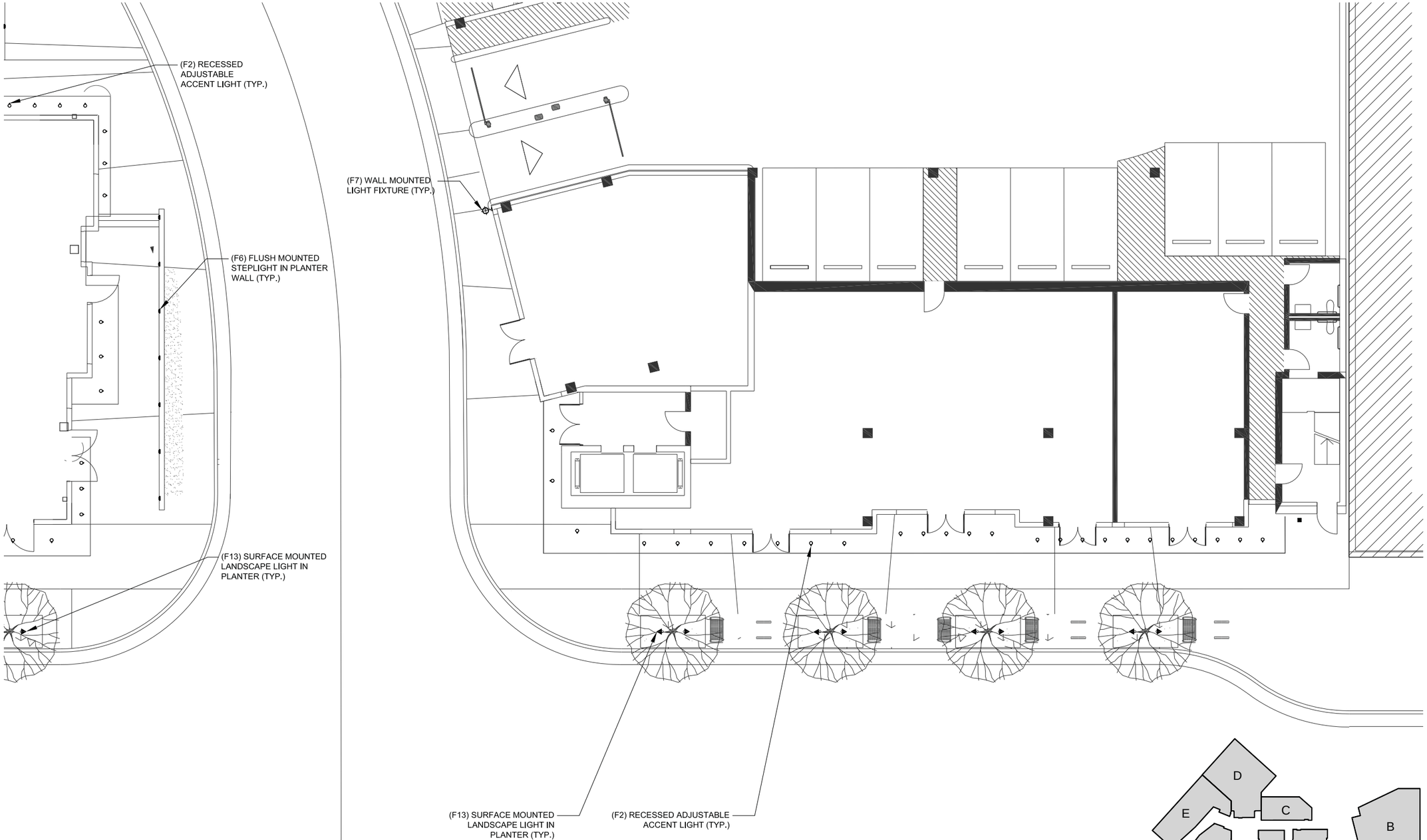


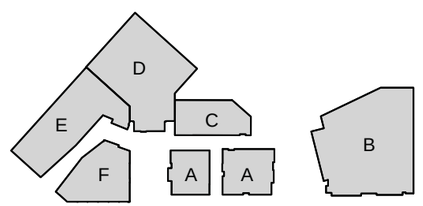


KEY PLAN

SCALE: 1/16” = 1’-0”

SCHEMATIC LIGHTING PLAN - BUILDING B





KEY PLAN

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

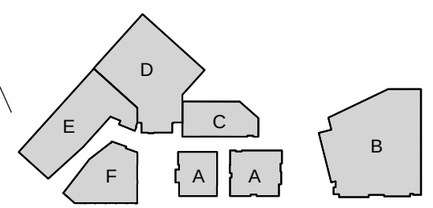
SCHEMATIC LIGHTING PLAN - BUILDING C

(F12) IN-GRADE LINEAR LED UPLIGHTS AT GREEN SCREEN (TYP.)

(F13) SURFACE MOUNTED LANDSCAPE LIGHT IN PLANTER (TYP.)

(F9) WALL MOUNTED LIGHT FIXTURE (FULL-CUTOFF) (TYP.)

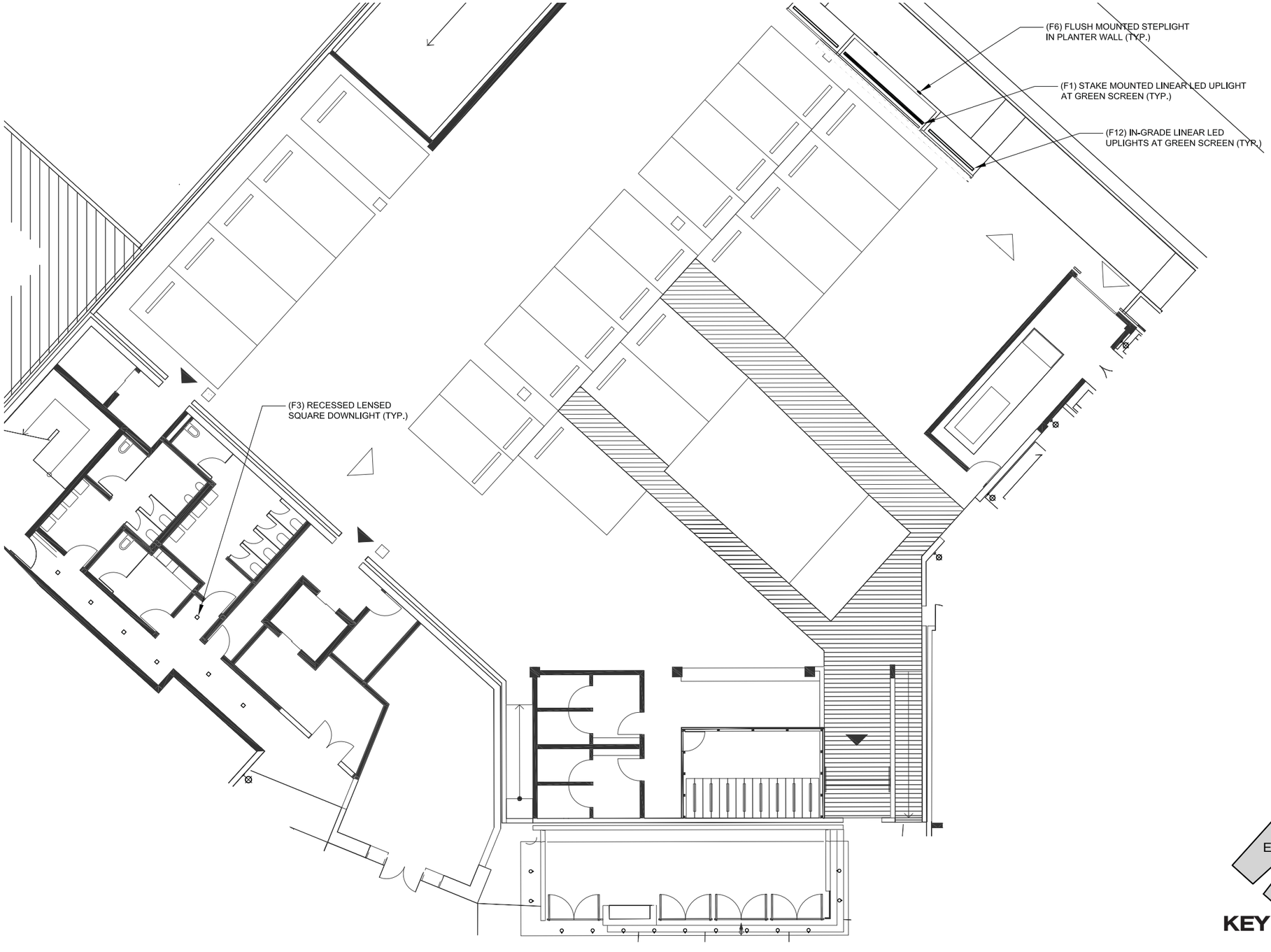
(F2) RECESSED ADJUSTABLE ACCENT LIGHT (TYP.)

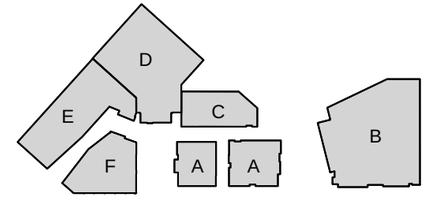


KEY PLAN

SCALE: 1/16” = 1’-0”

SCHEMATIC LIGHTING PLAN - BUILDING D

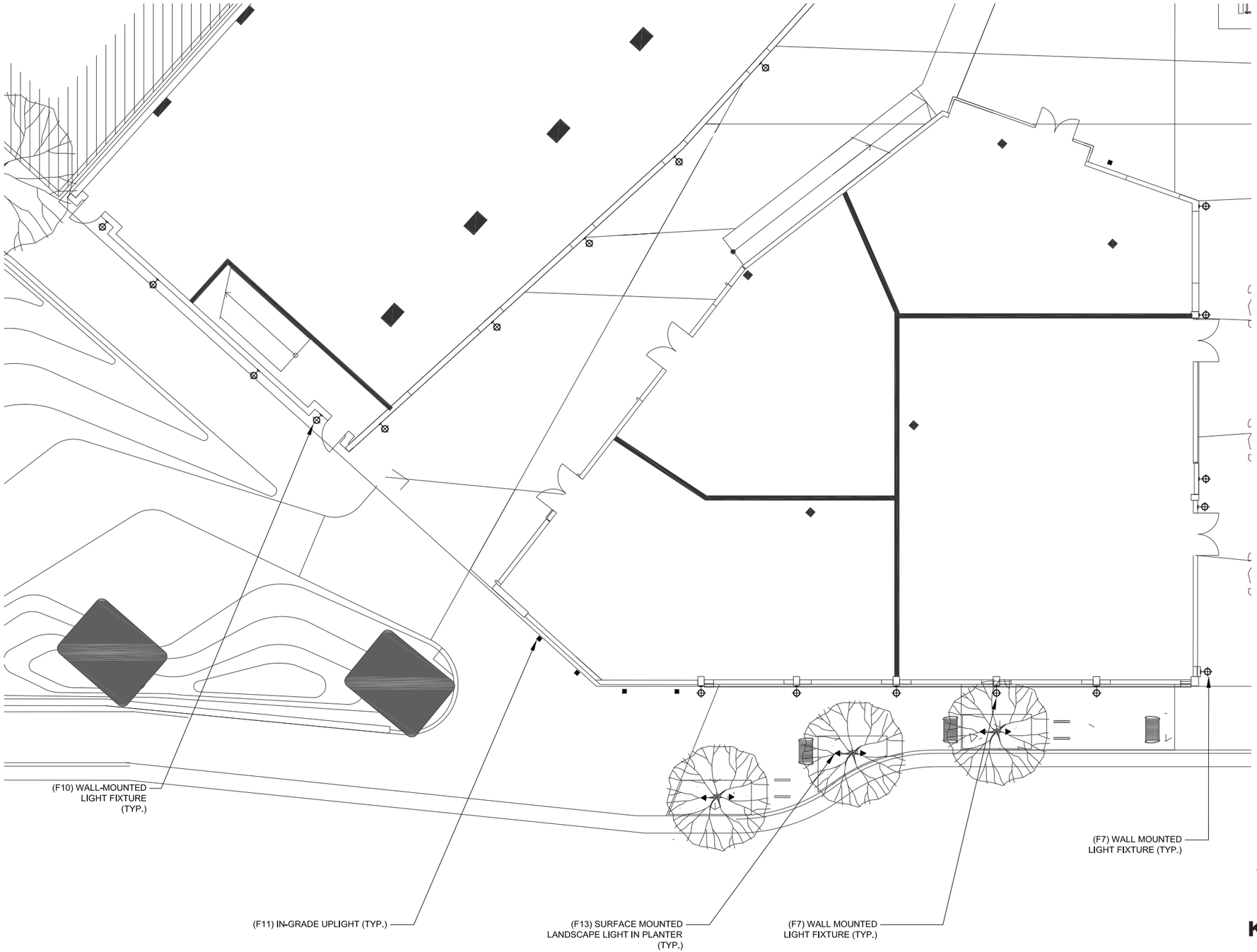


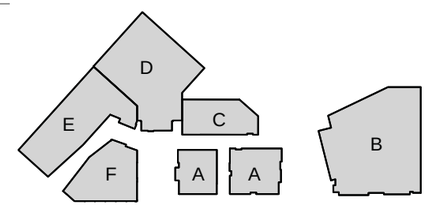


KEY PLAN

SCALE: 1/16” = 1’-0”

SCHEMATIC LIGHTING PLAN - BUILDINGS E & F

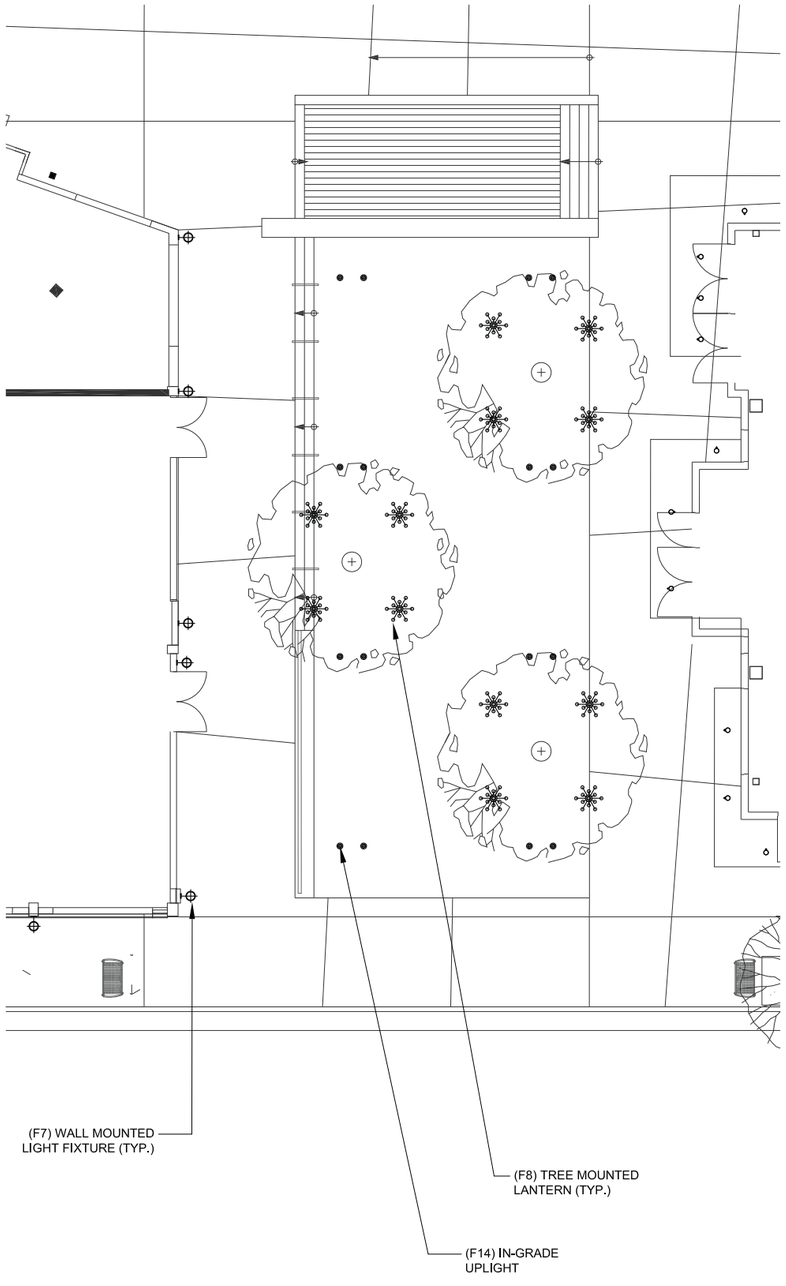


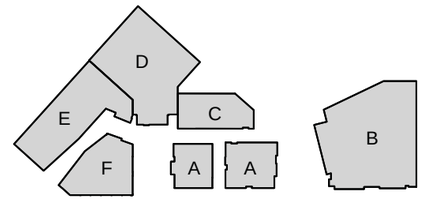


KEY PLAN

SCALE: 1/16” = 1’-0”

SCHEMATIC LIGHTING PLAN - CENTRAL COURTYARD





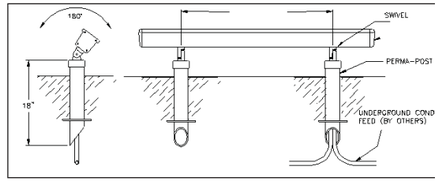
KEY PLAN

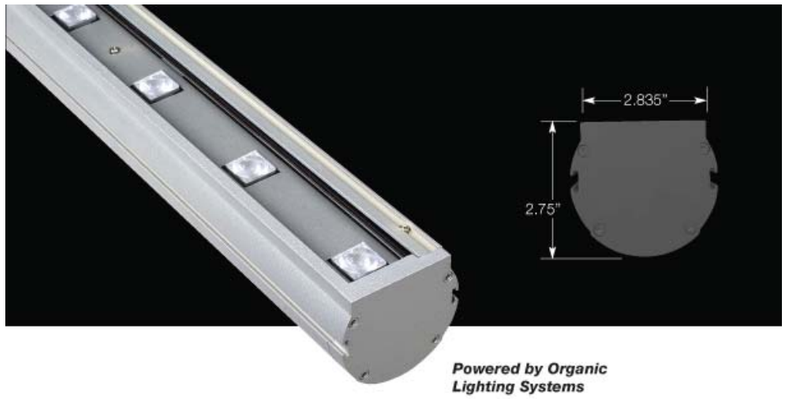
SCALE: 1/16” = 1’-0”

FIXTURE TYPE: F1
STAKE MOUNTED LINEAR LED UPLIGHT (IN PLANTERS)



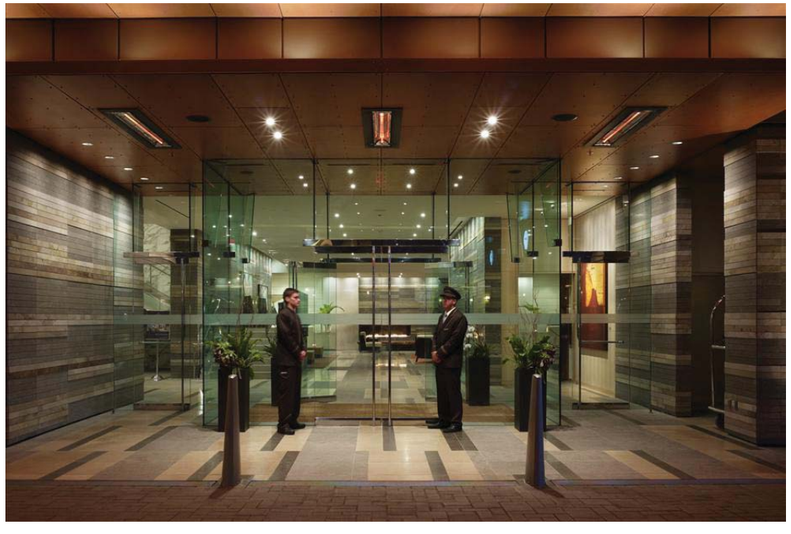
PERMA POSTS





Powered by Organic Lighting Systems

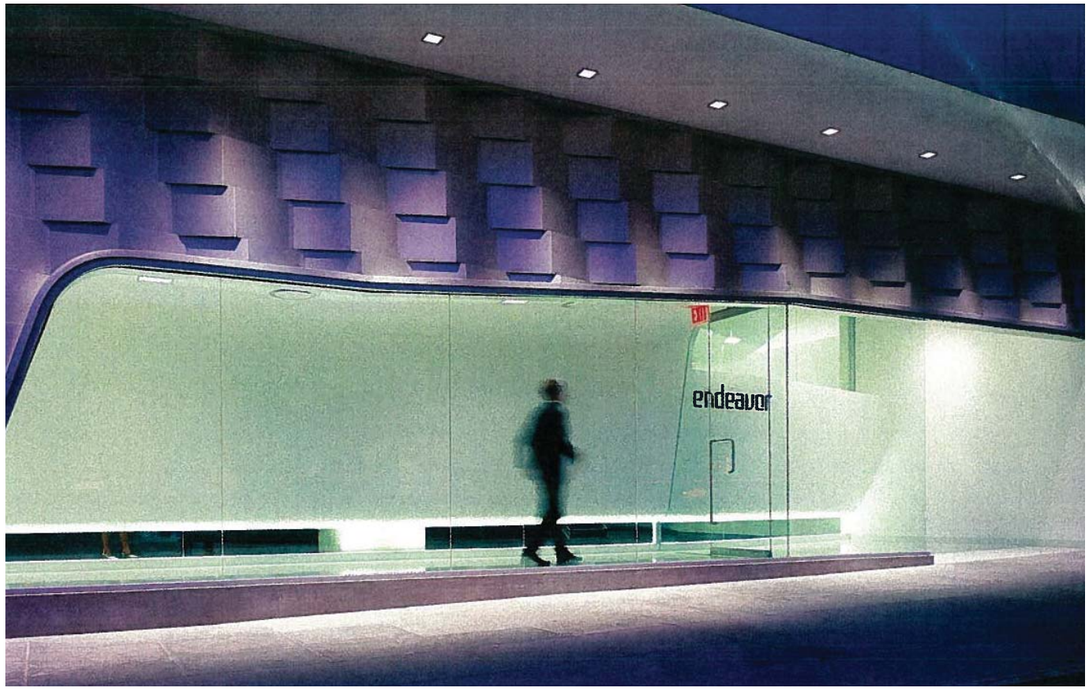
FIXTURE TYPE: F2
RECESSED ADJUSTABLE ACCENT LIGHT





FIXTURE TYPE: F3
RECESSED COMPACT FLUORESCENT DOWNLIGHT



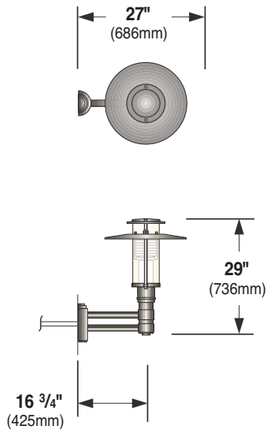


FIXTURE TYPE: F6
FLUSH MOUNTED STEPLIGHT

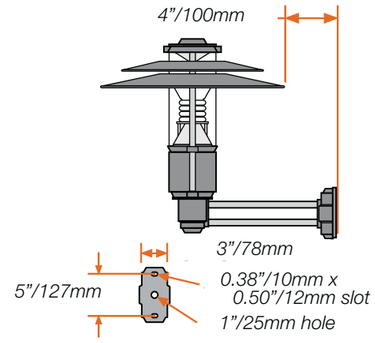




FIXTURE TYPE: F7
WALL MOUNTED LIGHT FIXTURE







AWM2

Wall mounted arm for SP2.
Wall plate is 6.375"/162mm x 3.5"/89mm
WT: 5 lbs. EPA: 0.11



FIXTURE TYPE: F8
TREE MOUNTED LANTERN











LANTERN OPTIONS

FIXTURE TYPE: F9

WALL MOUNTED LIGHT FIXTURE (FULL CUT-OFF)

DILUME 300x230

DILUME 300X230 B

G12 1x70w MH M139 T6

GX24q-5 1x57w CFL

DILUME 300X230 M

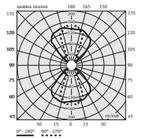
GX24q-5 1x57w CFL

DILUME 300X230 M/A
DILUME 300X230 M/B
DILUME 300X230 M/C

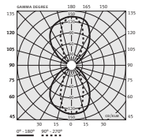
G12 1x70w MH M139 T6

Luminaire for interior and exterior use.
Powdercoat 10 step process heavy extruded aluminum housing 11.8" width, featuring varying sizes to accommodate the electrical components.
Powdercoat copper free die cast aluminum trims and caps.
Powdercoat 10 step process die cast aluminum bracket for wall mounted applications, featuring ease of installation.
Clear tempered glass diffuser, 0.157" thick.
Polymer gasket.
Aluminum type 99.85 reflectors with controlled optics G12 lamp type versions, featuring light beam type A, B, or C.
B versions, with dual light output, are supplied with either one or two lamps and are specifically designed for direct/indirect light distribution.
M versions, with single light output, are supplied with a single lamp and can be used for either direct or indirect light distribution.
Compact fluorescent or HID lamp versions with direct/indirect light distribution.
Reflectors can be supplied varying combinations. Consult factory.
UL Listed . Suitable for wet locations.

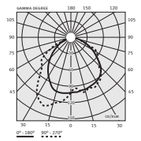
Dilume 300x230 B
1x70W MH



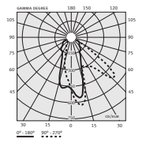
Dilume 300x230 B
1x57W CFL



Dilume 300x230 M
1x57W CFL



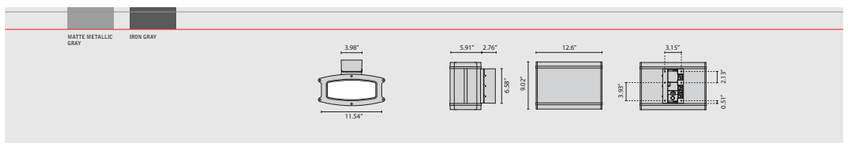
Dilume 300x230 M/B
1x70W MH



Dilume 300x230 M/A
1x70W MH

Dilume 300x230 M/C
1x70W MH

12

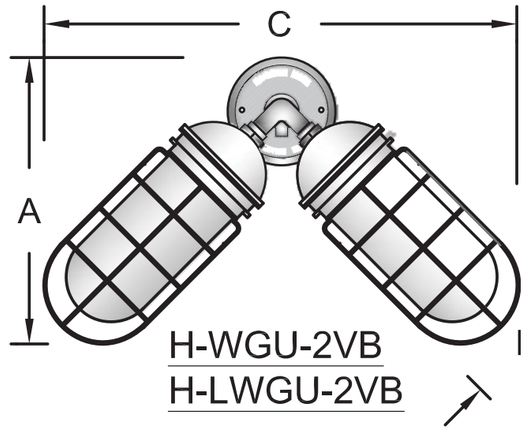






FIXTURE TYPE: F10

WALL MOUNTED LIGHT FIXTURE

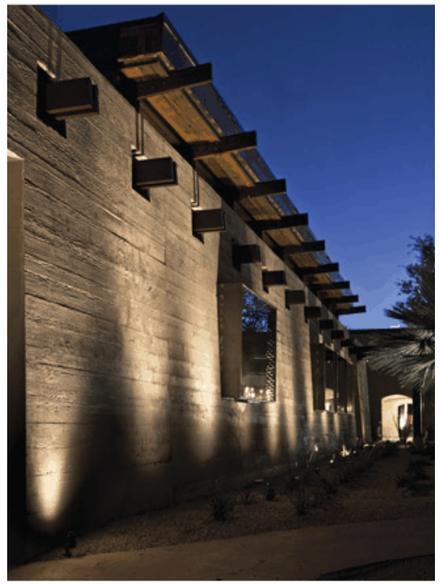






FIXTURE TYPE: F11

IN-GRADE UPLIGHT (LOW VOLTAGE)



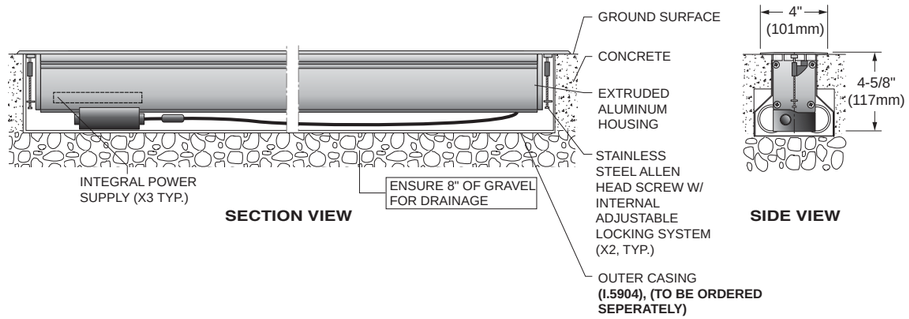






FIXTURE TYPE: F12

IN-GRADE LINEAR LED UPLIGHT





FIXTURE TYPE: F13
LANDSCAPE ACCENT LIGHT



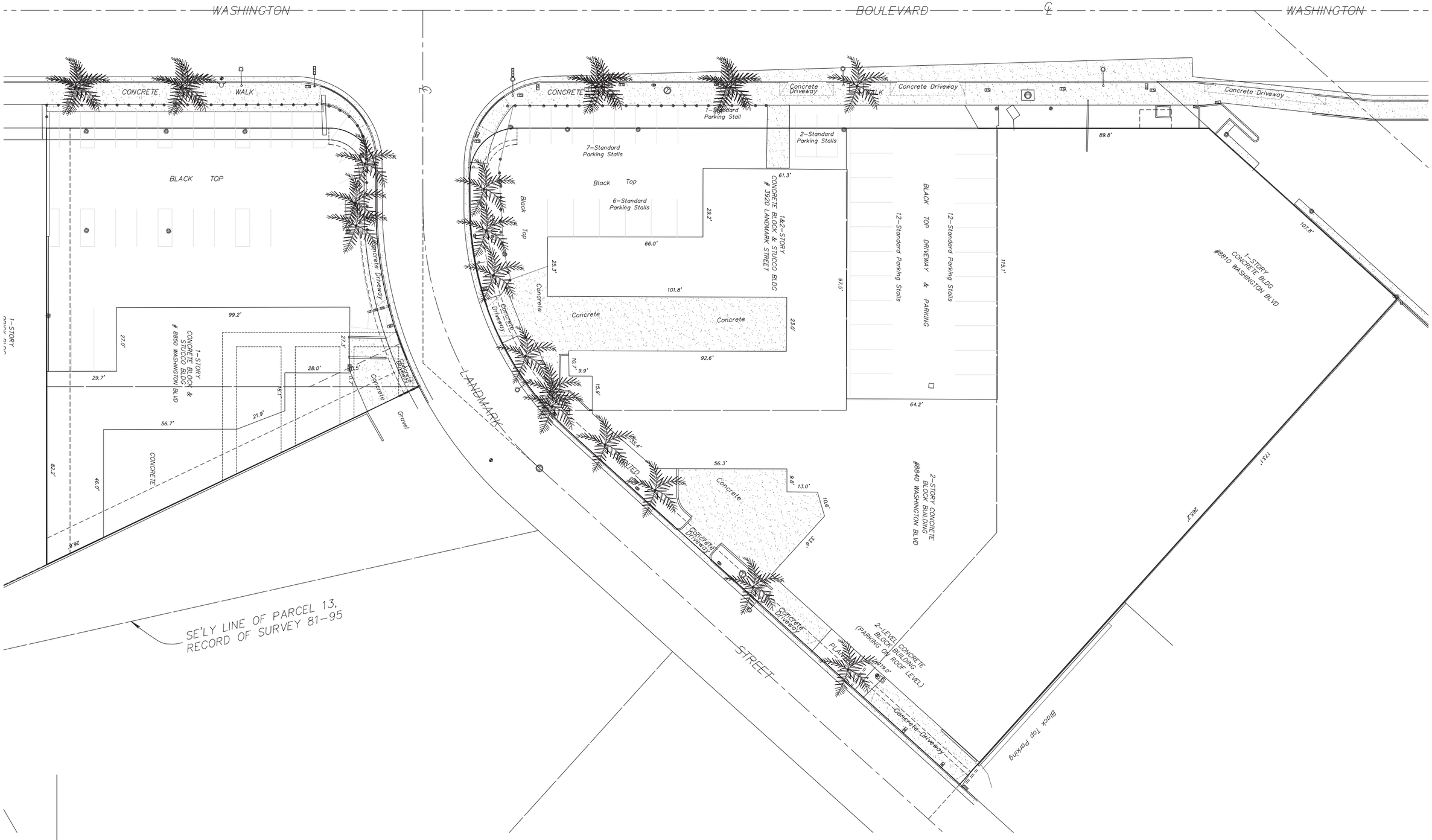


FIXTURE TYPE: F14
IN-GRADE UPLIGHT (METAL HALIDE)

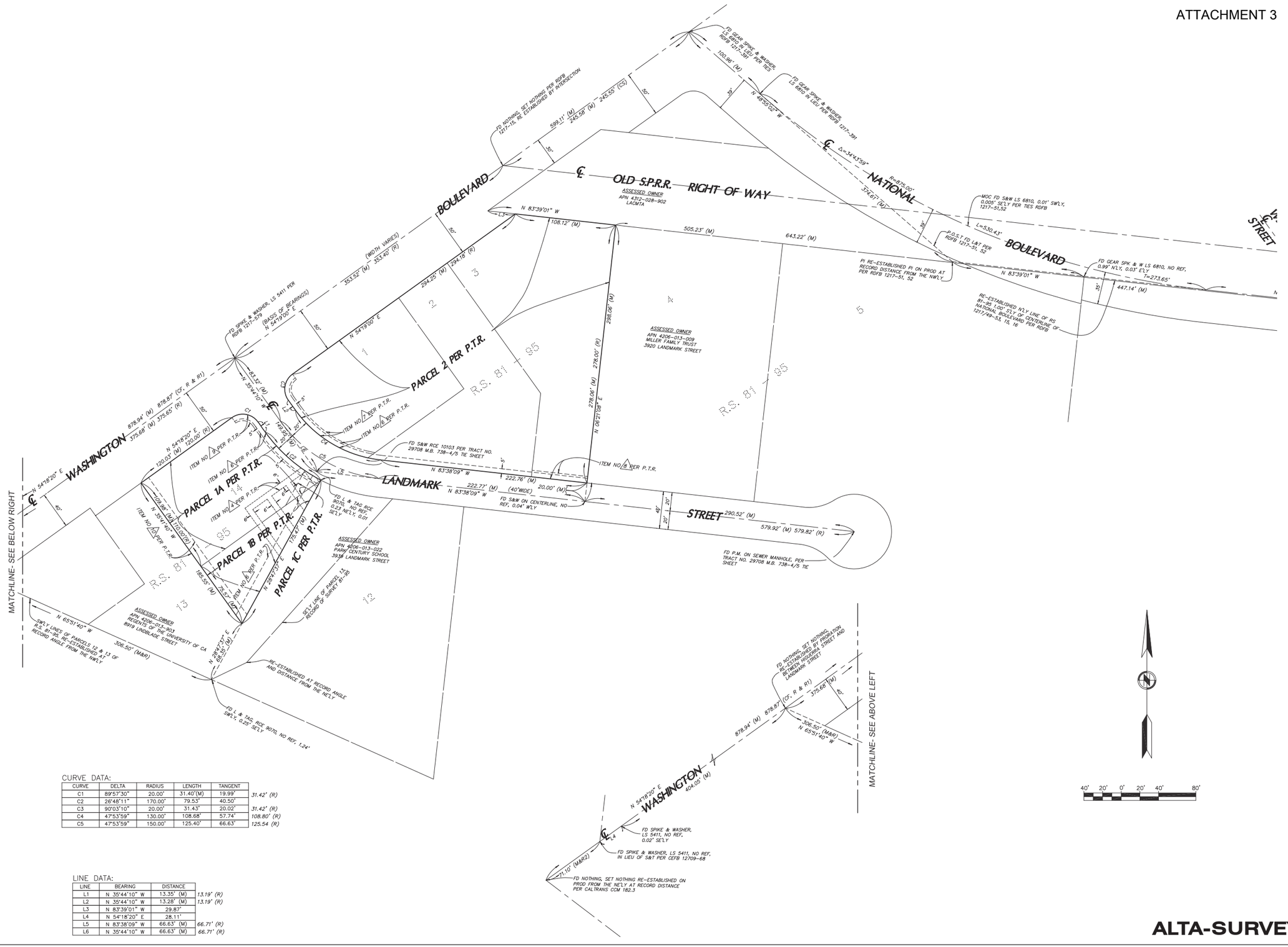


12

CIVIL ENGINEERING


WASHINGTON
BOULEVARD
WASHINGTON
CONCRETE
WALK
BLACK TOP
Concrete Driveway
1-STORY CONCRETE BLOCK & STUCCO BLDG # 8850 WASHINGTON BLVD
99.2'
27.0'
27.3'
29.7'
28.0'
21.5'
19.1'
21.9'
56.7'
82.2'
46.0'
26.9'
CONCRETE
Concrete
Gravel
1-STORY CONCRETE BLOCK & STUCCO BLDG
LANDMARK
STREET
CONCRETE
Concrete Driveway
1-Standard Parking Stall
2-Standard Parking Stalls
7-Standard Parking Stalls
Black Top
6-Standard Parking Stalls
1&2-STORY CONCRETE BLOCK & STUCCO BLDG # 3920 LANDMARK STREET
61.3'
29.2'
66.0'
25.3'
101.8'
97.5'
Concrete
23.0'
92.6'
10.7'
9.9'
15.9'
64.2'
12-Standard Parking Stalls
BLACK TOP DRIVEWAY & PARKING
115.1'
89.8'
107.8'
1-STORY CONCRETE BLDG #8810 WASHINGTON BLVD
173.1'
262.1'
56.3'
9.8'
13.0'
10.6'
9.1'
CONTOURED
2-STORY CONCRETE BLOCK BUILDING #8840 WASHINGTON BLVD
2-LEVEL CONCRETE BLOCK BUILDING (PARKING ON ROOF LEVEL)
FLAT
Concrete Driveway
Block Top Parking
SE'LY LINE OF PARCEL 13, RECORD OF SURVEY 81-95

SURVEY

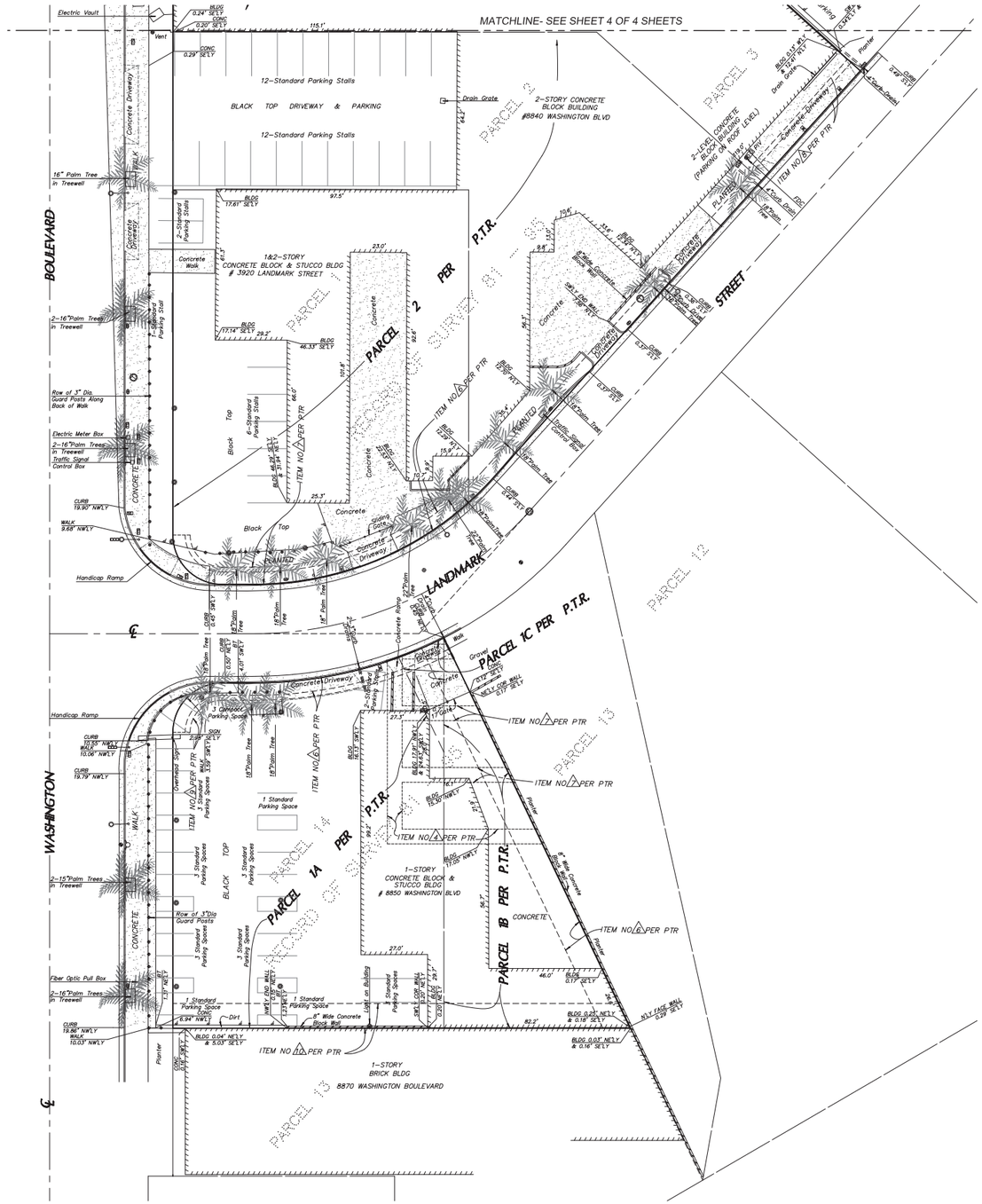


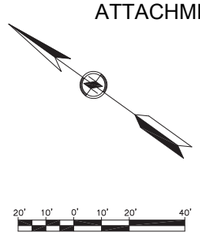
CURVE DATA:

CURVE	DELTA	RADIUS	LENGTH	TANGENT	
C1	89°57'30"	20.00'	31.40'(M)	19.99'	31.42' (R)
C2	26°48'11"	170.00'	79.53'	40.50'	
C3	90°03'10"	20.00'	31.43'	20.02'	31.42' (R)
C4	47°53'59"	130.00'	108.68'	57.74'	108.80' (R)
C5	47°53'59"	150.00'	125.40'	66.63'	125.54 (R)

LINE DATA:

LINE	BEARING	DISTANCE	
L1	N 35°44'10" W	13.35' (M)	13.19' (R)
L2	N 35°44'10" W	13.28' (M)	13.19' (R)
L3	N 83°39'01" W	29.87'	
L4	N 54°18'20" E	28.11'	
L5	N 83°38'09" W	66.63' (M)	66.71' (R)
L6	N 35°44'10" W	66.63' (M)	66.71' (R)



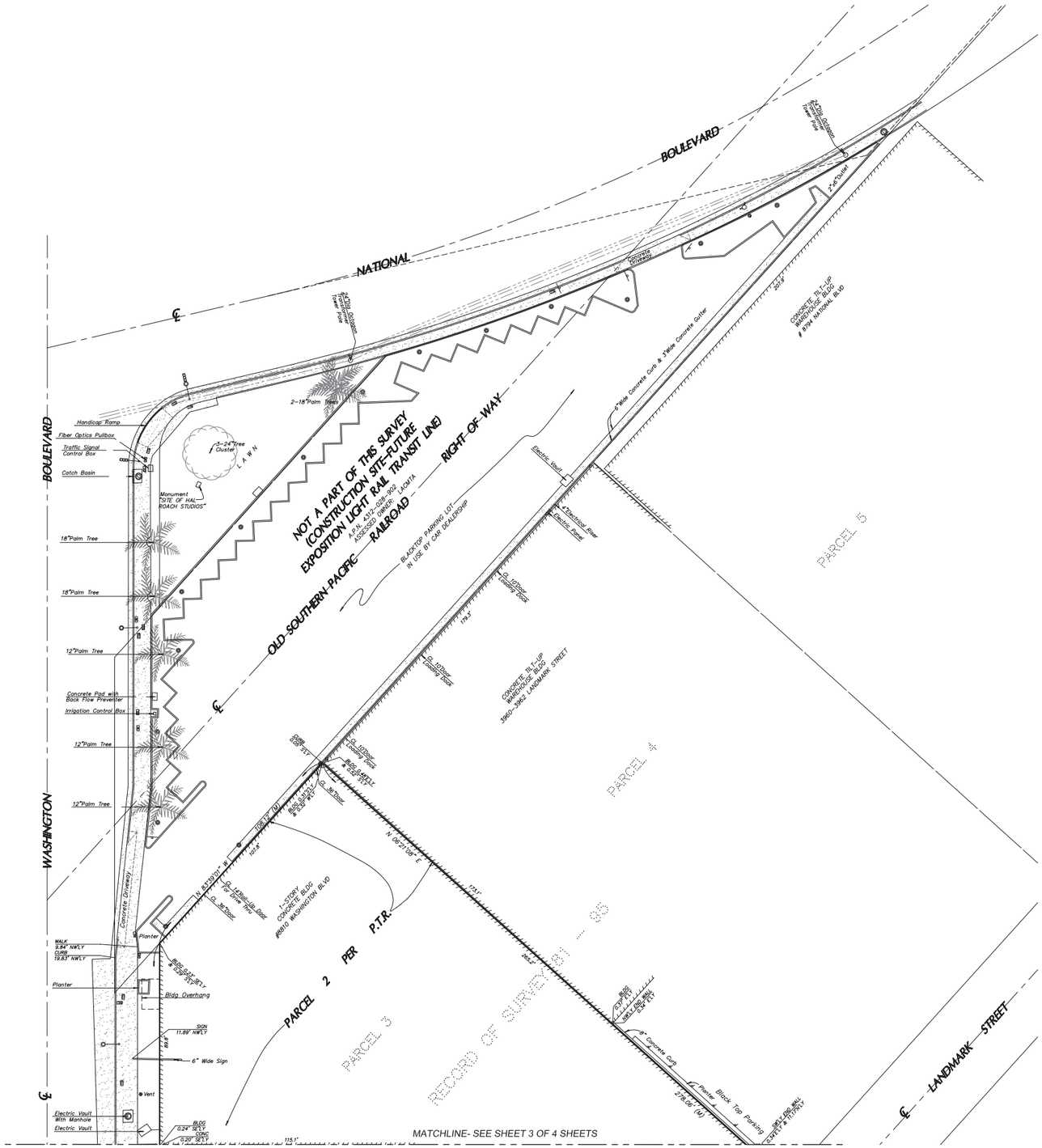


ABBREVIATIONS

AC	ASPHALT
BT	BLACK TOP
BLDG	BUILDING
BC	BUILDING CORNER
BW	BACK OF WALK
CB	CATCH BASIN
CL	CENTERLINE
CONC	CONCRETE
DG	DRAIN GRATE
EC	EDGE OF CONCRETE
EG	EDGE OF GUTTER
EW	EDGE OF WALK
GB	GRADE BREAK
TC	TOP OF CURB
TG	TOP OF GRATE

LEGEND:

- AIR VALVE
- CURB DRAIN
- FIRE HYDRANT
- FLOOD LIGHT
- GAS METER
- GUARD POST
- GAS VALVE
- STORM DRAIN MAN HOLE
- ELECTRICAL MAN HOLE
- SEWER MAN HOLE
- TELEPHONE MAN HOLE
- TREE
- STREET LIGHT PULL BOX
- TRAFFIC SIGNAL PULL BOX
- PARKING METER
- POWER POLE
- PALM TREE
- POST INDICATOR VALVE
- ROOF DRAIN
- STREET LIGHT
- TRAFFIC SIGNAL
- WATER METER
- WATER VALVE
- SIGN
- STREET LIGHT W/ TRAFFIC SIGNAL
- IRRIGATION CONTROL VALVE
- BLACKTOP
- BUILDING LINE
- CHAINLINK FENCE
- WOOD FENCE
- WALL





ABBREVIATIONS

AC	ASPHALT
BT	BLACK TOP
BLDG	BUILDING
BC	BUILDING CORNER
BW	BACK OF WALK
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LEGEND:

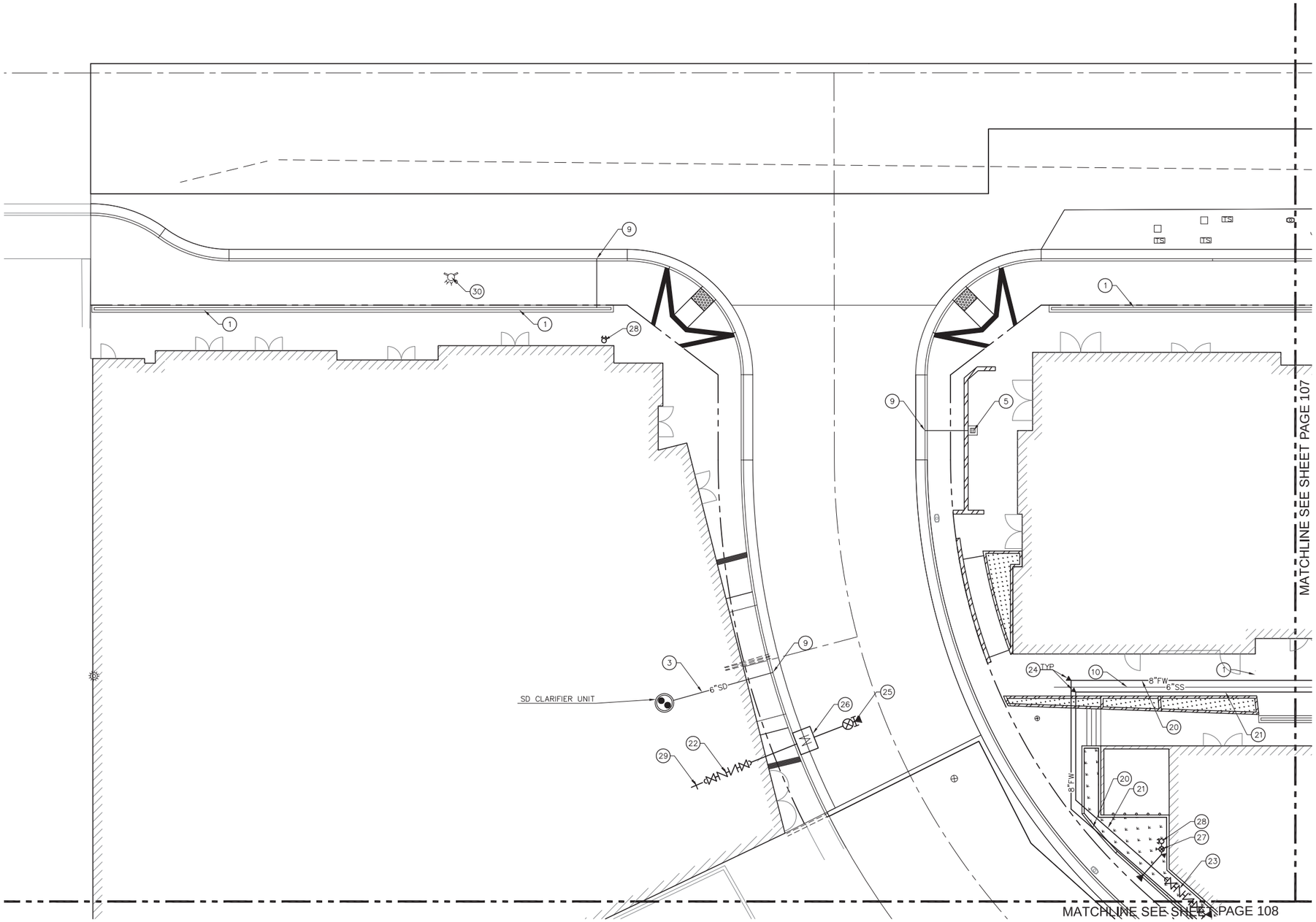
- AIR VALVE
- CURB DRAIN
- FIRE HYDRANT
- FLOOD LIGHT
- GAS METER
- GUARD POST
- GAS VALVE
- STORM DRAIN MAN HOLE
- ELECTRICAL MAN HOLE
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- TREE
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- POWER POLE
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- POST INDICATOR VALVE
- ROOF DRAIN
- STREET LIGHT
- TRAFFIC SIGNAL
- WATER METER
- WATER VALVE
- SIGN
- STREET LIGHT W/ TRAFFIC SIGNAL
- IRRIGATION CONTROL VALVE
- BLACKTOP
- BUILDING LINE
- CHAINLINK FENCE
- WOOD FENCE
- WALL

INFRASTRUCTURE

Based upon the proposed development as described in the Comprehensive Plan, the site development will not require major upgrades to infrastructure such as water, sewer, or gas. Some utility relocation as well as various offsite streetscape improvements shall be required with Site development.
A Community Facilities District (CFD) is one financial tool available to commercial property owners within the TOD District to help fund public improvements and services through private property assessment and bond finance. Required off-site improvements for Platform Comprehensive Plan may be funded through a CFD if commercial property owners agree. The kinds of improvement that may be funded on a pro rata basis include:

- New Infrastructure
- Utility Relocations
- Streetscape Improvements
- On-going maintenance

A CFD can ensure timely completion of all necessary pubic improvements. Consistent with the CFD provisions in the City's Municipal Code (Section 15.12.035), if established, the CFD funding for improvements may be based upon a pro rata assessment for each parcel within the District.



CONSTRUCTION NOTES:

STORM DRAIN:

1. TRENCH DRAIN.
2. FRENCH DRAIN.
3. SDR 35 STORM DRAIN PIPE.
4. NOT USED.
5. 24"X24" CATCH BASIN.
6. STORM DRAIN CLEANOUT.
7. ECORAIN RETENTION TANK.
8. STORM DRAIN MANHOLE.
9. CURB DRAIN.

SANITARY SEWER:

10. 6"ø ABS SANITARY SEWER PIPE.
11. SANITARY SEWER MANHOLE.
12. SANITARY SEWER CLEANOUT.
13. CONNECT TO BUILDING STUB-OUT.

WATER:

20. 8"ø C900 FIRE WATER PIPE.
21. 4"ø C900 DOMESTIC WATER PIPE.
22. 8"ø REDUCED PRESSURE PRINCIPLE DETECTOR ASSEMBLY.
23. 4"ø REDUCED PRESSURE PRINCIPLE BACKFLOW ASSEMBLY.
24. THRUST BLOCK.
25. CONNECT TO OFF-SITE WATER MAIN LINE.
26. WATER METER.
27. POST INDICATOR VALVE.
28. FIRE DEPARTMENT CONNECTION.
29. CONNECT TO BUILDING STUB-OUT.
30. PROPOSED PUBLIC FIRE HYDRANT.

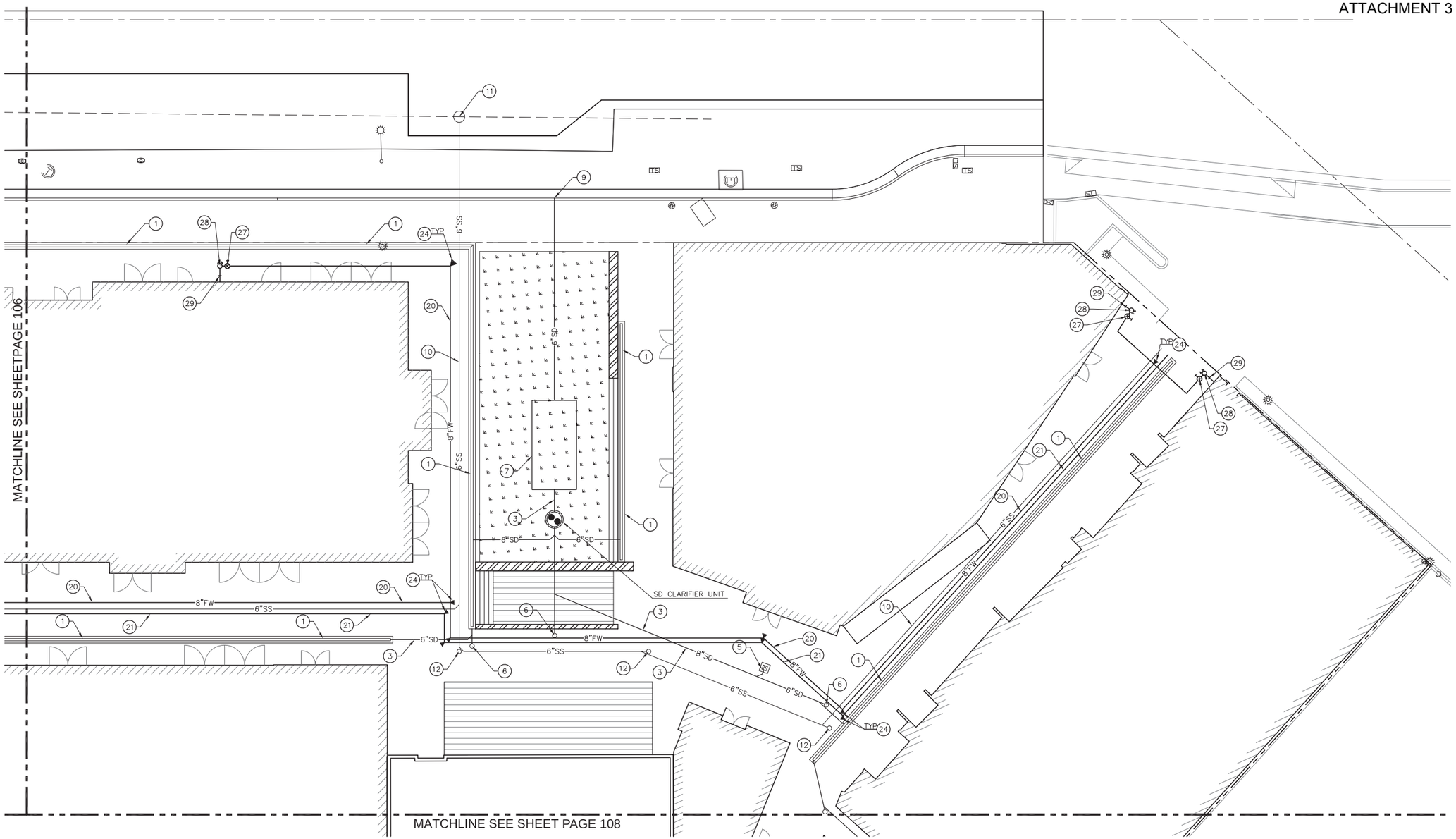
10 5 0 10 20

SHEET NOTES:

1. FOR GENERAL NOTES, LEGEND AND ABBREVIATIONS, SEE SHEET C-1.0.
2. SEE ARCHITECTURAL DRAWINGS FOR OTHER SITE DIMENSIONS NOT SHOWN ON THIS DRAWING.
3. FOR PAVEMENT MARKINGS AND STRIPING, ARCHITECTURAL CONCRETE PAVEMENT AND/OR DECORATIVE PAVEMENT, RAMP WITH GUARDRAILS, PLANTER AREA SEE ARCHITECTURAL DRAWINGS. FOR IRRIGATION FEATURES, SEE IRRIGATION DRAWINGS.
4. REFER TO ARCHITECTURAL DRAWINGS FOR PROPOSED SITE FURNITURES.

FOR REFERENCE ONLY.
Subject to final review
and approval by the
City Engineer.

UTILITY PLAN



CONSTRUCTION NOTES:

STORM DRAIN:

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3. SDR 35 STORM DRAIN PIPE.
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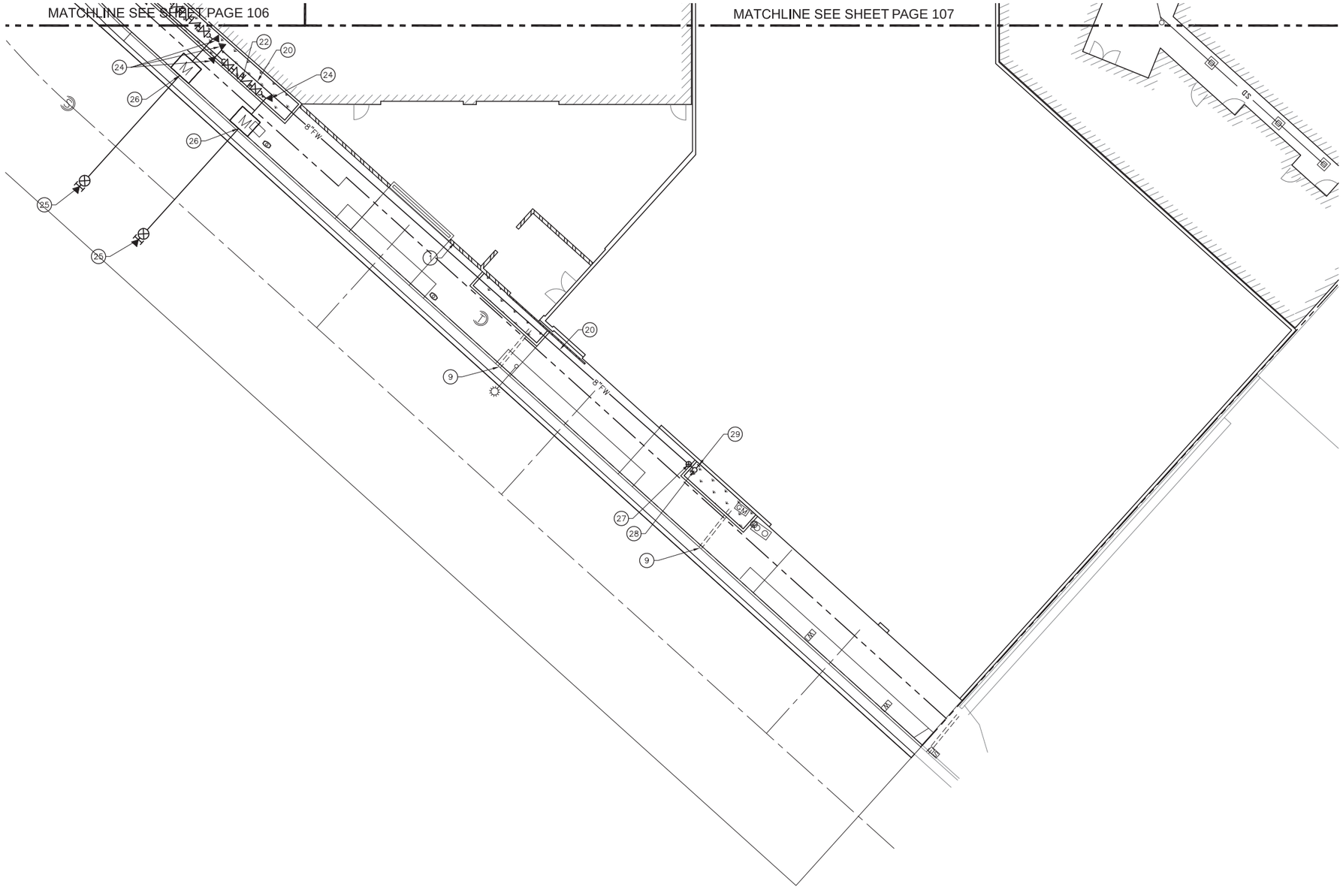
WATER:

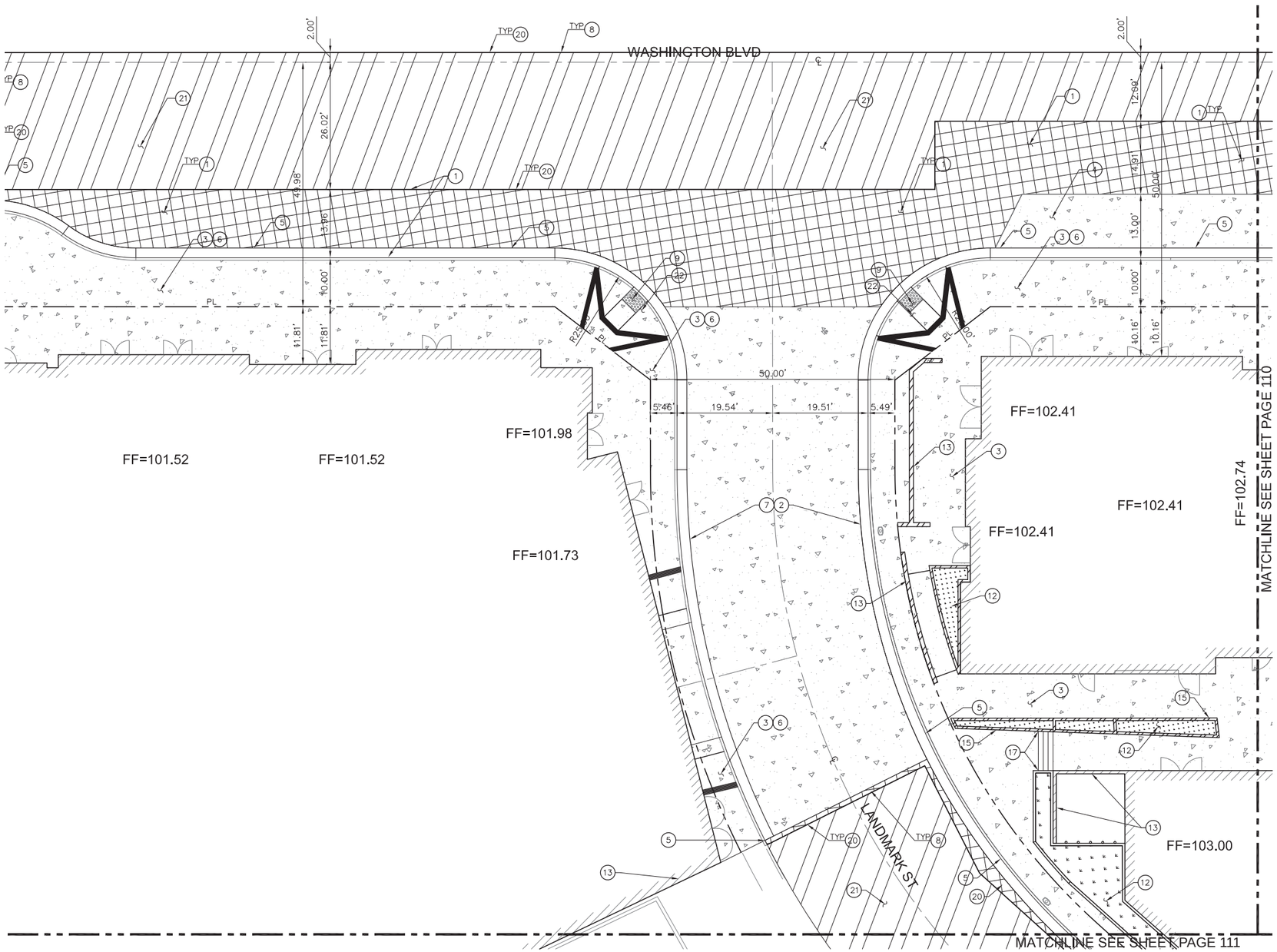
20. 8"ø C900 FIRE WATER PIPE.
21. 4"ø C900 DOMESTIC WATER PIPE.
22. 8"ø REDUCED PRESSURE PRINCIPLE DETECTOR ASSEMBLY.
23. 4"ø REDUCED PRESSURE PRINCIPLE BACKFLOW ASSEMBLY.
24. THRUST BLOCK.
25. CONNECT TO OFF-SITE WATER MAIN LINE.
26. WATER METER.
27. POST INDICATOR VALVE.
28. FIRE DEPARTMENT CONNECTION.
29. CONNECT TO BUILDING STUB-OUT.
30. PROPOSED PUBLIC FIRE HYDRANT.

10 5 0 10 20

FOR REFERENCE ONLY.
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UTILITY PLAN


MATCHLINE SEE SHEET PAGE 106
MATCHLINE SEE SHEET PAGE 107
6"FW
6"FW
6"FW



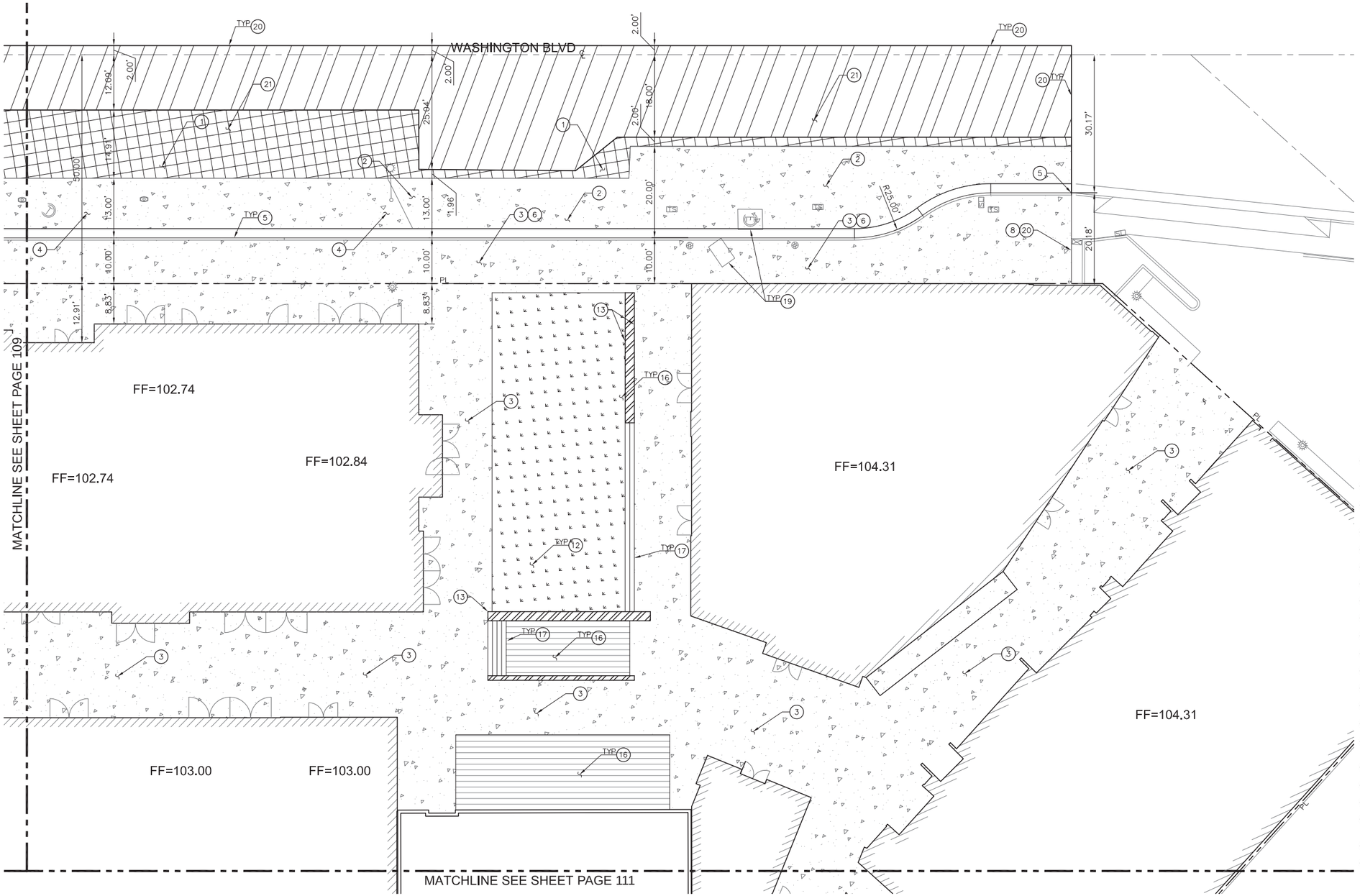
CONSTRUCTION NOTES:

1. CONSTRUCT NEW 6" THICK CLASS C2 AC SURFACING OVER 6" THICK CRUSHED MISCELLANEOUS BASE, (CMB).
2. 6" CONCRETE PAVEMENT OVER 4" OVER CRUSHED MISCELLANEOUS BASE (CMB).
3. 4" CONCRETE SIDEWALK PAVEMENT OVER 4" OVER CRUSHED MISCELLANEOUS BASE (CMB).
4. CONCRETE BUS PAD PER APWA STD. PLAN 131–2, W=13', L=140' MIN.
5. CURB AND GUTTER PER APWA STD. PLAN 120–2, A2–8(200), W=24".
6. INSTALL CURB AND SIDEWALK JOINTS PER APWA STD. PLAN 112–2.
7. JOINT FOR CONCRETE PAVEMENT PER APWA STD. PLAN 134–2.
8. JOINT TO EXISTING PAVEMENT PER DETAIL 10 ON SHEET C–4.0.
9. 36" WIDE DETECTABLE WARNING TRUNCATED DOMES.
10. PCC COMMERCIAL DRIVEWAY PER APWA STD. PLAN 110–2, TYPE A, T=6".
11. PCC COMMERCIAL DRIVEWAY PER APWA STD. PLAN 110–2, TYPE C, T=6".
12. PLANTER AREA PER LANDSCAPE DRAWINGS.
13. WALL PER ARCHITECTURAL/LANDSCAPE DRAWINGS.
14. CONCRETE SEATWALL PER ARCHITECTURAL/LANDSCAPE DRAWINGS.
15. RAISED CONCRETE PLANTER PER ARCHITECTURAL/LANDSCAPE DRAWINGS.
16. WOOD DECKING/DECORATIVE PAVEMENT PER ARCHITECTURAL/LANDSCAPE DRAWINGS.
17. STAIRS PER ARCHITECTURAL/LANDSCAPE DRAWINGS.
18. WATER FEATURE PER ARCHITECTURAL/LANDSCAPE DRAWINGS.
19. RAISE EX UTILITY BOX, CO, ETC. TO NEW DESIGN ELEVATION.
20. SAWCUT AND REMOVE EXISTING PAVEMENT OR EXISTING CONCRETE CURB WHERE REQUIRED. SAWCUT LINE TO BE A MINIMUM CUT DEPTH OF 1 ½".
21. COLDPLANE TOP 2" OF AC PAVEMENT AND OVERLAY 2" OF ASPHALT PAVEMENT.
22. INSTALL CURB RAMP PER APWA STD. PLAN 111–4, CASE A TYPE 3.

10 5 0 10 20

FOR REFERENCE ONLY.
Subject to final review and approval by the City Engineer.

SITE CONTROL PLAN



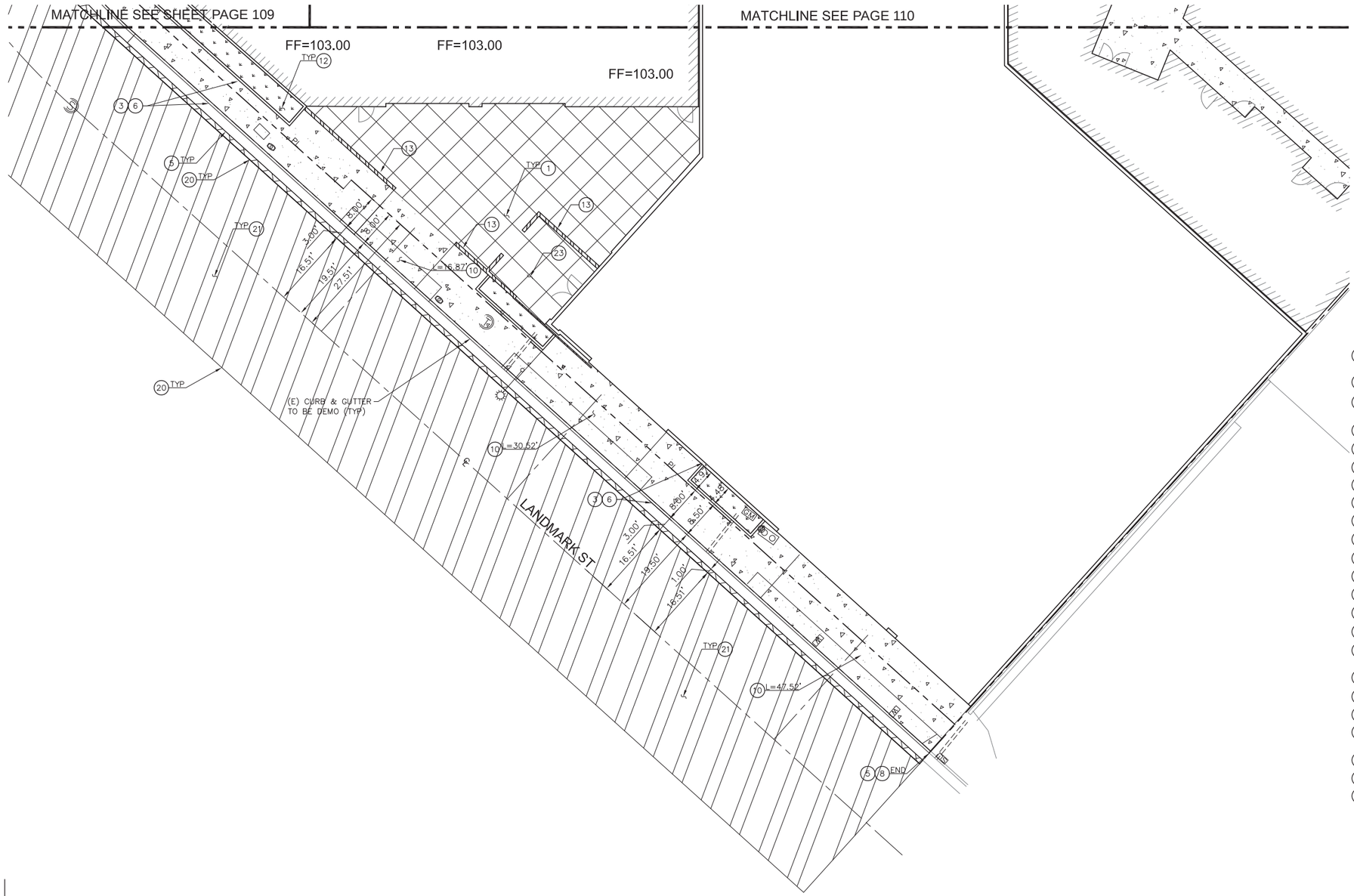
CONSTRUCTION NOTES:

1. CONSTRUCT NEW 6" THICK CLASS C2 AC SURFACING OVER 6" THICK CRUSHED AGGREGATE BASE, (CAB).
2. 6" CONCRETE PAVEMENT OVER 4" OVER CRUSHED AGGREGATE BASE (CAB).
3. 4" CONCRETE SIDEWALK PAVEMENT OVER 4" OVER CRUSHED AGGREGATE BASE (CAB).
4. CONCRETE BUS PAD PER APWA STD. PLAN 131–2, W=13', L=140' MIN.
5. CURB AND GUTTER PER APWA STD. PLAN 120–2, A2–8(200), W=24".
6. INSTALL CURB AND SIDEWALK JOINTS PER APWA STD. PLAN 112–2.
7. JOINT FOR CONCRETE PAVEMENT PER APWA STD. PLAN 134–2.
8. JOINT TO EXISTING PAVEMENT PER DETAIL 10 ON SHEET C–4.0.
9. 36" WIDE DETECTABLE WARNING TRUNCATED DOMES.
10. PCC COMMERCIAL DRIVEWAY PER APWA STD. PLAN 110–2, TYPE A, T=6".
11. PCC COMMERCIAL DRIVEWAY PER APWA STD. PLAN 110–2, TYPE C, T=6".
12. PLANTER AREA PER LANDSCAPE DRAWINGS.
13. WALL PER ARCHITECTURAL/LANDSCAPE DRAWINGS.
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21. COLDPLANE AND OVERLAY EXISTING TOP 2" OF AC PAVEMENT.
22. INSTALL CURB RAMP PER APWA STD. PLAN 111–3.

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SITE CONTROL PLAN



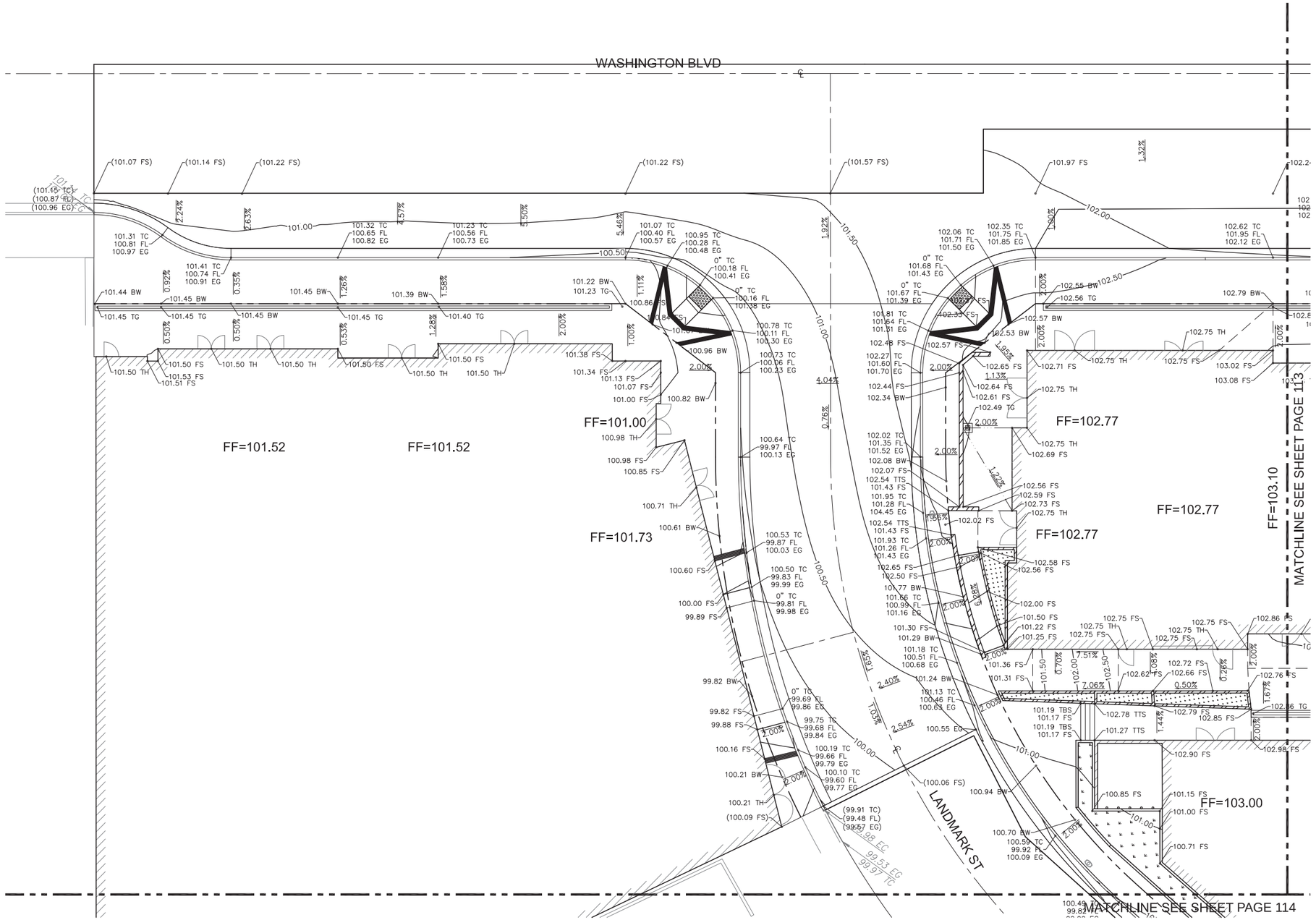
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21. COLDPLANE AND OVERLAY EXISTING TOP 2" OF AC PAVEMENT.
22. INSTALL CURB RAMP PER APWA STD. PLAN 111–3.
23. TRASH ENCLOSURE AREA PER ARCHITECTURAL DRAWINGS.

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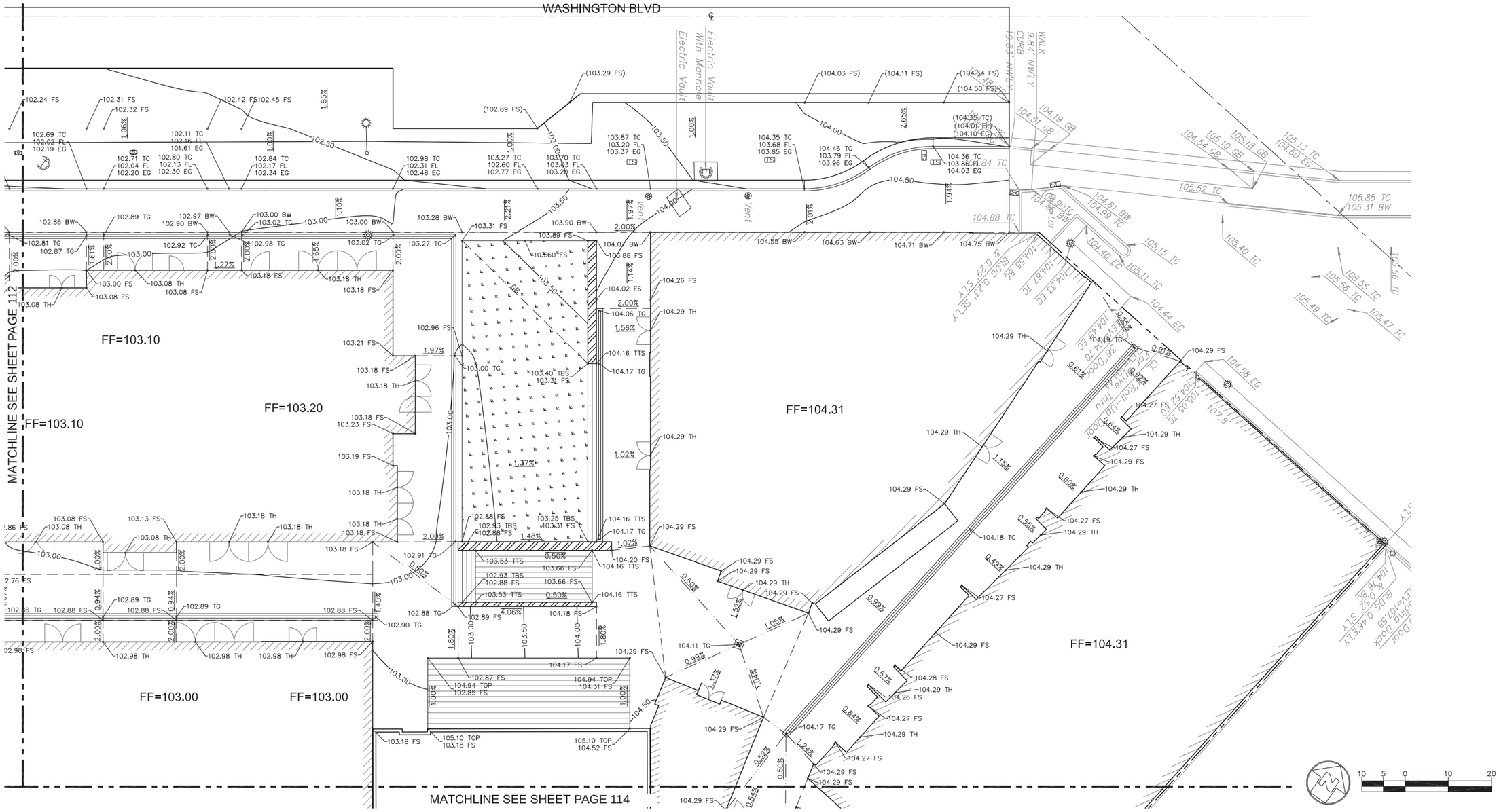
SITE CONTROL PLAN



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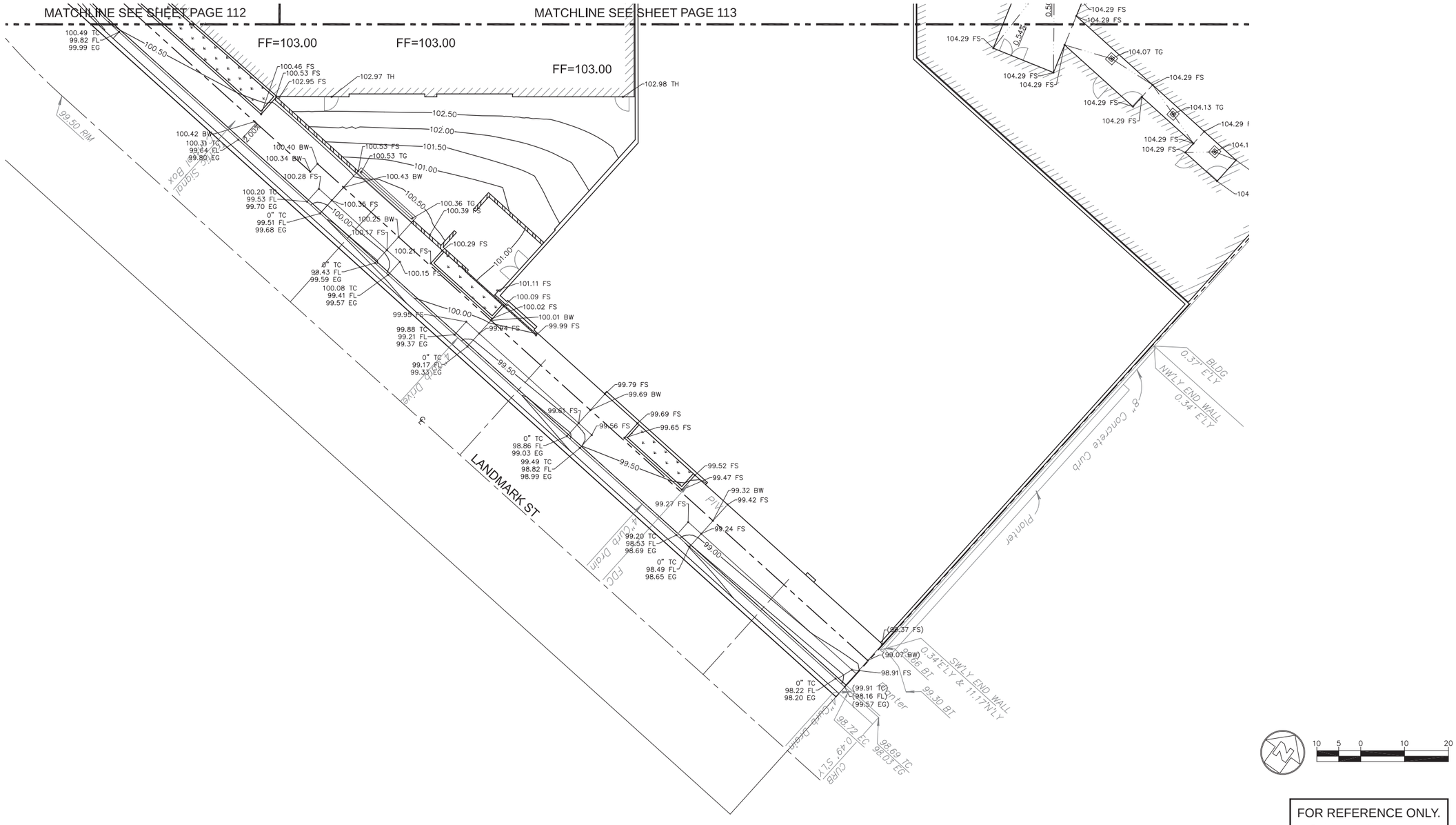
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GRADING PLAN



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FOR REFERENCE ONLY.
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GRADING PLAN

13

DOCUMENTS UNDER SEPARATE COVER

DOCUMENTS UNDER SEPARATE COVER

DOCUMENT	REPORT DATED	CONSULTANT
GEOTECHNICAL REPORT	11/05/2010	Feffer Geological Consulting
TRAFFIC STUDY	07/01/2011	Raju Associates, Inc.
GREENHOUSE GAS ASSESSMENT	04/26/2012	RBF Consulting
PHASE I ENVIRONMENTAL ASSESSMENT	11/02/2010	AECOM

Surveyor

Mollenhauer Group
316 W 2nd Street, Fifth Floor
Los Angeles, CA 90012
Contact: Bill Nailing
bnailling@mollenhauergroup.com
Tel. (213) 624-2661
Fax. (213) 614-1863

Geotechnical Engineer

Feffer Geotechnical Consulting
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Los Angeles, CA 90025
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josh@feffergeo.com
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Fax. (310) 826-0182

Traffic Study

Raju Associates Inc.
505 E. Colorado Blvd, Suite 202
Pasadena, CA 91101
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srinath.raju@rajuassociates.com
Tel. (626) 792-2700
Fax. (626) 792-2772

Greenhouse Gas Assessment

RBF Consulting
14725 Alton Parkway
Irvine, CA 92618
Contact: Eddie Torres, Kelly Chiene
Tel. (949) 472-3505

Environmental Consultant / Phase I and II Report

Citadel Environmental Services
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Glendale, CA 91201
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ncasarez@citadelenvironmental.com
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Fax. (818) 246-3145

AECOM
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Orange, CA 92868
Tel. (714) 835-4447
Fax. (714) 953-6989

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joseph@runyongroup.com
Tel. (213) 243-5530

Architect

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Culver City, CA 90232
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bjorn@abramsonteiger.com
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Fax. (310) 838-8332

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d.green@gardinerusa.com
Tel. (310) 598-1944
Fax. (310) 285-9833

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800 Wilshire Blvd, Ste. 200
Los Angeles, CA 90017
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rwilkerson@nyase.com
Tel. (213) 362-0707
Fax. (213) 688-3099

MEP Engineers

ARC Engineering
15260 Ventura Blvd, Ste. 1520
Sherman Oaks, CA 91403
Contact: Hisham Nicholas Barakat
hbarakat@arceng.net
Tel. (818) 508-6300 Ext. 202
Fax. (818) 508-7050

Landscape Design

Artifex^{10}
Contact: Eric S. Lennox
eric@artifex10.com
Tel. (480) 297-9464

Lighting Design

Sean O'Connot Lighting
8820 Wilshire Blvd, Ste. 320
Beverly Hills, CA 90211
Contact: sean o'connor
sean@seanoconnorlighting.com
Tel. (310) 659-5900
Fax. (310) 659-5915

Civil Engineer

VCA Engineers Inc
3951 Medford Street
Los Angeles, CA 90063
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mauricio.castro@vcaengineers-inc.com
Tel. (323) 729-6098
Fax. (323) 729-6043

City of Culver City, California

Planning Commission Agenda Item Report

Meeting Date: October 4, 2012	Item Number: PH-1
AGENDA ITEM: (CONTINUED ITEM FROM SEPTEMBER 12, 2012) Consideration of Zoning Code Map Amendment (P-2012020) establishing Planned Development Zone No.10 and Comprehensive Plan (P2012018) to allow a commercial development consisting of approximately 41,735 square feet of retail and restaurant uses and 38,732 square feet of office uses located at 8810-8850 Washington Boulevard and 3920 Landmark Street.	
Contact Person/Dept.: Susan Yun, Senior Planner	Phone Number: (310) 253-5755
Public Hearing: [X] Action Item: [] Attachments: [X]	
Public Notification: On August 21, 2012, a notice (approximately 1,900 recipients) was mailed to all the property owners and occupants beyond a 500-foot radius of the site, posted on the site and emailed to the Master Notification List.	
Planning Approval: Thomas Gorham, Planning Manager	Department Approval: Sol Blumenfeld, Community Development Director

CONTINUATION OF SEPTEMBER 12, 2012, AGENDA ITEM NO. PH-1:

This item was presented to the Planning Commission as a public hearing at the Commission's September 12, 2012.

RECOMMENDATION:

That the Planning Commission:

1. Adopt a Mitigated Negative Declaration (MND) based on the Initial Study finding that the project, with mitigation measures incorporated, will not have a significant adverse impact on the environment; and

2. Recommend Approval to the City Council of Zoning Code Map Amendment, ZCMA P-2012020, and Comprehensive Plan, CP P-2012018, subject to the Conditions of Approval as stated in Resolution No. 2012-P011 (Attachment No. 1).

PROCEDURES:

1. Chair calls on staff for a staff report and Commission poses questions to staff as desired.
2. Chair opens the public hearing, providing the applicant the first opportunity to speak, followed by the general public.

3. Chair seeks a motion to close the public hearing after all testimony has been presented.
4. Commission discusses the matter and arrives at its decision.

BACKGROUND / DISCUSSION:

At its September 12, 2012 meeting, after considering the staff report, the application materials and applicant presentation, the Commission adopted a motion (5-0) to continue the item to the October 4, 2012, meeting, requesting various clarifications, revisions and additional information regarding the project. Please refer to the September 12th Agenda Item PH-1 packet for a full description, analysis, and attachments regarding this project.

Comprehensive Plan

The Commission directed that the Comprehensive Plan be revised to incorporate the alternate design to Building A and Building E, in its entirety as the single project proposal rather than represent it as an option.

The alternate design option was proposed after the full application package was received. The developer included this alternate design option based on feedback from potential tenants and a desire to provide a direct connection from Washington Boulevard to the paseo behind Building A and to create a more dynamic restaurant space on Building E by relocating it to the third floor. This was the preferred design option by the applicant/owner. The Commission felt the Comprehensive Plan should reflect the preferred design option and the document was revised accordingly.

All relevant pages of the Comprehensive Plan including floor plans, elevations, tables and various diagrams were revised and/or added into the document to reflect the previously proposed alternative design option to Building A and Building E. In addition, all project summary tables, diagrams and illustrations were revised to accurately reflect proposed project building square footages and parking calculations (Attachment No. 2).

The language and text of the Comprehensive Plan was also revised to contain more declarative statements to avoid any ambiguities related to City requirements versus optional provisions.

Parking

The Commission requested clarifications in regards to how the projects required parking was calculated.

Numerical Parking Requirements: Parking for the project site is provided at a ratio of 1 stall per 250 square feet of retail and restaurant floor area consistent with the Zoning Code parking requirements for shopping centers and 1 stall per 350 square feet of office floor area consistent with the Zoning Code parking requirements for office uses. Restaurant space over 25% of the combined retail and restaurant floor area is required to be parked at a ratio of 1 stall per 100 square feet of floor area, consistent with requirements of the Parking Ordinance.

The Zoning Code provides that the first 250 square feet of outdoor dining is allowed without requiring parking. The Platform project proposes that this credit of 250 square feet be increased to 500 square feet. This results in 6 additional parking spaces required when applying a parking credit for first 250 square foot of outdoor dining area as opposed to applying a parking credit to the first 500 square feet of outdoor dining area. The parking requirements described above are summarized in the following table:

Land Use	Parking Factor
Retail (Shopping center)	1 stall per 250 sf
Restaurant (Up to 25% of the combined retail and restaurant floor area.)	1 stall per 250sf
Restaurant (Over 25% of the combined retail and restaurant floor area.)	1 stall per 100 sf
Office	1 stall per 350 sf
Outdoor Dining Areas (Area in excess of 500 square feet per restaurant space.)	1 stall per 250 sf

The project proposes a total of 27,057 square feet of retail spaces, 14,688 square feet of restaurant spaces and 38,732 square feet of office spaces. As mentioned above, restaurant space over 25% of the combined retail and restaurant floor area is required to be parked at a ratio of 1 stall per 100 square feet of floor area. The Project Area Summary Table on Page 3 of the revised Comprehensive Plan provides detailed building square footage breakdown of the proposed uses for each of the buildings proposed.

Restaurant Parking

Pursuant to Commission direction, the maximum percentage of restaurant space is 35% of the combined retail and restaurant floor area (See Permitted Uses, Page 14 of the Comprehensive Plan). The 14,688 square feet of proposed restaurant space represents 35% of the combined retail and restaurant floor area. The project proposes an additional 10% or 4,252 square feet of restaurant space over the 25% or 10,436 square feet maximum. As a result, 4,252 square feet of total restaurant space is parked at the required parking ratio of 1 stall per 100 square feet of floor area.

Outdoor Dining Parking

The project proposes a total of 5,365 square feet of outdoor dining. The proposed outdoor dining area in excess of 500 square feet per restaurant space totals 2,050 square feet. 8 parking spaces would be required for this outdoor dining at the 1 to 250 ratio. The project provides parking for the 2,050 square feet of outdoor dining in excess of 500 square feet per restaurant space or 8 spaces as shown in the required parking table on Page 12 of the Comprehensive Plan. [1]

The increase of parking credit to the first 500 square feet of outdoor dining rather than the first 250 square feet results in only a 2% or 6 space reduction in what the Zoning Code would otherwise require and is justified by the proximity of the project to transit as part of the Transit Oriented Development (TOD) district.[2] There will not be a significant parking impact as result of applying the parking credit due to the amount of parking that will be provided on-site and the nature of the expected population the project will serve. Many users of the outdoor dining area will generally include local office workers from the site and employees and residents from the adjacent Hayden Tract and other TODs planned nearby and will not likely generate additional auto trips and parking demand. It is expected that many site users will be arriving by alternative modes of travel such as walking, bicycling, or by taking the bus or train to the site. Further, the project does not take any parking credit or discount as could be allowed as a TOD project.

Based on the proposed uses (including the outdoor dining area in excess of 500 square feet), building square footage and parking ratios described above, the project requires a total of 312 parking spaces. The quantity of parking required based the land use and parking ratio is summarized in the table below:

Land Use	Area s.f.	Parking Ratio	Total Parking Stalls
Retail	27,057	1:250 sf	108
Restaurant	14,688*****	1:250 sf	85
Outdoor Dining Areas (Area in excess of 500 square feet per restaurant space.)	2,050	1:250 sf	8
Office	38,732	1:350 sf	111
		Total	**312**

*4,252 square feet of this total was calculated at 1 stall per 100 square feet of restaurant space.

Vehicle Parking Plan: Parking for the project is provided in two separate above ground structures. The newly built parking structure on the corner of Landmark Street and Washington Boulevard (Building B) contains 219 parking stalls across five levels of covered parking and a roof level. The entire structure is accessed through an automatic entry system off of Landmark Street that will be activated by either a ticket or a key card system. This structure is intended for people who are patronizing the shops and restaurants at Platform. Office users and store employees are prohibited from parking in the lower three levels, leaving the lower these prime spaces to customers. There have been no changes to this structure with the revised plans.

The second parking garage is an existing structure that is to be rehabilitated and is located on the north side of Landmark Street (Building D) In the original plan this structure contained 72 parking spaces. The parking plan for Building D has been revised to provide 93 parking stalls by converting the second and third levels to valet parking only. The structure will have ingress and egress off of Landmark Street. There will be 22 self-parking spaces on the first level along with valet parking drop off and pick up. There will be 33 spaces on the second level including 28 in tandem configuration, and 38 spaces on the third level including 36 in tandem configuration that will be utilized for valet parking. This structure will primarily be used by office users and patrons of the restaurant in Building E. A condition of approval has been added requiring the applicant/owner to provide a valet parking and management plan as approved by the Planning Manager and City's Traffic Engineer.

Both parking structures will offer preferred parking for low emission vehicles (e.g. hybrid, alternative fuel and electrical automobiles) and carpool vehicles as required by the California Green Building Code (CGBC). Handicapped accessible spaces are provided per California Building Code (CBC) regulations.

General Land Use Provisions

The project is proposed as a pedestrian oriented development located near the Exposition Light Rail Transit station and within the City's Transit Oriented Development (TOD) area. As such, the Commission wanted more assurances in the land use provisions of Comprehensive Plan to reflect the goals and objectives of a pedestrian friendly and TOD project by limiting the types of uses that can be allowed on the ground floor.

The Permitted Uses section on page 14 of the Comprehensive plan has been revised to permit pedestrian oriented uses including retail, eating and drinking establishments, and artisan businesses on the ground floor. Also, restaurant uses have been limited to no more than 35% of the commercial space to avoid potential oversaturation of restaurant uses over retail uses in this project. The office uses and other non-pedestrian oriented uses (i.e. health and fitness facilities, broadcast studios, indoor support facilities of media production) are not allowed on the ground floor.

Other uses such as personal services (i.e, day spa, hair salon, and nail salon), specialized schools (i.e. culinary school) or banks or financial services are not permitted on the ground floor in tenant spaces fronting Washington Boulevard or the central courtyard space as these frontages are the primary pedestrian oriented areas of the project.

For retail and restaurant uses selling alcohol, an Administrative Use Permit is required. Convenience store use was removed from the permitted use table.

Landscaping

One of the concerns expressed by the Commission was lack of size specificity of the trees preliminary landscape plan, in particular those proposed for the central courtyard area. The original plan showed 6 trees in this area. The applicant has revised the plan to show 3 trees in order to provide a larger scale tree. The trees are proposed to be 72 inch box size which will result in a tree height at planting of approximately 17-20 feet with a canopy spread of approximately 18 feet. Staff has included an condition that requires the courtyard trees to be a minimum 72 inch box size and that the exact location and final species selection be subject to review and approval by the City's Landscape Architect. The remaining trees in the project are the required street trees along Washington Boulevard which will be installed pursuant to the City's TOD District Streetscape Plan which will provide a coordinated plan for public improvements within the TOD area. Streetscape improvements will include new street trees, planters, tree grates, benches, trash receptacles, bicycle racks, decorative pavers, way finding

signage and other street furniture. The developer is required to fund and install all streetscape improvements in front of the project and is required to pro provide a pro rata share of funding for decorative paved crosswalks at Washington and National Boulevards as specified in a TOD District Streetscape Plan.

Sample Materials Board and Exhibits

As requested by the Commission, the applicant has provided an expanded view or perspective of the entire projects' building frontage as viewed from Washington Boulevard in the Comprehensive Plan document. A large exhibit of this perspective will be presented at the Commission meeting. Also, pictures of the building materials have been incorporated into the Comprehensive Plan document. An updated materials sample board reflecting all the materials in the proposed project will also be presented at the Commission meeting.

CONCLUSION:

Based on the analysis contained herein staff believes the findings for a Comprehensive Plan and Zoning Code Map Amendment can be made as outlined in proposed Resolution No. 2012-P011 (Attachment No. 2) and recommends project approval.

ENVIRONMENTAL DETERMINATION:

Pursuant to the California Environmental Quality Act (CEQA) guidelines a Mitigated Negative Declaration (MND) has been prepared; the project has been determined that with mitigation measures incorporated, it will have less than significant impacts on the community.

ALTERNATIVE OPTIONS:

The following alternative actions may be considered by the Planning Commission:

1. Approve the application with the recommended conditions of approval if the application is deemed to meet the required findings.

2. Approve the application with additional or different conditions of approval, if deemed necessary to meet the required findings and mitigate any new project impacts identified at the meeting.

3. Disapprove the application if it does not meet the required findings.

NOTES:

1. As a comparison, staff calculated the difference in the parking required when applying a parking credit for the first 250 square feet of outdoor dining area as opposed to a parking credit for the first 500 square feet of outdoor dining area. The outdoor dining area in excess of the first 250 square feet per restaurant space would total 3,615 square feet. Parking for this at the 1 to 250 ratio would result in the need for 14 parking spaces.

2. Reduced parking is justified by close proximity to the Culver City Expo LRT station and outdoor dining is an important pedestrian related use which should be encourage in TOD's to promote pedestrian activity.

ATTACHMENTS:

1. Draft Resolution No. 2012-P011 (ZCMA P-2012020, CP-P2012018, MND – P-2012019) including Exhibit A, Zone Change Map and Exhibit B, Conditions of Approval.

2. Revised Comprehensive Plans date stamped September 28, 2012.

City of Culver City, California

Planning Commission Agenda Item Report

Meeting Date: September 12, 2012	Item Number: PH-1
AGENDA ITEM: Proposed Zoning Code Map Amendment to establish a Planned Development Zoning District and Comprehensive Plan to allow a commercial development consisting of approximately 41,253 square feet of retail and restaurant uses and 38,120 square feet of office uses located at 8810-8850 Washington Boulevard and 3920 Landmark Street.	
Contact Person/Dept.: Susan Yun, Senior Planner	Phone Number: (310) 253-5755
Public Hearing: [X] Action Item: [] Attachments: [X]	
Public Notification: On August 21, 2012, a notice (approximately 1,900 recipients) was mailed to all the property owners and occupants beyond a 500-foot radius of the site, posted on the site and emailed to the Master Notification List.	
Planning Approval: Thomas Gorham, Planning Manager	Department Approval: Sol Blumenfeld, Community Development Director

RECOMMENDATION:

That the Planning Commission:

1. Adopt a Mitigated Negative Declaration (MND) based on the Initial Study finding that the project, with mitigation measures incorporated, will not have a significant adverse impact on the environment (Attachment No. 5); and

2. Recommend Approval to the City Council of Zoning Code Map Amendment, ZCMA P-2012020, and Comprehensive Plan, CP P-2012018, subject to the Conditions of Approval as stated in Resolution No. 2012-P011 (Attachment No. 4).

PROCEDURES:

1. Chair calls on staff for a staff report and Commission poses questions to staff as desired.

2. Chair opens the public hearing, providing the applicant the first opportunity to speak, followed by the general public.

3. Chair seeks a motion to close the public hearing after all testimony has been presented.

4. Commission discusses the matter and arrives at its decision

BACKGROUND:

Request

The proposed request is to establish a Planned Development (PD) Zone through a Zoning Code Map Amendment (ZCMA) and a Comprehensive Plan (CP) to allow the construction of multi-use commercial development consisting of approximately 41,253 square feet of retail and restaurant uses and 38,120 square feet of office use. There are two above ground parking structures that will provide a total of 291 parking spaces. The project site is located at 8810–8850 Washington Boulevard and 3920 Landmark Street (See Attachment No.1), near the recently completed Exposition Light Rail Transit (Expo LRT) line, Culver City Expo Station and the City's Washington National Transit Oriented Development (TOD.)

Existing Conditions

The project site comprises two properties on the south side of Washington Boulevard split by Landmark Street and totals approximately 2.06 acres. Both properties are currently zoned Industrial General (IG) and have a General Corridor General Plan land use designation and were previously occupied by car dealerships. The smaller of the two properties is located west of Landmark Street and totals .5 acres with 5,817 square feet of existing building area. The larger property located east of Landmark Street totals 1.56 acres with 80,015 square feet of existing building area.

The site topography is flat and contains one to two story structures with two at grade paved surface parking lots at the front of both sites adjacent to Washington Boulevard. The larger site contains a warehouse, service repair bay area, a showroom, office areas, and a three level above ground parking structure. Some of the buildings such as the parking structure, service repair bay building and a portion of the warehouse structure will not be demolished and will be adaptively reused as part of the proposed project. The smaller site contains a building which will be demolished and replaced with a new six level parking structure with the ground floor dedicated to retail uses.

The area around the project site is characterized by light industrial/warehouse, commercial service and retail uses. Most prominent among the features characterizing the surrounding area is the Expo LRT and Culver City Expo station just north and east of the site. The project will be located 10 to 11 feet from the elevated train platform creating unique views within the project and from the train. To the west of the project is a one story brick commercial/warehouse

building and directly north are Washington Boulevard and a warehouse/distribution building. To the south are Landmark Street and light industrial uses and Pak Century private school.

Project Description

The project is one of several new Transit Oriented Developments that are proposed for the area surrounding the new Culver City Expo Station.

The proposed project known as "Platform" consists of six buildings, Buildings A through F (totaling approximately 227,136 square feet). There will be approximately 41,253 square feet of retail and restaurant uses and 38,120 square feet of office uses. There are two above ground parking structures; one is an existing structure consisting of three levels totaling approximately 39,940 square feet (including roof level area) and the other is a new structure consisting of retail/restaurant uses at the ground level and parking on the upper five levels totaling approximately 112,886 square feet (including roof level). The new six level parking structure, Building B is located on the smaller site and the existing three level parking structure (Building D) is located on the larger site. Both parking structures combined accommodate a total of 291 parking spaces.

The project includes adaptive reuse of some existing buildings (Building C, D and F) in conjunction with construction of new buildings to create a community oriented shopping environment with office uses in some of the buildings (Buildings A, B and E) at the upper levels. Currently, the site consists of approximately 85,832 square feet of building area. The total net new building area will be approximately 141,304 square feet with the majority of this new square footage consisting of the new parking garage (Building B, 112,886 square feet) located on the smaller site.

The six buildings are connected by a pedestrian network of open space between the buildings. This open space includes two "paseos" or pedestrian walks and a 7,000 square foot open air central courtyard. The courtyard serves as an interactive community space that connects the two paseos as well as to Washington Boulevard. The developer envisions the open air central courtyard paseos as venues for special events such as art exhibitions, outdoor evening movie showings, community festivals, philanthropic charity events, outdoor fashion shows, and family oriented special events. Pedestrian amenities such as canopies, benches and landscape elements will enhance the street frontage of Washington Boulevard and offer a variety of pedestrian amenities.

The property currently is divided into three lots on the larger site and one lot on the smaller site. All of the lots are under common ownership. A covenant and

agreement, as part of this project, will combine the lots into one parcel. The covenant and agreement will also tie all on-site parking at both sites to create common parking for the project.

The project will have offsite improvements including new sidewalks, street furniture and street trees and bike lanes adjacent to the site as well as various operational and circulation improvements at the adjacent intersection of Washington Boulevard and Landmark Street. It also includes new crosswalks on Washington Boulevard and Landmark Street. These improvements must comport with a TOD District Streetscape Plan that will be prepared for the area.

The owner's expectation is to develop a place-making project. The project is designed as a high quality multi-use commercial development with ample plazas and setbacks to provide opportunities for outdoor dining and landscaping. Staff has worked with the project developer and the community to incorporate design and land use features that enhance the street and are fitting with adjacent areas. The office component is also key element of the project. The office tenants that the developer envisions include technology, fashion, and media companies. These types of companies are prevalent in the Hayden Tract and Downtown Culver City and it is the intent of developer to build upon that attraction in tenanting the project. The office uses will maximize the benefits of close proximity to the light rail station. The retail space will include design features that help ensure quality retail tenants with attractive storefronts and signage. The materials, colors and textures of the building evoke a contemporary look. The building finishes include stucco, wood siding, corten steel, brick veneer, metal and rock cladding, and store front glass. The buildings include setbacks at the ground level and stepbacks at the upper levels to create an attractive building form and provide visual interest. The project will also include public spaces and plazas with benches, planters, seating niches, trellis structures and green screens and an artist mural is proposed for the east building elevation of Building B and north elevation of Building D.

Property line walls will be constructed on those portions of Buildings B and E that are situated at zero lot lines. Building D is an existing building and its property line wall will remain. On Building B there are two property line walls, one facing the west, and one facing south. As required by the Building Code, no window openings will be located where there are zero setbacks, however, architectural relief will be provided in the form of square and rectangular shaped recessed or niched areas. These recessed areas will be distributed over the wall surfaces and treated with Resysta siding finish (which is a durable, recycled material but has a natural wood appearance). The product is a sustainable material that will add color and visual interest to these zero setback areas of the project. Building

E's interior property line wall faces a large warehouse building and will be finished in stucco.

An alternate design option is proposed for Buildings A and Building E as part of the requested Comprehensive Plan. In the interest of increasing the pedestrian flow and circulation through the project site, Building A was split into two separate buildings allowing pedestrians to enter the project site at multiple locations along Washington Boulevard. The two building sides are connected by sky-bridges to accommodate the building circulation while introducing more light into the newly created open air atrium space. The alternate design option breaks up the massing of Building A by providing a paseo from Washington Boulevard. The alternate design option maintains the same contemporary architectural treatments as described above.

To counter balance the lost building area of approximately 3,500 square feet in Building A due to the paseo, the layout and floor area of Building E has been changed. The office space has been moved to the second floor with the restaurant space and terrace dining area now occupying the top floor, allowing for 360 degrees views above the adjacent Expo light rail bridge. The office floor area in Building E has increased by approximately 2,500 square feet and the restaurant/retail space has been increased by approximately 1,600 square feet for a total of approximately 4,100 square feet. This slight increase (600 square feet) in overall building area is due to additional required circulation for the 3rd floor restaurant space. The alternate design option for Building E maintains the same contemporary architectural treatments as described above.

The alternate design option was conceived after the full application package was received. The developer included this alternate option based on feedback from potential tenants and a desire to provide a direct connection from Washington Boulevard to the paseo behind Building A and to create a more dynamic restaurant space on Building E by relocating it to the third floor. The alternate design option is preferred by the developer.

ANALYSIS:

In order to facilitate the proposed project, a Zoning Code Map Amendment and Comprehensive Plan are required pursuant to Zoning Code Section 17.240, Planned Development Zoning Districts and Section 17.560, Comprehensive Plans. The proposed Zoning Code Map Amendment includes re-zoning the project site from Industrial General (IG) to Planned Development (PD) (see Attachment No. 2). The proposed Comprehensive Plan includes the development standards and allowed land uses in the newly established PD

zoning district. The intent of a Comprehensive Plan is to allow for flexibility in the application of the Zoning Code standards for larger scaled proposed developments. A Comprehensive Plan considers innovation in site planning in order to more effectively respond to site features, uses on adjoining properties, and other impacts that the Zoning Code may not be able to adequately address. The PD zoning district is the zoning designation created for a site that has been entitled with a Comprehensive Plan.

Comprehensive Plan

The project has been designed to conform to all applicable Zoning Code provisions for a Comprehensive Plan and all City development standards. The building mass and scale has been designed to be compatible with the surrounding adjacent uses and to provide a pedestrian orientation along Washington Boulevard. The buildings will cover roughly 75 percent of the site, with the remainder of the site developed with courtyard open space, landscaping or pedestrian circulation. The proposed and rehabilitated buildings are well articulated and aesthetically engaging by incorporation of varying building heights, setbacks and design elements. The project's mechanical equipment and refuse containers have been designed to be concealed from the street, public places and neighboring properties.

Height: The Planned Development district as well as the Commercial General zone allows a maximum 56' foot height limit. The proposed buildings will range from one to six stories, all of which are consistent with the maximum height requirement of 56 feet for commercial general designated areas.

Setback: The building frontage at ground level along Washington Boulevard will be setback at varying widths of 8.9' at a minimum and 13' at a maximum (with the exception of an existing building which is a zero setback) to accommodate pedestrian amenities such as landscaped planter areas, seating niches for tables and benches, and building canopies to provide for an enhanced pedestrian friendly street edge.

Various building setback and stepback provisions of Comprehensive Plan result in buildings that are compatible in size and scale with the existing single and multi-story commercial buildings surrounding the project site.

General Land Use Provisions: The permitted uses in the Comprehensive Plan shall be compatible with the General Corridor Land Use designation of the

General Plan, which is intended to support desirable existing and future neighborhood and community serving uses that are compatible with adjacent residential neighborhoods and with the Exposition Light Rail Transit TOD district which encourages transit oriented uses. The uses in the Comprehensive Plan are intended to be similar in nature to the allowed and permitted uses of the Commercial General (CG) zone including but not limited to medium scale commercial, restaurant, office, and retail services. However, certain uses permitted under the CG zoning district such as auto related or auto repair facilities, warehousing or distributing facilities are not allowed in the Comprehensive Plan because they preclude pedestrian friendly or transit oriented development. The project lies along the southerly edge of Washington Boulevard, contributing in a major way to the character of the boulevard. The ground floor will contain retail, eating and drinking establishments and artisan businesses.

The open areas of the project will include outdoor dining and an open air courtyard with community oriented uses such as live music, farmers markets and fashion events. Office uses will be located on the upper levels. The project is designed to be pedestrian oriented and the mixes of permitted uses are intended to draw patrons from the surrounding neighborhoods as well as from the adjacent Expo LRT station.

- Open Space/Courtyard: A large attractive open courtyard area is designated for a portion of the property interior, providing a site amenity for retail, restaurant and office tenants and customers. The open courtyard space is on grade which allows on-grade planting, ground water recharge and landscaping with mature trees in addition to shrubs and ground cover. The Courtyard provides an opportunity for outdoor dining and a programmed space for occasional special events.

- Special Events: Various types of special events and temporary events, outdoor or indoor, public or private will take place within the open courtyard area or the rooftop level of the two parking structure(s). Various types of special events including markets and fairs, performances and public events and private events may be allowed subject to the provisions of Zoning Code Chapter 17.520 “Temporary Use, Special Event, and Temporary Event Permits” and as outlined in the proposed Comprehensive Plan:

- Outdoor Dining: Outdoor dining is a key contributor to the pedestrian experience. The areas identified for outdoor dining are shown on the Comprehensive Plan.

Architectural Design: The proposed project has a contemporary industrial feel particularly along the Building A Washington Boulevard frontage that is clad in corrugated metal and includes exposed metal diagonal bracing that is intended to replicate the look of stacked ”box cars” to evoke the project name, Platform. Other buildings in the project contain a mix of materials including stucco, wood siding, metal cladding, glass store fronts, wood, metal and glass railings, corten steel and aluminum framing but overall reflect a contemporary project image. The colors are predominantly natural and neutral with bright color accents that will fit the neighborhood character. The buildings are well articulated with the use of stepbacks, overhangs and canopies; private balconies for office uses on the second and third floors; substantial use of planter areas and open space/courtyard areas which provide architectural articulation on of the sides of building. The project will enhance the visual quality of the site and will be a significant improvement for the immediate area.

Site Plan: The project has been laid out as a “campus” of six buildings which reflects the adaptive reuse of the property and the geometry of the site. The campus feel is created by varied building height and form and the pedestrian network of paseos. The varied building form and setbacks helps avoid a monolithic project feel. A central court provides a formal project entry comprised of elevated planter, seat walls and planting with canopy shade trees, shrubs and ground covers and connects to the pedestrian paths that wind through the project. Some of the project restaurant space will front on the courtyard creating the opportunity for outdoor dining. The adaptive reuse allows the development to make use of existing buildings, but also results in some public space shading that will occur along the paseos located immediately to the north of Buildings C, D and E.

The Central Courtyard is also proposed to be used intermittently for special events creating opportunities for public gatherings such as art or craft fairs or small farmer’s markets. The project layout therefore provides the benefit for maximizing site use for pedestrian serving purposes consistent with the goals for establishing a Transit Oriented District.

Sustainability/Green Building Features: The project is comprised of adaptive reuse and new construction. The reuse of buildings coupled with green building retrofit and sustainable new construction will help make the project energy efficient, conservation friendly and reduce the project carbon footprint. The proposed project will incorporate building design standards to meet the Culver City Green Building Program, California Green Building Code and U.S. Green Building Council (USGBC’s) Leadership in Energy and Environmental Design (LEED) green building standards. Sustainable/green building elements include:

Conservation: In an effort to promote the conservation, reduction, reuse, and recycling of renewable and non-renewable resources, the project is:

- Using non-wood alternatives for exposed wood products such as Resysta (simulated wood manufactured from rice husks) in the wood details, benches soffits and Trespa (a Phoenelic resin panel made to look like wood) in the facades of some of the store fronts.
- Using local manufactured products where possible.
- Storm Water Filtration systems.
- Highest rated building insulation.
- Operable windows in all retail and office spaces.
- Permeable exterior paving surfaces to reduce storm water run-off, wherever possible.

Energy Efficiency: The following provides a list of energy efficient and sustainable specifications that have been incorporated into the project:

- Photovoltaic electricity generation consistent with the City's Photovoltaic Solar Ordinance.
- Low flow /low consumption bathroom fixtures
- Landscape design with drought tolerant planting to conform with AB 1881 low water usage.
- Green-screen walls systems incorporated into the courtyard landscape design to minimize solar gain in buildings and along public spaces
- Reduce energy consumption with LED lighting.
- Dual low emissivity glazing.
- Building façade shading elements (awnings, building projections, roof overhangs) to reduce solar heat gain.
  Operable windows to permit natural cooling.
- High efficiency heating and air conditioning systems.

Carbon Emission Reduction: The following provides a list of carbon emission reduction items that have been incorporated into the project:

- Building reuse and building conservation.
- Bicycle racks located throughout the site to support biking to the project.
- Project location adjacent to the Expo Culver City LRT to permit easy and convenient access for project office commuters or customers.
- Participation and support of a potential shuttle service that will connect the Hayden track, the Expo Station and Downtown Culver City.
- Preferred parking for low emission vehicles and carpools vehicles.
- Sourcing products from local manufacturers wherever possible.

Landscaping. The Platform exterior has four distinctive landscape character zones; Washington Streetscape, The Central Courtyard, Greenhouse/Landmark (Building E/F), Paseos, and WashArts (Building B). Each having unique landscape characters summarized below.

The Washington Streetscape will follow Culver City Streetscape Guidelines. Street trees and furnishings will be coordinated with the City's Transit Oriented Development District Streetscape Plan that is being prepared for the area. The Central Courtyard will be a shaded seating area with planter seat wall and informal groupings of tables, chairs and benches. The landscape plan includes formal planting of canopy shade trees such as Olea Europea (Fruitless Olive) and Quercus Agrifolia (Coast Live Oak). The paseo between the Greenhouse Building E and Showroom Building F will include an Ivy trellis constructed from rebar and formed into arches projecting from the wall. The Ivy Arches will frame the space and views as the plan renderings indicate. The WashArts Building B has a plant palette with of varying colors (white, orange, red and magenta) of Bougainvillea on the stair towers to serve as a landscaped color accent.

Offsite Park Area. The applicant is working with the City and the Los Angeles County Metropolitan Transit Authority (LACMTA) to use the Metro right of way area directly adjacent and east of the site as a small parkette. The parkette would be connected to the development through one of the paseos that may be extended beneath the Metro Expo LRT bridge. The parkette plans are not defined but may include some passive elements such as landscaped walks, seating areas, art pieces and potential outdoor vending as approved by the City.

Parking and Access. Vehicle Parking for the project site is provided at a ratio of 1 stall per 250 square feet of retail and restaurant floor area consistent with the Zoning Code parking requirements for shopping centers and 1 stall per 350 square feet of office floor area consistent with the Zoning Code parking requirements for office uses. Outdoor dining areas up to 500 square feet per restaurant are covered under these parking requirements. Outdoor dining areas larger than 500 square feet per restaurant space including roof top dining at Building E are required to provide 1 stall per 250 square feet in excess of the initial 500 square feet, up to 3,750 square feet or 15 cars. The Zoning Code allows the first 250 square feet of outdoor dining to be allowed without requiring parking. The increase to the first 500 square feet is justified by the amount of parking that will be provided on-site and the nature of the expected population the project will serve. Many users of the outdoor dining area will generally include local office workers from the site and employees and residents from the adjacent Hayden Tract and TOD developments and will not likely generate additional parking demand. It is expected that many site users will be arriving by

alternative modes of travel such as walking, bicycling, or by taking the bus or train to the site.

A total of 291 parking spaces are provided on both sites in order to meet the Zoning Code required parking for the project. Driveways located along Landmark Street will provide access to the project's parking structures. One driveway would be located on the west side of the street providing access to the new 219-space parking structure. Three driveways would be located on the east side of the street, two driveways providing access to the existing 72-space parking structure and the other driveway providing access to the loading/trash collection area. The existing driveways to the site along Washington Boulevard will be removed. Motorists entering and exiting the site's driveways will have adequate maneuvering space and visibility. Additionally no stopping zones will be striped as necessary for improved driver visibility.

Long term bicycle parking is being provided within fully enclosed bicycle lockers in the newly built parking structure on the corner of Landmark Street and Washington Boulevard (Building B). These lockers are coin/card operated and available for the general public. Additional long term bike parking is available within a gated keycard operated area inside the parking structure on the main site (Building D). To facilitate employee and office worker bike commuting, a keycard protected shower is provided in the existing parking structure (Building D). In addition, short term bike racks are provided along Washington Boulevard in the public right of way.

Loading for the project is proposed on-site in two dedicated locations. The first loading area will be located on the larger parcel and will accommodate large trucks. The second loading area is located inside the new parking structure and will accommodate smaller, van size delivery trucks (e.g. UPS delivery trucks).

Traffic and Circulation

A traffic study prepared for the proposed project, dated July 11, 2011, and supplemented on March 5, 2012, by Raju Associates Inc. was reviewed and accepted by the City's Traffic Engineer. Parking, access and circulation systems were assessed as part of the study. A review of the proposed site plan was also conducted. This review indicates that the project would adequately and that there would not be adverse impact from the proposed project.

The traffic analysis evaluated thirty-four (34) intersections in the vicinity of the project site during both the AM and PM peak hours. Of the 34 intersections, 17 are located within the City of Culver City and 17 intersections within City of Los Angeles.

In order to assess the potential impact of the proposed project on the local street system, and using the City's significance criteria, the traffic study compared the volume to capacity (V/C) ratio, which is a numerical measure of traffic congestion, at each study location to determine the incremental difference in V/C ratios caused by the proposed project. The "Critical Movement Analysis-Planning" method of intersection capacity analysis was used to determine the intersection V/C ratio and corresponding level of service (LOS), which is a letter-grade measure of traffic congestion, at each of the signalized intersections.

The study indicates that 24 of the 34 analyzed intersection locations are operating at acceptable levels of service (LOS) D or better during the morning peak hour. During the evening peak hour, 26 of the 34 analyzed intersections are operating at LOS D or better. The remaining intersections are operating at LOS E or F.

Using the threshold criteria for determining significance of impacts of a project at a specific location, the traffic analysis concluded one (1) out the thirty four (34) analyzed intersection locations would be impacted by traffic generated by the proposed project unless mitigation is incorporated. As a result of the traffic generated by the proposed project, during the evening peak hour, the Washington Boulevard/ National Boulevard intersection would exceed the threshold for significance impact by .003 or .3%, which is an extremely small amount and would not be considered significant. The traffic study concluded that there would not be a significant impact at any of the remaining intersections studied.

In order to address the project's impact at the intersection of Washington Boulevard/National Boulevard, the project is required to contribute funds ($50,000) for either the study and implementation of a shuttle system that would operate within proposed project's study area or the implementation of Adaptive Traffic Control Systems (ATCS) at the intersection of Washington Boulevard/National Boulevard. Funding of a study and implementation of a shuttle service would improve traffic flow by reducing the amount of vehicles in the immediate area because of the use of the shuttle. Similarly, implementation of ATCS will improve traffic flow and reduce delays in the affected intersection through the use signal synchronization.

There will be off-site improvements as part of the proposed project. The proposed project will include various pedestrian and vehicular operational improvements at and near the adjacent signalized intersections of Washington Boulevard and Landmark Street. To improve access to the proposed project's facilities which are located off of Landmark Street, the proposed project will

require the design and construction of a westbound left-turn signal at the intersection of Washington Boulevard and Landmark Street including all associated costs for the modification of the traffic signal. Additionally, the curb at the southwest corner and southeast corner of Landmark Street and Washington Boulevard will be reconstructed to provide a larger radius and minimize the impact of the existing acute angle experienced by motorists eastbound on Washington Boulevard turning onto Landmark Street. The above changes will enhance ingress/egress for motorists on Landmark Street, particularly for larger trucks and emergency vehicle access.

Offsite and Streetscape Improvements

Pedestrian Setback: The project has been designed to include a "pedestrian setback" along the major street frontage at the intersection of Washington Boulevard and Landmark Avenue. This setback will allow ample area for outdoor dining, installation of street trees, planters, trellis structures, arbors and other pedestrian amenities.

Pedestrian related improvements include widening the roadways to provide pedestrian friendly sidewalks. The project is required to install a 5' wide sidewalk along both the project's frontage along Landmark Street. The sidewalk along Washington Boulevard will be reconstructed to provide a 10' wide sidewalk. Also at the Washington/Landmark signalized intersection, a new crosswalk across Washington Boulevard at the east side of the intersection will be installed (a crosswalk currently exists on the west side of the intersection).

Transit Oriented Development District Streetscape Plan: The City is currently developing a streetscape plan for the TOD District (see Attachment No. 3, TOD Area Map). The project is required as condition of approval to comply with the streetscape program for the area to be prepared as part of the Transit Oriented District Streetscape Plan and funded on a pro rata basis by area developments. The plan will include new canopy street trees, planters and tree grates, new concrete sidewalks and new street furniture (benches, trash receptacles, and bicycle racks). Also, a new bus shelter will be provided at the bus stop in front of the project site.

The existing palm trees will be replaced with new street trees. Exact tree location will be determined pursuant to the placement of traffic signal equipment and utilities and production of the TOD Streetscape Plan. The preliminary landscape plan identifies the London Plane tree (Platanus Acerfolia) as the street tree that best fits the area in terms of scale and shade producing characteristics.

Infrastructure and Community Facilities District

Based upon the proposed development in the project Comprehensive Plan, the site development will not require major upgrades to infrastructure such as water, sewer, or gas; however, some utility relocation as well as various offsite streetscape improvements will be required. The property owner/developer is responsible for all project related public improvements and services.

A Community Facilities District (CFD) is one financial tool available to commercial property owners within the TOD District to help fund public improvements and services through private property assessment and bond finance. A CFD can ensure timely completion of all necessary public improvements. Consistent with the CFD provisions in the City's Municipal Code (Section 15.12.35), if established, the CFD funding may be based upon a pro rata assessment for each commercial parcel within the District. The kinds of improvement that may be funded on a pro rata basis include:

- New Infrastructure
- Utility Relocations
- Streetscape Improvements
- On-going maintenance

Community Meetings

Pursuant to the City's Community Outreach Guidelines, the applicant hosted three community meetings on November 30, 2010, May 5, 2011, and April 12, 2012. They hosted an additional community meeting on August 1, 2012.

All of the community meetings were well attended with approximately 20 people per meeting. The feedback and input were generally positive and no written correspondence in opposition to the proposed project has been received. Attendee questions or comments were related to the project's connection to the Metro Exposition Light Rail Transit line and station, types and size of uses proposed, parking provision, and access to and from the site. Attendees also asked about the project schedule and when the project would begin construction.

CONCLUSION:

Platform is the first of several Transit Oriented Developments proposed in connection with the Culver City Expo station. Staff has worked closely with the applicant on the Platform Comprehensive Plan in order to ensure that it is coordinated with future TOD projects and is fitting for the area.

A Comprehensive Plan is intended to reflect innovation in site planning and design in order to more effectively respond to site features and minimize impacts upon surrounding properties. Toward that end, the proposed PD zoning and Comprehensive plan for Platform will help advance the goals good planning for the site and achieve the City's goals for transit oriented development.

Based on the analysis contained herein staff believes the findings for a Comprehensive Plan and Zoning Code Map Amendment can be made as outlined in proposed Resolution No. 2012-P011 (Attachment No. 4) and recommends project approval.

ENVIRONMENTAL DETERMINATION:

Pursuant to the California Environmental Quality Act (CEQA) guidelines a Mitigated Negative Declaration (MND) has been prepared; the project has been determined that with mitigation measures incorporated, it will have less than significant impacts on the community.

ALTERNATIVE OPTIONS:

The following alternative actions may be considered by the Planning Commission:

1. Approve the application with the recommended conditions of approval if the application is deemed to meet the required findings.

2. Approve the application with additional or different conditions of approval, if deemed necessary to meet the required findings and mitigate any new project impacts identified at the meeting.

3. Disapprove the application if it does not meet the required findings.

ATTACHMENTS:

1. Area Map
2. Zone Change Map
3. Transit Oriented Development District Map
4. Draft Resolution No. 2012-P011 (ZCMA P-2012020, CP-P2012018, MND – P-2012019).
5. Initial Study/Mitigated Negative Declaration dated August 22, 2012.
6. Traffic Analysis prepared by Raju and Associates Inc, dated July 2011 and supplemented on March 2012.
7. Comprehensive Plans date stamped August 29, 2012.

ATTACHMENT 5

Culver CITY

(310) 253-5710

FAX (310) 253-5721

PLANNING DIVISION

9770 CULVER BOULEVARD, CULVER CITY, CALIFORNIA 90232-0507

PROPOSED MITIGATED NEGATIVE DECLARATION

Project Title and File No.: Platform Comprehensive Plan (CP- P2012018) and Zoning Code Map Amendment (ZCMA P-2012020)

Project Location: 8810, 8840, 8850 Washington Boulevard and 3920 Landmark Street.

Project Sponsor: Joseph Miller, The Runyon Group (Applicant/Owner)

Project Description: Proposed Comprehensive Plan and Zoning Code Map Amendment, amending the official Culver City Zoning Map, as referenced and established in Section 17.200.015, Title 17 (Zoning Code) of the Culver City Municipal Code by changing the zoning on the property located at the southwest and southeast corner of Washington Boulevard and Landmark Street from Industrial General (IG) to Planned Development (PD). The Platform Comprehensive Plan and PD Zone allows for a development comprised of a mix of compatible land uses including office, retail, and restaurant, located near the Culver City Exposition Light Rail Transit line and station. Platform comprises approximately 41,253 square feet of retail and restaurant uses and 38,120 square feet of office uses. There are two above ground parking structures that will provide a total of 291 parking spaces.

Environmental Determination:

This is to advise that the City of Culver City, acting as the lead agency, has conducted an Initial Study to determine if the project may have a significant effect on the environment and is proposing this MITIGATED NEGATIVE DECLARATION based on the following finding:

☐ The Initial Study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or

☒ The Initial Study identified potentially significant effects, but:

1. Revisions in the project plans or proposals made by, or agreed to by the applicant before this proposed MITIGATED NEGATIVE DECLARATION AND INITIAL STUDY was released for public review would avoid the effects or mitigate the effects or mitigate the effects to a point where clearly no significant effects would occur, and

2. There is no substantial evidence before the agency that the project as revised may have a significant effect on the environment.

A copy of the Initial Study, and any applicable mitigation measure, and any other material which constitute the record of proceedings upon which the City based its decision to adopt this MITIGATED NEGATIVE DECLARATION may be obtained at:

City of Culver City, Planning Division
9770 Culver Boulevard, Culver City, CA 90232

The public is invited to comment on the proposed MITIGATED NEGATIVE DECLARATION during the review period, which ends **September 12, 2012.**

Susan Yun 8/22/12

Susan Yun, Senior Planner — August 22, 2012

ATTACHMENT 5
(310) 253-5710
FAX (310) 253-5721

Culver CITY
PLANNING DIVISION
9770 CULVER BOULEVARD, CULVER CITY, CALIFORNIA 90232-0507

INITIAL STUDY
ENVIRONMENTAL CHECKLIST FORM AND ENVIRONMENTAL DETERMINATION

Project Title/ Case Nos:	Platform Comprehensive Plan (CP) - P2012018 Planned Development (PD) Zoning Code Amendment (ZCMA) - P2012020 Mitigated Negative Declaration (MND) – P2012019		
Lead Agency Name & Address:	City of Culver City, Planning Division 9770 Culver Blvd., Culver City, CA 90232		
Contact Person & Phone No.:	Susan Yun, Senior Planner (310) 253-5755		
Project Location/Address:	8810-8850 Washington Boulevard and 3920 Landmark Street		
Nearest Cross Street:	National Boulevard and Landmark Street	**APN:**	4206-013-006 4206-013-007 4206-013-008 4206-013-024
Project Sponsor's Name & Address:	Joseph Miller The Runyon Group 9900 Culver Boulevard, Ste 1A Culver City, CA 90232	Bjorn Shrader Abramson Teiger Architects 8924 Lindblade Street Culver City, CA 90232	
General Plan Designation:	General Corridor	**Zoning:**	Industrial General (IG)
Overlay Zone/Special District:	Transit Oriented Development Area and Commercial Zero Setback Overlay Zone		

Project Description and Requested Action: *(Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary)*

The proposed project is a multi-use commercial development located near the Exposition Light Rail Transit line and station in Culver City (Expo). The project comprises two sites totaling approximately 2.06 acres (Parcel 1 totals .5 acres and Parcel 2 totals 1.56 acres). Landmark Street is between the two sites and both sites front Washington Boulevard.

The project consists of six buildings totaling 227,136 square feet (Buildings A through F). There will be approximately 41,253 square feet of retail and restaurant uses and 38,120 square feet of office uses. There are two above ground parking structures; one is an existing structure consisting of three levels totaling 39,940 square feet (including roof level area) and the other is a new structure consisting of retail/restaurant uses at the ground level and parking on the upper five levels totaling 112,886 square feet (including roof level). The new six level parking structure (Building B) is located on the smaller site – Parcel 1 and the existing three level parking structure (Building D) is located on the larger site – Parcel 2. Both structures combined accommodate a total of 291 parking spaces.

The project includes adaptive reuse of some existing buildings (Building C, D and F) in conjunction with construction of new buildings to create a community oriented shopping environment with office uses in some of the buildings at the upper levels. Currently, the site consists of approximately 85,832 square feet of building area. The total net new building area will be approximately 141,304 square feet with the majority of this new square footage consisting of the new parking garage (Building B - 112,886 square feet) located on the smaller site - Parcel 1.

The six buildings at Platform are connected by open space between the buildings. This open space includes two paseos and a 7,000 square foot open air central courtyard. The courtyard serves as an interactive community space that serves as the connector to the two paseos as well as to Washington Boulevard. Pedestrian amenities such as canopies, benches and landscape elements will enhance the street frontage of Washington Boulevard and offer a variety of pedestrian amenities.

The project will be built on one lot on Parcel 1 and on three lots on Parcel 2, all of the lots are currently owned by the same owner. A covenant and agreement, as part of this project, will tie the three lots to into one parcel on Parcel 2.

The requested approvals include a Comprehensive Plan and a Zone Change from Industrial General (IG) to Planned Development (PD) District to construct a multi-use commercial complex containing six buildings ranging in height from one to six stories.

The project also includes offsite improvements including new curb, gutter, sidewalk, street furniture and street trees. It also includes new crosswalks on Washington Boulevard Street and Landmark Street.

Existing Conditions of the Project Site:

The project is comprised of two sites. Parcel 1 is the smaller site consisting of .5 acres of land with approximately 5,817 square feet of existing building area. Parcel 2 is the larger site consisting of 1.56 acres of land with 80,015 square feet of existing building area. Both sites front Washington Boulevard with Landmark Street bisecting the project. Both sites were previously occupied by a car dealership several years ago. The site is flat in topography and contains one to two story building structures with two at grade paved surface parking lots at the front of both sites adjacent to Washington Boulevard. The larger site contains buildings that were used by the car dealership such as a warehouse, service repair bay area, a showroom, office areas, and a three level parking structure. Some of the buildings such as the parking structure, service repair bay building and a portion of the warehouse structure will not be demolished and adaptively reused/renovated as part of the proposed project. The smaller site contains a smaller structure which will be demolished and replaced with a new six level parking structure with the ground floor dedicated to retail uses.

Surrounding Land Uses and Setting: *(Briefly describe the project's surrounding)*

West: One story brick commercial/warehouse building
East: Metro Right of Way and National Boulevard beyond
North: Washington Boulevard and a warehouse/distribution building and Expo Light Rail Station beyond
South: Landmark Street and warehouse buildings and a private school beyond

Other public agencies whose approval is required: (*e.g., permits, financing approval, or participation agreement)*
None

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a 'Potentially Significant Impact' as indicated by the checklist on the following pages:

- ☐ Aesthetics
- ☐ Agriculture and Forestry Resources
- ☐ Air Quality
- ☐ Biological Resources
- ☐ Cultural Resources
- ☐ Geology /Soils
- ☐ Greenhouse Gas Emissions
- ☐ Hazards & Hazardous Materials
- ☐ Hydrology / Water Quality
- ☐ Land Use / Planning
- ☐ Mineral Resources
- ☐ Noise
- ☐ Population / Housing
- ☐ Public Services
- ☐ Recreation
- ☐ Transportation/Traffic
- ☐ Utilities / Service Systems
- ☐ Mandatory Findings of Significance

ENVIRONMENTAL DETERMINATION:

On the basis of this initial evaluation:

☐ I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

☐ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

☐ I find that the proposed project **MAY** have a 'potentially significant impact' or 'potentially significant unless mitigated' impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPO**RT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Susan Yun, Senior Planner — 8/22/12 Date

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Responses:

a) *Less than Significant Impact*. The project is located in an urbanized area, with commercial and warehouse/industrial buildings in the immediate vicinity. The topography surrounding the site is relatively flat with no substantial ocean or mountain views that can be considered scenic that will be affected by the project. No mitigation measures are necessary.

b) *Less than Significant Impact*. There are no identified rock outcroppings or historic buildings within a state scenic highway on the site. The project site is currently developed with buildings and surface parking areas, and no landscaped areas. There are a few street trees (palm trees) that are randomly placed along the project's street frontage. These trees are planned to be removed and replaced with columnar type shade trees.

The proposed project will include enhanced landscaping onsite by providing significant planting of columnar type trees in the courtyard area and various planters along the building's frontages and paseos. Streetscape or off-site enhancements include planting of new street trees with ground cover along with associated streetscape furniture such as new benches, new trash receptacles, and bike racks will provide visual uniformity and enhancements to the project's streetscape. The proposed landscaping both onsite and offsite will reduce any potential impact to a level that is less than significant. No mitigation measures are necessary.

c) *Less than Significant Impact*. Less than Significant Impact. There is minimal visual character or quality of the project site as it is predominantly vacant and void of any trees or significant landscaping. A chain link security fence surrounds the perimeter of the project site that is currently vacant with empty buildings and paved parking lots.

The proposed project will improve the visual character and quality of the project site by constructing a new architecturally modern building making use of a variety of building materials including stucco, wood siding and cladding, glass store fronts, wood and metal railings, corten steel and aluminum framing. In addition, the one to six-story buildings are consistent with the maximum height requirement of 56 feet for commercial general designated areas. Various building setback and stepback provisions of the Zoning Code result in a building that is compatible in size and scale with the existing single and multi-story commercial buildings surrounding the project site. The development will also incorporate sustainable design and construction features that comply with the Culver City Green Building Program, California Green Building Code and equivalent Leadership in Energy and Environmental Design (LEED). This includes the installation of a photovoltaic system, landscaping design with drought tolerant plants, and to the extent possible use of planter areas as a filtration system for roof storm water runoff, inclusion of substantial open space/courtyard areas onsite for visitors and employees, passive building design elements to maximize day lighting and natural ventilation.

As mentioned in Section I.b. above, the project will result in enhanced and improved streetscape improvements with the addition of new street trees and landscaping along the public right of way. Furthermore, the proposed project once implemented will act as a catalyst to help redevelop the commercial area at this section of Washington

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

Boulevard by creating an active and pedestrian friendly commercial streetscape. The buildings along Washington Boulevard are setback at varying widths of 8.9' at a minimum and 13' at a maximum (with the exception of an existing building which is a zero setback) in order to accommodate pedestrian amenities such as benches, awnings, and landscaped planters.

In conclusion, the project will not degrade the visual character of the site and will be a significant improvement for the immediate area. No mitigation measures are necessary.

d) *Less than Significant Impact*. The proposed project will bring new sources of light at nighttime from exterior lighting of the building and to a smaller extent, interior lighting of the building. However, the project is required to be built to City codes and all lighting is required to be shielded or recessed so that direct glare and reflections are confined to the boundaries of the site and do not shine or glare directly onto adjacent public and private properties. With implementation of these code requirements, this potential impact is reduced to a level that is less than significant. No mitigation measures are necessary.

Mitigation Measure(s): None required

II. **AGRICULTURE RESOURCES AND FOREST RESOURCES:** In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Responses:

a)- e) *No Impact*. The project site is not located on land identified, utilized, or zoned for agricultural purposes, and

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

there is no known Williamson Act contract in effect on the project site. The site is located in an urban area and there is no forest land in the vicinity of the project site. No mitigation measures are necessary.

Mitigation Measure(s): None required

III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e)	Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Responses:

a) *Less Than Significant Impact*. The project site is within the South Coast Air Basin (SCAB), which includes the non-desert portions of Los Angeles, Orange, Riverside, and San Bernardino counties. Air quality conditions in the Basin are under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD and the Southern California Association of Governments (SCAG) are responsible for formulating and implementing an Air Quality Management Plan (AQMP) for the basin. The current AQMP was approved in 2007 and the Draft 2012 AQMP is expected to be adopted in November of 2012. Implementation of the AQMP is based on a series of control measures that vary by source type, such as stationary or mobile, as well as by the pollutant targeted. Since the AQMP (and the Draft 2012 AQMP) is based on growth projections reflected in local general plans, only new or amended general plans or projects that exceed the level of development contemplated in the general plan have the potential to conflict with the AQMP. The proposed project does not require an amendment to the General Plan land use designation of General Corridor and is consistent with expected commercial development potential build out along the Washington Boulevard commercial corridor and is consistent with the Planned Development (PD) Zoning development standards. There is no conflict with the AQMP (or Draft 2012 AQMP) and no mitigation measures are necessary.

b)-c) *Less Than Significant Impact*. Future new development in Culver City may contribute both at the project level and cumulatively to pollutant emissions over existing non-attainment conditions due to both construction and operation of individual projects. This project involves the demolition of various structures (approximately 39,419 square feet) previously used by a car dealership and the construction of six buildings (one to five stories) totaling 227,136 square feet with a total 291 parking spaces in two structured buildings. Some of the buildings including a three level parking garage (approximately 25,376 square feet-not including roof level area), a portion of the warehouse (approximately 6,473 square feet) and the service repair shop area (approximately 5,091 square feet) will not be demolished and will be renovated. The project also includes various offsite streetscape improvements and operational improvements to adjacent intersections of the project site. During construction, air contaminant

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

emissions would result from the use of construction equipment such as bulldozers, trucks, scrapers, loaders, graders, and backhoes, as well as construction workers that would be traveling to and from the project. Project related construction traffic would have a temporary effect on air quality in the vicinity of the project. Construction worker traffic and diesel powered equipment would emit nitrogen oxides, carbon monoxide, sulfur oxides, hydrocarbons, and particulates. These emissions would increase local concentrations temporarily but would not be expected to increase the frequency of violations of air quality standards because the project would be subject to limits on the construction hours contained in the Municipal Code. The project will be subject to standard conditions that will reduce construction related pollutant emissions and dust emissions.

Operationally the project is also not expected to create significant air quality impacts. Based on the Traffic Impact Study prepared for the site, the proposed project will not generate, after mitigation measure incorporated, significant traffic impacts at any of the studied intersections and roadway segments. Thus, emissions resulting from the number of vehicles related to the proposed project in the AM and PM peak hours are not expected to be significant.

Overall, construction emissions would be short-term and limited only to the time period when construction activity is taking place. Therefore, construction emissions would not add to long-term air quality degradation. Further the proposed project will implement standard SCAGMD-approved construction procedures and will comply with applicable provisions of SCAGMD Rule 403.

d) *Less Than Significant Impact*. Sensitive receptors include a private school just south and west of the site on Landmark street. Although the project site would cause emissions in close proximity to the existing school during construction, it would be for a limited period of time and the construction would be subject to standard construction conditions. Operationally as a primary commercial use, emissions would not be expected to be significant or above normal emissions from any existing commercial uses in the project vicinity. Impacts are expected to be less than significant (see Section III. a., above).

e) *Less Than Significant Impact*. Diesel-powered equipment used for construction could cause odors and emissions that may be offensive to sensitive persons. The closest sensitive use to the project area is a private school across the street on Landmark. This would be a temporary impact and would be mitigated by existing AQMD regulations requiring proper maintenance of vehicle engines and exhaust systems, and by standard construction conditions. Therefore, impacts are not expected to be significant. No mitigation measures are necessary.

Mitigation Measure(s): None required

IV. BIOLOGICAL RESOURCES -- Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☒	☐

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

Responses:

a)-f) *Less Than Significant Impact*. The project is comprised of two sites fronting Landmark Street off of Washington Boulevard. Both sites are on disturbed land, developed decades ago and previously occupied by a car dealership use containing various building structures and paved surface parking lots. Both sites are void of significant vegetation or wildlife species. Parcel 1 is the smaller site consisting of .5 acres of land with approximately 5,817 square feet of existing building area. Parcel 2 is the larger site consisting of 1.56 acres of land with 80,015 square feet of existing building area. The site is flat in topography and contains one to two story building structures with two at grade paved surface parking lots at the front of both sites adjacent to Washington Boulevard. The larger site contains buildings that were used by the car dealership such as a warehouse, service repair bay area, a showroom, office areas, and a three level parking structure. Some of the buildings such as the parking structure, service repair bay building and a portion of the warehouse structure will be preserved and adaptively reused as part of the proposed project. The smaller site contains a smaller structure which will be demolished.

The site contains vacant buildings with minimal or no landscaping or significant vegetation. No sensitive native plants or wildlife are known to inhabit the site. There a few street trees (palm trees) that are randomly placed along the project's street frontage. As part of the routine maintenance of the public right of way, commercial parkways and street trees are re-planted. These trees are planned to be removed and replaced with columnar type shade trees consistent with the current City's street tree guidelines. There is no riparian habitat or other sensitive natural community on the site. The project site supports no federally-protected wetlands or waters of the United States as defined by Section 404 of the Clean Water Act. The project site is completely surrounded by development and within an urbanized area and has not been identified as part of a resident migratory wildlife corridor or wildlife nursery site. Development of the proposed project would result in impacts that are less than significant. No mitigation measures are necessary.

Mitigation Measure(s): None required

V. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5?	☐	☐	☒	☐

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Responses:

a) *Less than Significant Impact.* Information on existing conditions of the project site per City records and project application materials indicates that no identified historical resources exist on site and no significant adverse impacts relative to historical resources are associated with the project. The proposed project site includes a smaller parcel (.5 acres) and a larger parcel (1.56 acres) straddling Landmark Street and fronting Washington Boulevard. The sites were previously developed for a car dealership use for a few decades containing various structures such as a warehouse, office area, show room, service repair facility and a parking structure. The car dealership use has since vacated the site and with the proposed project, existing buildings will be demolished and built new. However, some or portions of existing buildings such as the warehouse, parking structure and service repair facility will be rehabilitated. Both sites have not been identified as historic resources.

b) – d) *Potentially Significant Impact Unless Mitigation Incorporated*. The project site is developed and located in an urbanized area surrounded by existing disturbed land and development. All of the building or parking structures are proposed at or above grade so significant excavation is not anticipated. However, due to some of the building structures that are proposed to be multi-story such as the new five story parking structure (Building B) and the four story retail/office structure (Building A) fronting Washington Boulevard, there may be foundation piles that require deep excavation. As such the potential does exist for fossil resources as well as burial sites and other paleontological/archaeological resources to be unearthed during construction activities. Culver City is located in a region of western Los Angeles basin known to contain paleontological/archaeological resources and upon excavation for the foundation piles such resources could surface[1]. This potential impact is considered significant without mitigation. A Phase 1 Archaeological/Paleontological Survey is required prior to building permit issuance. Implementation of the survey described below would reduce the significance of potential impacts to a less than significant level.

Mitigation Measure(s):

CR-1: Prior to building permit issuance, a Phase 1 Archaeological/Paleontological Survey shall be completed and submitted to the Planning Division and Building Safety Division for review. If the Phase 1 Archaeological/Paleontological Survey indicates the presence of archaeological and/or paleontological resources, then an archaeological and/or paleontological professional(s), approved by the City, shall monitor all phases of excavation for the project site. In the event that the Phase 1 Archaeological/Paleontological Survey determines that no such resources exist but undetected fossil resources and/or human remains or other archaeological and/or paleontological resources are encountered during construction activities, work in that area must be halted and both the City of Culver City and the coroner must be notified. Work will be halted in that area of the detected resource until the City of Culver City's archaeologist and/or paleontologist have been contacted to evaluate the resources and permission to commence work in that area has been given by the City of Culver City.

[1] Culver City General Plan Program EIR, November 1995, page 226

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Responses:

a) (i-ii) *Less Than Significant Impact*. Based on a preliminary Geotechnical Engineering Investigation (dated November 5, 2010) prepared by Feffer Geological Consulting, Inc. for the proposed project, the site is not located in an Alquist-Priolo zone. The closest known potentially active fault to the site is the Newport-Inglewood Faults, located within 1.25 miles. Since no active faults cross the property, the surface rupture hazard at the site is very low. However the site is subject to ground shaking during the event of an earthquake.

Standard code requirements require the submittal of the detailed comprehensive geotechnical report to ensure adequate seismic safety and soils stability of all proposed development improvements for the project. In addition, the project grading plan and building plans shall conform to the recommendations in the geotechnical report in a manner meeting the approval of the City. A condition of approval is applied to the project requiring the preliminary Geotechnical report that was submitted to the City during entitlement stage to be updated and/or amended prior to building permit issuance to reflect any new recommendations as a result of final project design, grading and structural plans. Compliance with the recommendations in the geotechnical report and standard building code requirements would reduce this impact to a level that is less than significant. No mitigation measures are necessary.

a) (iii) *Less Than Significant Impact*. Based on information contained in the geotechnical report referenced above, liquefaction hazard is low. The geotechnical report referenced above provides recommendations at the construction stage for adequate seismic safety and soils stability of all proposed development improvements for the project. In addition, the project grading plan and building plans shall conform to the recommendations in the geotechnical report in a manner meeting the approval of the City. Compliance with recommendations in the geotechnical report and standard building code requirements would reduce this impact to a level that is less than significant. No mitigation measures are necessary.

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

a) (iv) *Less Than Significant Impact*. Based on the geotechnical report referenced above, the site is not within an area identified as having a potential for slope instability and there are no known landslides near the site nor is the site in the path of any potential landslides. No mitigation measures are necessary.

b)-c) *Less Than Significant Impact.* The project site is developed with several structures and is surrounded by urban development. The two developed sites do not currently contain top soil as they are surfaced with structures and asphalt parking. Therefore the proposed project will not result in substantial soil erosion or the loss of topsoil where none exists now or where none is needed.

d) *Less Than Significant Impact.* The soils at the project site are considered to have low to medium expansive soil potential based upon soil classifications. However, standard code requirements and conditions of approval requires the preparation of erosion/sediment control plans such as the Local Storm Water Pollution Prevention Plan (LSWPPP) and Standard Urban Storm Water Mitigation Plan (SUSMP), to regulate and control pollutant run-off by using Best Management Practices (BMP's) in accordance with National Pollutant Discharge Elimination System (NPDES). These plans shall show all temporary and permanent erosion control devices, effective planting of graded slopes, practical accessibility for maintenance purposes and proper precautions and fences to prevent public trespass on to certain areas where impounded water may create hazardous conditions. These plans would reduce this impact to a level that is less than significant.

e) *No Impact*. The project would not involve the use of septic tanks. All wastewater is proposed to be conveyed off-site via connections to the public sanitary sewer system. No mitigation measures are necessary.

Mitigation Measure(s): None required

VII. GREENHOUSE GAS EMISSIONS –Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Responses:

a)- b) *Less Than Significant Impact.* A Greenhouse Gas Assessment was prepared by RBF Consulting dated April 26, 2012. The purpose of the Assessment was to evaluate potential stationary and mobile Green House Gas (GHG) emissions and impacts resulting from implementation of the project. GHG emissions have been identified as the key reason for climate change within the last several decades. Many scientists believe that this "Green House" affect resulting from the increase of GHG emissions has led to abnormal weather conditions. To address the impacts of climate change, legislation at the Federal and State levels have been enacted with the goal of reducing stationary and mobile source GHG emissions thereby reducing the potential for further climate change. State GHG legislation has established a goal for reduction of GHG emissions over time. The study reviewed the project's construction and operational GHG emissions to determine if there will be potentially significant impacts from such emissions.

The project's "business as usual" GHG emissions were calculated for the project. "Business as usual" refers to emissions that would be expected to occur in the absence of GHG reduction measures. The proposed "business as usual" GHG emissions include operation of the proposed project and forecast trip generation, as well as the GHG emissions from project construction. The California Emissions Estimator Model (CalEEMod) computer model and outputs contained within the Modeling Data were used to calculate direct and indirect project-related GHG emissions. Table 1, (of the report) *Business As Usual Greenhouse Gas Emissions*, presents the estimated CO_2, N_2O, and Ch_4

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

emissions.

Direct Project-Related Sources of Greenhouse Gases

Construction

Project construction activities would generate approximately 742.27 Metric Tons of Carbon Dioxide Equivalents ($MTCO_2eq$). Construction GHG emissions are typically summed and amortized over the lifetime of the project (assumed to be 30 years), then added to the operation emissions. Construction GHG emissions have been amortized, and would result in 24.74 $MTCO_2eq/yr$, which are added to the total operational GHG emissions.

Mobile Source

The CalEEMod model relies upon project specific land use data to calculate mobile source emissions. The project would directly result in 1,694.24 MTCO2eq/yr of mobile source-generated GHG emissions.

Indirect Project Related Sources of Greenhouse Gases

Energy Consumption.

Energy Consumption emissions were calculated using the CalEEMode model and project specific land use data. Electricity would be provided to the project site via Southern California Edison. The project would indirectly result in 371.42 $MTCO_2eq/yr$ due to energy consumption.

Water Demand.

The project's water supply would be provided by groundwater and imported sources. The estimated waster demand for the proposed project is approximately 16 million gallons of water per year. Emissions from indirect energy impacts due to water supply would result in 65.78 $MTCO_2eq/yr$.

Solid Waste.

The project is anticipated to generate approximately 79 tons of solid waste per year. Solid waste associated with operations of the proposed project would result in 35.83 $MTCO_2eq/yr$.

Total Project-Related Sources of Greenhouse Gases.

The report concluded that the total amount of project-related "business as usual" GHG emissions from direct and indirect sources combined would total 2,192.01 $MTCO_2eq/yr$.

Consistency With the California Attorney General's Mitigation Measures

The proposed project would incorporate several design features that are consistent with the California Office of the Attorney General recommended measures to reduce GHG emissions. These measures address Energy Efficiency, Renewable Energy and Energy Storage, Water Conservation and Efficiency, Solid Waste Measures, and Land Use Measures. The Attorney General's recommended measures and the proposed project's compliance with each applicable measure are listed in Table 2. Project Consistency with the Attorney General's Recommendations of the report. The proposed project would incorporate sustainable practices which include transportation, water, energy, and land use efficiency measures.

Project Design Features

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

The project's "business as usual" GHG emissions would not exceed the 3,000 $MTCO_2eq/yr$ threshold established by SCAQMD and accepted by the State. However, the project proposes to incorporate several project design features which would result in GHG emissions reductions. These reduction measures were applied to the project-related GHG emissions using the CalEEMod model. Table 3, *Reduced Greenhouse Gas Emissions*, of the report shows the reduced GHG emission associated with the project design features regarding transportation, energy, and water efficiency measures that can be accounted for in CalEEMod. It is noted that several of the project design features (e.g., use of non-wood alternatives for exposed wood products, use of locally manufactured products, permeable exterior paving surfaces, green-screen walls systems, living green walls, and high reflective roof materials) are not able to be accounted for in CalEEMod. It is also noted that although the project intends to accommodate photovoltaic panels, the exact amount of energy the panels would offset is unknown at this time; this analysis has not assumed a GHG reduction for photovoltaic panels. As presented in Table 3, of the report, with the incorporation of project design features, GHG emissions would be reduced by 582.83 $MTCO_2eq/yr$, for a resultant total of 1,609.18 $MTCO_2eq/yr$.

Conclusion

The "business as usual" emissions would be 2,192.01 $MTCO_2se/yr$, which are below the 3,000 $MTCO_2eq/yr$ GHG significance threshold. The project proposes to implement project design features related to transportation, water, energy, solid waste, and land use measures which are consistent with the Attorney General's recommended design features. Implementation of project design features would further reduce GHG emissions by 582.83 $MTCO_2eq/yr$. Therefore, a less than significant impact would occur with regards to GHG emissions and no mitigation measures are required.

The City does not currently have an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Therefore, the proposed project would not conflict with an adopted plan, policy, or regulation pertaining to GHGs. Thus a less than significant impact would occur in this regard.

In sum, in the absence of established quantitative thresholds to evaluate impacts associated with greenhouse gas emissions, consistency with adopted programs and policies to reduce greenhouse gas emissions has been suggested as a method to qualitatively evaluate the significant of cumulative impacts. A project's consistency with implementing programs and regulations to achieve statewide greenhouse gas emissions reduction goals established under AB 32 cannot be evaluated because they are still under development. Although the City does not currently have a Climate Action Plan, the City does have standard code required conditions of approval to help reduce greenhouse gas emissions and the project will be subject to the City's Mandatory Green Building Program and Solar Photovoltaic Requirement. The project will also meet the design standards of the U.S. Green Building Council (USGBC)'s and equivalent Leadership in Energy Environmental Design (LEED).

Mitigation Measure(s): None required

VIII. HAZARDS AND HAZARDOUS MATERIALS --Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

Responses:

a) *Less Than Significant Impact.* Operationally as a multi-use commercial development, the project is not expected to involve the routine use, transport or disposal of hazardous materials. During demolition and construction there will be potentially hazardous materials either on-site or transported to and from the site. This is further discussed below.

b) *Potentially Significant Impact Unless Mitigation Incorporated.* A Phase I Environmental Site Assessment (ESA) report was prepared April, 2005 in anticipation of a proposed development that never occurred. An expanded more current Phase I ESA was performed in November of 2010. Several storage tanks used by the former auto dealerships for storage of motor oil were identified. Nine of these tanks were above ground and were removed; one remains due to its attachment to an existing retaining wall. Three underground storage tanks (UST) located on the site were removed in 1997 and hydrocarbon impacted soil was found at each the UST locations. As a result Leaking Underground Storage Tank cases were opened with the Los Angeles County Public Works Department (LACPWD) in order to address remediation of the contaminated soil. Several soil samples were obtained through soil boring procedures and contaminant levels were measured against thresholds of significance for determining the potential health hazards of such contamination levels. After review by LACPWD and remediation, contaminant levels of soils around the three UST sites were found to be below levels of significance as established by the County. In 2008 one of the UST cases was closed and the other two cases were closed in December 2011 and January of 2012. Additionally, hydraulic lifts were removed and over-excavated to ensure contaminated soil near the lifts would be removed.

Due to the age of the structures there is a possibility that during demolition and construction of the site asbestos will be encountered. The most likely sources of hazardous materials during construction will be asbestos and mitigation will be included that an asbestos and lead survey be submitted to the Planning Division and Building Safety Division for review prior to demolition permits being issued.

c) *Less Than Significant Impact.* . A private school is located less than one quarter mile of the project site. As a commercial development, hazardous materials are not expected to be used in connection with the new project. However, during construction there is a potential for disturbance of asbestos or lead paints in building materials to occur, especially during demolition; Hauling away of asbestos will potentially result in the transport of hazardous materials during construction. Mitigation as noted above will reduce the significance of potential impacts to a level that is less than significant.

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

d) *Less Than Significant Impact*. Other than the storage tanks already discussed above the 2010 Phase I report did not indicate the site was on a list of hazardous materials sites.

e)- f) *No Impact.* The proposed project is not located within two miles of any public or private airstrip that would result in a safety hazard for people residing or working in the project area. The nearest airports to the project site are the Los Angeles International Airport (LAX), located approximately five miles south of the project site and the Santa Monica Airport located approximately three and half miles northwest of the site. Therefore, impacts are expected to be less than significant. There are no private airstrips within the project vicinity. No mitigation measures are necessary.

g) *Less Than Significant Impact.* The proposed project would have no long-term effect on any emergency response or emergency evacuation plan or procedures. Emergency evacuation routes could be affected during construction however, temporary street or lane closures will be required to meet standard City conditions to prepare and implement traffic control plans to ensure that construction does not obstruct emergency access. No mitigation measures are necessary.

h) *Less Than Significant Impact*. The project site currently is developed with buildings, paved surface parking, parking structures, and surrounding properties are located in an area with urban uses. There are no wildlands on the project site or in the immediate vicinity of the site. Furthermore, the proposed project would adhere to applicable fire suppression regulations. Therefore, the proposed project would not expose people or structures to a significant risk of loss, injury or death involving wildfires. No impact would occur.

Mitigation Measure(s):

HM 1: Prior to the issuance of a demolition permit, an asbestos and lead survey shall be submitted to the Planning Division and Building Safety Division for review. The survey shall indicate the requirements on remediating the site and precautions taken during demolition and transport of hazardous materials according to the state regulations and Asbestos Hazard Emergency Response Act (AHERA).

IX. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Responses:

a) *Less Than Significant Impact.* During excavation and construction, erosion and siltation could occur resulting in water pollution and a violation of Regional Water Quality Control Board standards if proper steps are not implemented. Standard code requirements and conditions of approval to the project requires the preparation of erosion/sediment control plans such as the Local Storm Water Pollution Prevention Plan (LSWPPP) and Standard Urban Storm Water Mitigation Plan (SUSMP), to regulate and control pollutant run-off by using Best Management Practices (BMP's) in accordance with National Pollutant Discharge Elimination System (NPDES). These plans shall show all temporary and permanent erosion control devices, effective planting of graded slopes, practical accessibility for maintenance purposes and proper precautions and fences to prevent public trespass on to certain areas where impounded water may create hazardous conditions. City and State standard code requirements and site design elements would reduce this potential impact to a level that is less than significant. No mitigation measures are necessary.

b) *Less Than Significant Impact.* Water service to the City is provided by the Golden State Water Company which contracts with the Metropolitan Water District for its supply. There are no water wells within the City and the project does not require the installation of wells for water service. The existing project site is comprised of two paved surface parking lots and several commercial buildings. The amount of storm water runoff percolated on this site is insignificant. Development of the project will require the installation of landscaped areas that will percolate and filter the first ¾ inch of rain fall. No mitigation measures are necessary.

c) *Less Than Significant Impact*. Grading in connection with the project would result in insignificant changes to existing drainage patterns. Grading and building plans will be reviewed by the City's Engineering Division to ensure that grading and drainage would be done in manner that does not cause substantial erosion, siltation or flooding. No mitigation measures are necessary.

d) *Less Than Significant Impact.* Standard code requirements and conditions of approval to the project requires the preparation of erosion/sediment control plans such as the Local Storm Water Pollution Prevention Plan (LSWPPP) and Standard Urban Storm Water Mitigation Plan (SUSMP), to regulate and control pollutant run-off by using Best Management Practices (BMP's) in accordance with National Pollutant Discharge Elimination System (NPDES). The construction of the proposed commercial development would not result in a significant increase in runoff during storm events. There are no streams or rivers on or adjacent to the site. Standard City and State code requirements for stormwater runoff and drainage as described in the sections above would substantially reduce this impact to a level that is less than significant.

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

e)- f) *Less Than Significant Impact*. See Sections VIII. a)- d), above. The project would be expected to result in an insignificant increase in runoff, which would be conveyed to public storm drains by required drainage improvements. Also, there are no other known impacts to water quality. No mitigation measures are necessary.

g)- h) *No Impact*. The site is not within a 100-year flood hazard area. No mitigation measures are necessary.

i) *Less Than Significant Impact*. The site is not located within a dam inundation zone and impacts associated with exposing people or structures to significant risk as a result of dam failure are less than significant.

j) *No Impact*. Inundation by seiche, tsunami, or mudflow is highly unlikely as the site is not near any inland body of water and is located in a relatively flat plane where mudflows would not occur. No mitigation measures are necessary.

Mitigation Measure(s): None required

X. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?	☐	☐	☒	☐
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Responses:

a) *Less Than Significant Impact*. The project would not physically divide an established community as the proposed commercial uses are similar to the existing adjacent and nearby commercial uses. Further the project will not require that streets connecting existing commercial areas be vacated or closed off.

b) *Less Than Significant Impact*. The General Plan Land Use Element designates the property as General Corridor which is a commercial designation. The property is presently zoned Industrial General but after entitlement approvals including a Comprehensive Plan and a Zone Change from Industrial General (IG) to Planned Development (PD) zone, the project will be allowed to be developed as a multi-use commercial complex containing retail, office, restaurant, and an open courtyard and paseo areas. These uses are more consistent with the site's general plan designation than with the current industrial zoning. The general plan guides the zoning and this project will facilitate greater compliance with the site's General Plan commercial designation that encourages retail, office, restaurant, and open space in such areas. The application does not include any variance or request to amend the General Plan designation.

Due to its close proximity to the Exposition Light Rail Transit line and station, the project is a critical component to the successful formation of the City's Transit Oriented Development (TOD) area which comprises several commercial properties near and adjacent to the Expo Light Rail Transit line and station. This site along with two other key sites within the TOD area (the Legado Crossings mixed use project and the Washington National triangle site mixed use/hotel/open space project) will offer food, retail, office, and public open space opportunities that will be accessed through multi-modal methods. Bike lanes, enhanced sidewalks, existing public transportation, a potential shuttle connecting the TOD area with Downtown Culver City, the Helms retail area, and the Hayden office/light industrial area will enhance the interconnectivity of the project site and further the City's goal of balanced growth and the objective of mutually compatible land use development.

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

Offsite improvements including bike lanes, new curb, gutter, sidewalk, street furniture and street trees, and new crosswalks on Washington Boulevard and Landmark Street will further a key objective of the City's Bicycle and Pedestrian Master Plan that calls for making streets more amenable and inviting to pedestrians and bicyclists.

c) *No Impact*. The site is not located within a Natural Community Conservation Plan area or other habitat conservation plan area. No mitigation measures are required.

Mitigation Measure(s): None required

XI. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Responses:

a)- b) *No Impact*. The project site and its surrounding area are currently developed with residential and commercial urban uses. Current site conditions indicate that there are no mineral resources on or within the project site and no locally important mineral resource recovery areas located in the project area. Therefore, project implementation would not result in impacts associated with the loss or availability of a known mineral resource that would be of value to the region and the residents of the state. No mitigation measures are necessary.

Mitigation Measure(s): None required

XII. NOISE --Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

Responses:

a)- d) *Less Than Significant Impact*. There are two potential sources of concern regarding noise: 1) noise generated on adjacent properties during construction and 2) noise impacts caused by the additional traffic generated by future occupants of the proposed project

A short-term noise increase during construction would be expected to occur from the use and transport of heavy constructed equipment. However, pursuant to the City's standard condition of approval, construction shall be limited to the hours of 8:00 a.m. to 8:00 p.m. Monday through Friday, 9:00 a.m. through 7:00 p.m. on Saturday, and 10:00 a.m. through 7:00 p.m. on Sundays and national holidays. Dirt hauling and construction material deliveries or removal are prohibited during the peak traffic periods; morning (7:00 a.m. to 9:00 a.m.) and afternoon (4:00 p.m. to 6:00 p.m.). This standard condition of approval limiting the hours on construction activity would reduce potential impact from construction noise to a level that is less than significant.

A short-term increase in groundborne vibration and noise would be expected to occur during grading and construction. The size of the project and limitations on allowable hours of construction found in the City's Municipal Code as well as conditions of approval for the project would reduce this impact to a level that is less than significant.

The increases in traffic on surrounding streets would not generate a significant increase in noise levels. The project site is located in an area consisting of commercial uses, a nearby freeway, and is located on a high traffic volume boulevard. Operational noise levels would result from vehicles entering and exiting the site and from noise normally generated by commercial uses. These types of noise levels are consistent with existing surrounding ambient noise caused by existing commercial uses and noise attributed to operational activities is not expected to be significant. Further the area is already characterized by noise consistent with major arterials that experience high traffic volumes, commercial and light industrial uses each generating their own noise levels, and the noise generated by the light rail line. Noise levels are consistent with developed urban areas and this project will be complimentary to such development. No mitigation measures are necessary.

e)- f) *No Impact*. The site is not located near an airport flight path and there are no private airstrips within the vicinity of the site. The nearest airports to the project site are the Los Angeles International Airport (LAX), located approximately five miles south of the project site and the Santa Monica Airport located approximately three and half miles northwest of the site. No mitigation measures are necessary.

Mitigation Measure(s): None required

XIII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Responses:

a) *Less Than Significant Impact.* The Planned Development zone for this project will not include housing as one of the allowed uses and no housing is proposed; however the project may result in a marginal increase in population

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

because it will provide for new job opportunities that may result in new employees moving into the City. However this population increase, if it occurs, is expected to be within growth scenarios for the City. Also with approximate development of 265 dwelling units in the TOD area, housing and residential related services will be available to serve this potential population increase.

b)- c) *No Impact* The project is a proposed commercial development with no residential uses. The propose use will serve commercial retail and office users and there will be no demolition of residential uses or displacement of people. No significant reduction or displacement of population or housing is associated with the project.

Mitigation Measure(s): None required

XIV. PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☐	☒

Responses:

a) & b) Fire and Police protection

Less Than Significant Impact. The Culver City Fire Department (CCFD) maintains three stations and the closest station to the proposed site is Station No. 1 located approximately ½ mile west of the site. The proposed project will be conducted and operated in accordance with the latest CCFD codes and guidelines for construction, access, water, fire flows and hydrants. Standard conditions regarding street improvements require the preparation and implementation of traffic control plans to ensure that construction does not obstruct emergency access.

The Culver City Police Department (CCPD) is located approximately less than one mile southwest of the project site. According to the CCPD, the emergency response time anywhere in the City for a top priority emergency is three minutes or less.

Currently the project site contains vacant buildings and is a venue for periodic temporary uses and special events. Although the proposed project will result in a total of 41,253 square feet of retail and restaurant uses and 38,120 square feet office use, the site currently generates Fire and Police services as needed. The increased commercial square footage is not expected to result in a substantial increase in Fire and Police services. Neither the Fire Department nor the Police Department during the internal review of the project identified impacts to their response times as noted above; further they did not identify impacts to their ability to provide adequate services.

Implementation of standard Fire Department related requirements will address potential impacts and the inclusion of security measures such as 24-hour on-site security, on-site exterior lighting, and alarm systems will assist in deterring potential criminal activity. Additionally the project is within the expected development envelope for the TOD area and is no greater than what is anticipated for this land use. Fire and Police comments did not indicate that this project was beyond their scope of services as would be expected along this commercial area.

c) Schools

Less Than Significant Impact.
As a proposed commercial office and retail use with no residential component the project is not expected to generate

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

a substantial population increase that would necessitate additional school services. Further, the Culver City Unified School District (CCUSD), in accordance with California Government Code Section 53080 and 65995, collects statutory developer fees prior to the issuance of a building permit. CCUSD determines the use of these funds which can include construction or reconstruction of school facilities. The office project will not result in significant adverse impacts relative to schools because it is not expected to generate a substantial population increase and payment of the school fees by the applicant, in accordance with State law, would offset impacts to school services. No mitigation measures are necessary.

d) Parks

Less Than Significant Impact. The use of the existing neighborhood and regional parks is not expected to substantially increase due to the project's proposed 41,253 square feet of retail and restaurant uses, 38,120 square feet office use, and a 7,000 square foot open courtyard as well outdoor dining areas and some office patio areas. The project does not have a residential component and is not subject to in-lieu parkland fees. The project will not require new construction or expansion of parks facilities and with the on-site open areas it will provide for employees and patrons; potential impacts to the park system will further be lessened.

e) Other Public Facilities

No Impact. Other facilities have not been identified that could be impacted by the project. No mitigation measures are necessary.

Mitigation Measure(s): None required

XV. RECREATION --

a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

Responses:

a)-b) *Less Than Significant Impact*.
As stated above in Section XIV- Parks, the use of the existing neighborhood and regional parks is not expected to substantially increase with this project that will provide substantial on-site open space for both employees and patrons. The project will not require new construction or expansion of parks or recreational facilities. Overall, the project will not result in significant adverse impacts relative to recreation because it is not expected to generate a substantial demand for park uses. No mitigation mea6sures are necessary.

Mitigation Measure(s): None required

XVI. TRANSPORTATION/TRAFFIC -- Would the project:

a)	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulating system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass	☐	☒	☐	☐

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
transit?				
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☒	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Responses:

a).and b). *Potentially Significant Impact Unless Mitigation Incorporated.* A traffic study prepared for the proposed mixed-use project, dated July 11, 2011, and supplemented on March 5, 2012, by Raju Associates Inc. was reviewed and accepted by the City's Traffic Engineer. Parking, access and circulation systems were assessed as part of the study. A review of the proposed site plan was also conducted. This review indicates that they would all function adequately and that there would not be adverse impact from the proposed project.

Based on the Institute of Traffic Engineers (ITE) Trip Generation Manual, 8th edition, the traffic analysis estimated that the project would generate 2,173 net new daily vehicle trips, including 101 net trips during the AM peak hour, and 187 net trips during the PM peak hour. The estimated trip generation of the proposed project includes adjustments due to its proximity to the Expo LRT and as well other standard credits that the City applies for commercial uses such as internal capture and pass-by trips. It is noted that the project did not take credit for existing use trip reduction credit because of the amount of time the prior use (car dealership) was vacant.

The traffic analysis evaluated the existing (year 2011) and forecast future (year 2014) conditions (future conditions with and without the proposed project) at thirty-four (34) intersections in the vicinity of the project site during both the AM and PM peak hours. Of the 34 intersections, 17 are located within the City of Culver City and 17 intersections within City of Los Angeles.

In order to assess the potential impact of the proposed project on the local street system, and using the City's significance criteria, the traffic study compared the volume to capacity (V/C) ratio, which is a numerical measure of traffic congestion, at each study location to determine the incremental difference in V/C ratios caused by the proposed project. The "Critical Movement Analysis-Planning" method of intersection capacity analysis was used to determine the intersection V/C ratio and corresponding level of service (LOS), which is a letter-grade measure of traffic congestion, at each of the signalized intersections.

Currently, 24 of the 34 analyzed intersection locations are operating at acceptable levels of service (LOS) D or better during the morning peak hour. During the evening peak hour, 26 of the 34 analyzed intersections are operating at LOS D or better. The remaining intersections are operating at LOS E or F.

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

Using the threshold criteria for determining significance of impacts of a project at a specific location, the traffic analysis concluded one (1) out the thirty four (34) analyzed intersection locations would be impacted by traffic generated by the proposed project unless mitigation is incorporated. As a result of the traffic generated by the proposed project, during the evening peak hour, the Washington Boulevard/ National Boulevard intersection would exceed the threshold for significance impact by .003 or .3%, which is an extremely small amount and would not be noticeable to motorists. The traffic study concluded that there would not be a significant impact at any of the remaining the intersections studied.

In order to address the project's impact at the intersection of Washington Boulevard/National Boulevard, the project is required to contribute funds for 1) the study of and implementation of a shuttle system that would operate within proposed project's study area or 2) the implementation of Adaptive Traffic Control Systems (ATCS) at the intersection of Washington Boulevard/National Boulevard (see Mitigation Measure T1). Funding of a study and implementation of a shuttle service would improve traffic flow by reducing the amount of vehicles in the immediate area because of the use of the shuttle. Similarly, implementation of ATCS will improve traffic flow and reduce delays in the affected intersection through the use signal synchronization.

In addition to the thirty-four (34) study intersections, an investigation of potential project traffic impacts to eight (8) roadway segments adjacent to or near the project was conducted. There were minor increases in traffic volumes with the proposed project, none of which exceeded the threshold of significant impact on any of the residential street segments; therefore, no significant impacts would result on the residential streets.

Off-Site Improvements:

There will be off-site improvements as part of the proposed project. The proposed project will include various pedestrian and vehicular operational improvements at and near the adjacent signalized intersections of Washington Boulevard and Landmark Street. To improve access to the proposed project's facilities which are located off of Landmark Street, the proposed project shall be required to design and construct a westbound left-turn signal at the intersection of Washington Boulevard and Landmark Street and be responsible for all costs associated with the modification of the traffic signal. Additionally, the curb at the southwest corner and southeast corner of Landmark Street and Washington Boulevard will be reconstructed to provide a larger radius and minimize the impact of the existing acute angle experienced by motorists eastbound on Washington Boulevard turning onto Landmark Street. Each of the changes above will enhance ingress/egress for motorists on Landmark Street, in particular for larger trucks and emergency vehicle access.

Pedestrian related improvements include the requirement of widening the roadways provide sidewalks. The project is required to install a 5' wide sidewalk along both the project's frontage along Landmark Street. The sidewalk along Washington Boulevard will be reconstructed to provide a 10' wide sidewalk. Also at the Washington/Landmark signalized intersection, a new crosswalk across Washington Boulevard at the east side of the intersection will be installed (a crosswalk currently exists on the west side of the intersection). Other off-site improvements include streetscape enhancements such as new street trees and street furniture (i.e. benches, trash receptacles, bike racks, and a bus shelter) and installation of a bike lane along the project's street frontage.

c) *No Impact.* The project would have no effect on air traffic patterns.

d). *Less Than Significant Impact.* The proposed project will not substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections). Driveways located along Landmark Street would provide access to the Project's parking structures. One driveway would be located on the west side of the street providing access to the new 219- space parking structure (Building B). Three driveways would be located on the east side of the street, two driveways providing access to the existing 72-space parking structure (Building D) and the other driveway providing access to the loading/trash collection area. The existing driveways to the site along Washington Boulevard would be removed. Motorists entering and exiting the site's driveways are provided with adequate maneuvering and visibility. No stopping zones will be striped as necessary for improved driver visibility.

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

Adequate loading for the project is proposed on-site in two dedicated locations. The first loading area is located behind Building C and serves the main development site and is able to accommodate large trucks. The second loading area is located inside the new parking structure Building B and accommodates smaller, van size delivery trucks (e.g. UPS delivery trucks). Standard City code requires that any proposed on-street loading zone to be reviewed and approved by the City's Public Works Department to ensure no loading impacts will occur and that proper signing and hours of operation are in place.

The project will be required to improve the existing radius curb return at the southwest corner and southeast corner of Washington Boulevard and Landmark Street to provide safer vehicular turn movements. Additionally, to improve access to and from the project site, the project will be required to install a left-turn signal at the intersection of Washington Boulevard and Landmark Street (see below Mitigation Measure T2).

Implementation of these code requirements and site design elements would reduce any potential impacts below the level of significance. No mitigation measures are necessary.

e). The design and construction of the project will be required to incorporate all applicable City standards related to emergency access to ensure that the emergency access would be adequate. Therefore, implementation of the project will not result in any impacts.

f). *No Impact.* The proposed project will not conflict with any adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. The proposed project is consistent with the City's bicycle and pedestrian master plan by providing onsite, secured, bicycle racks and offsite bicycle racks. Also, a new bus shelter pursuant to the requirements and specifications of the City will be provided at the bus stop in front of the project site.

Mitigation Measure(s):

T1: *The Project shall contribute $50,000 towards a study and implementation of a shuttle system connecting the residential and commercial areas in Downtown Culver City and Hayden Tract areas to and from the Culver City Exposition Light Rail Transit (LRT) Station. This shuttle system will include shuttle buses with stops along Washington Boulevard. The schedules for these shuttles should be developed such that coordinated transfers to and from the LRT station at Culver City are achieved. These shuttles would operate at enhanced frequencies during the peak commuter time periods and provide fast, convenient, and efficient connections to the Metro Exposition LRT line.*

In the event that the proposed shuttle program has not progressed sufficiently to warrant study funding, the $50,000 contribution mentioned above shall be used as the project's fair share towards the design and implementation of Adaptive Traffic Control Systems (ATCS) at the intersection of Washington Boulevard/National Boulevard. This includes provision of ATCS- associated control PC hardware/software, if required.

T2: Additionally, to improve access to the proposed project's parking facilities along Landmark Street, the applicant of the proposed project shall be required to design, and construct the westbound left-turn signal at the intersection of Washington Boulevard and Landmark Street and be responsible for all costs associated with the modification of the traffic signal.

XVII. UTILITIES AND SERVICE SYSTEMS --Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Responses:

a),b),&e) *Less Than Significant Impact*. Culver City maintains its own sewage collection facilities within the City limits and contracts with the City of Los Angeles for treatment and disposal service. Treatment occurs at the Hyperion Treatment Plan, located southwest of the City which has sufficient capacity to serve the needs of the proposed project. Expansion of the existing facilities is not necessary. The proposed project will have less than significant impact to the waste water system.

c) *Less Than Significant Impact.* The City is primarily served by the Los Angeles County Storm Drainage System. The City currently maintains some of its own storm drains that connect to the County systems. The combined system is adequate to serve the proposed project.

d) *Less Than Significant Impact.* Water service for this project site is provided by the Golden State Water Company (GSWC) which contracts with the Metropolitan Water District for its supply. There are sufficient water supplies to the City to serve the proposed project. Expansion of the existing services is not necessary. The proposed project will have less than significant impacts to the water system.

f) *Less Than Significant Impact.* Solid waste from the proposed project area is disposed of at the Puente Hills landfill in the City of Industry. Other landfills available for City waste disposal include BKK Sanitary Landfill located in the City of West Covina and Bradley West Landfill located in the City of Sun Valley. The Municipal Code requires provision of trash containers for recyclable materials and yard waste to reduce solid waste generation. No mitigation measures are necessary.

g) *Less Than Significant Impact.* See Section XVI.f, above. The project could generate solid waste during construction. Standard conditions requiring the contractor to remove and dispose of waste in accordance with applicable statues and regulations would reduce this impact to a level that is less than significant. No mitigation measures are necessary.

Mitigation Measure(s): None required

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE –				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ('Cumulatively considerable' means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Responses:

a) *Less Than Significant Impact.* The proposed project will improve the project site which currently contains an underutilized structures periodically used for temporary and special events. The project site does not contain any threatened or endangered species or sensitive habitats. Therefore, the project will not degrade the quality of the environment or have any potential significant impacts to any plant or animal wildlife species.

b) *Less Than Significant Impact.* Any potential cumulative impacts will be substantially reduced to less than significant standards due to standard City code requirements and conditions of approval.

c) *Less Than Significant Impact.* The project will not result in significant environmental impacts from construction and operation of the project. Standard City code requirements will reduce any potential impacts to less than significant.

Mitigation Measure(s): None required

XVIII. EARLIER ANALYSES:

None

References Utilized:

1. Geotechnical Engineering Investigation prepared by Feffer Geological Consulting, Inc., November 5, 2010.
2. Greenhouse Gas Assessment prepared by RBF Consulting, April 26, 2012.
3. Expanded Phase I Environmental Site Assessment prepared by AECOM, November 2, 2010 and Phase I Environmental Site Assessment prepared by Citadel Environmental Services, April 28, 2005.
6. Traffic Study prepared by Raju and Associates Inc, July 2011 and Supplemental Update, March 2012.
7. Culver City Redevelopment Plan Amendment and Merger Program Subsequent Environmental Impact Report, November 16, 1998.
8. Culver City General Plan Update Program Environmental Impact Report, November 1995

MITIGATION MONITORING PROGRAM

The following environmental mitigation measures shall be incorporated into the project development as conditions of approval. The project applicant shall secure a signed verification for each of the mitigation measures which indicate that mitigation measures have been complied with and implemented, and fulfills the City environmental and other requirements (Public Resources Code Section 21081.6.). Final clearance shall require all applicable verification as included in the following table. The City of Culver City will have primary responsibility for monitoring and reporting the implementation of the mitigation measures unless otherwise indicated. The mitigation measures have been identified by impact category and numbered for ease of reference.

MITIGATION MONITORING PROGRAM
CP P-2012018; PD ZCMA P-2012020; MND P-2012019
August 22, 2012

MITIGATION MEASURE	Implementing Action, Condition or Mechanism	Method of Verification	Timing of Verification	Responsible Persons
Cultural Resources **CR-1:** *Prior to Building Permit issuance, a Phase 1 Archaeological/Paleontological Survey shall be completed and submitted to the Planning Division and Building Safety Division for review. If the Phase 1 Archaeological/Paleontological Survey indicates the presence of archaeological and/or paleontological resources, then an archaeological and/or paleontological professional(s), approved by the City, shall monitor all phases of the excavation for the project site. In the event that the Phase 1 Archaeological/Paleontological Survey determines that no such resources exist but undetected fossil resources and/or human remains, or other archaeological/paleontological resources are encountered during construction activities, work in that area must be halted, and both the City of Culver City and the coroner must be notified. Work will be halted in that area of the detected resource until the City of Culver City's archaeologist and paleontologist have been contacted to evaluate the resources and permission to commence work in that area has been given by the City of Culver City.*	Condition of Approval	Plan Check note and Field Inspection	Prior to Issuance of a Building Permit and On-Going during Construction	Building Safety Division and Building Safety Inspector
Hazardous Materials **HM-1:** *Prior to the issuance of a demolition permit, an asbestos and lead survey shall be submitted to the Planning Division and Building Safety Division for review. The survey shall indicate the requirements on remediating the site and precautions taken during demolition and transport of hazardous materials according to the state regulations and Asbestos Hazard Emergency Response Act (AHERA).*	Condition of Approval	Field Inspection	Prior to Issuance of a Demolition Permit	Building Safety Division and Building Safety Inspector

MITIGATION MONITORING PROGRAM

CP P-2012018; PD ZCMA P-2012020; MND P-2012019
August 22, 2012

MITIGATION MEASURE	Implementing Action, Condition or Mechanism	Method of Verification	Timing of Verification	Responsible Persons
T1: *The Project shall contribute $50,000 towards a study and implementation of a shuttle system connecting the residential and commercial areas in Downtown Culver City and Hayden Tract areas to and from the Culver City Exposition Light Rail Transit (LRT) Station. This shuttle system will include shuttle buses with stops along Washington Boulevard. The schedules for these shuttles should be developed such that coordinated transfers to and from the LRT station at Culver City are achieved. These shuttles would operate at enhanced frequencies during the peak commuter time periods and provide fast, convenient, and efficient connections to the Metro Exposition LRT line.* *In the event that the proposed shuttle program has not progressed sufficiently to warrant study funding, the $50,000 contribution mentioned above shall be used as the project's fair share towards the design and implementation of Adaptive Traffic Control Systems (ATCS) at the intersection of Washington Boulevard/National Boulevard. This includes provision of ATCS-associated control PC hardware/software, if required.*	Condition of Approval	Plan Check note, Field Inspection, Receipt of Funds	Prior to Issuance of Building Permit	Traffic Engineering / Public Works and Planning Division
T2: *Additionally, to improve access to the proposed project's parking facilities along Landmark Street, the applicant of the proposed project shall be required to design, and construct the westbound left-turn signal at the intersection of Washington Boulevard and Landmark Street and be responsible for all costs associated with the modification of the traffic signal.*	Condition of Approval	Plan Check note and Field Inspection	Prior to Issuance of Building Permit	Traffic Engineering/ Public Works and Planning Division

RAJU Associates, Inc.

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Pasadena, CA 91101
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MEMORANDUM

TO: Mr. Barry Kurtz, P.E., City of Culver City
CC: Mr. Joseph Miller, The Runyon Group

FROM: Srinath Raju, P.E.
Chris Munoz

SUBJECT: The Platform Project Updated Project Description
Comparison of Trip Generation Estimates

DATE: March 5, 2012 **REF:** RA340-1

This memorandum documents details of the updated project description including the new square-footages for the various uses at 8810 Washington Boulevard in the City of Culver City, CA and compares the trip generation of the Proposed Project evaluated in the July 2011 Traffic Study Final Report for the Platform at Culver Station Project with those of the updated Proposed Project on the same site.

BACKGROUND

A detailed and comprehensive traffic study was prepared for the mixed-use project located at 8810 Washington Boulevard by Raju Associates, Inc. in July 2011 that the City of Culver City had reviewed and approved. Since then, some modifications to the proposed project description have occurred. This memorandum details these changes and provides an assessment of the potential effects on trip generation and consequently, the traffic impacts detailed in the Original Traffic Study.

The Original Traffic Study, dated July 2011, had the following project components –

1. Office equivalent to 28,708 square feet.
2. Retail equivalent to 36,819 square feet and Restaurant equivalent to 12,257 square feet for a total of 49,076 square feet of retail and restaurant use.
3. Total Project of size 77,784 square feet.
4. Total off-street Parking of 279 spaces.

The Updated Project Description consists of the following component uses and elements –

1. Office equivalent to 38,120 square feet.
2. Retail equivalent to 31,059 square feet and Restaurant equivalent to 10,558 square feet for a total of 41,617 square feet of retail and restaurant use.
3. Total Project of size 79,737 square feet.
4. Total off-street Parking of 292 spaces.

The updated project description calls for 9,412 square feet of additional office in lieu of 7,459 square feet of retail and restaurant use. The overall project size proposed is 1,953 square feet more than that evaluated in the Original Traffic Study.

TRIP GENERATION COMPARISON

The Original Traffic Study uses and associated trip generation estimates are provided in Table 7 of the Final Report and enclosed for convenience in Attachment A of this memorandum. The updated Project Description uses and corresponding associated trip generation estimates are provided in Table 7 (Updated).

From Table 7 and Table 7 (Updated), the following observations can be made:

1. The Updated Proposed Project is estimated to generate a net additional 2,173 daily trips of which 101 trips (81 inbound and 20 outbound) would occur in the morning peak hour, and 187 trips (89 trips inbound and 98 trips outbound) would occur in the evening peak hour.

2. The Proposed Project evaluated in the Original July 2011 Raju Associates' Traffic Study was estimated to generate a net additional 2,357 daily trips of which 91 trips (71 inbound and 20 outbound) would occur in the morning peak hour, and 200 trips (100 inbound and 100 outbound) would occur in the evening peak hour.

3. A comparison of the two project scenarios indicates that the updated project description is estimated to result in 184 less daily trips, 10 additional morning peak hour trips and 13 less evening peak hour trips.

TRAFFIC IMPACTS EVALUATION

From the Original July 2011 Raju Traffic Study, it can be observed that there would be no residual significant traffic impacts at any of the 34 analyzed intersections in the study with the proposed project and mitigation measure (or alternate mitigation measure) discussed in the study. The traffic impact analyses table (Table 8) from the Original July 2011 Raju Traffic Study has been included in Attachment B, for evaluation purposes.

From Table 8, the following observations can be made:

1. The Original Traffic Study's Proposed Project would cause significant impact at the intersection of Washington Boulevard and National Boulevard during the evening peak hour, but with the proposed shuttle or advanced traffic signal synchronization alternative mitigation, there would be no residual significant impact at this location.
2. The updated project description is estimated to generate less trips in the PM peak hour (and daily conditions) than those evaluated in the study. Therefore, the conclusion of no residual significant impact with the updated proposed project and the same mitigation measure can be made.
3. During the morning peak hour, the updated proposed project would result in only 10 additional AM peak hour trips and an examination of the magnitude of traffic impacts at all the analysis locations reveals that, similar to the conclusions in the July 2011 Raju Traffic Study, there would be no significant impacts due to the updated proposed project during the AM peak hour, as well.
4. At the intersection of Washington Boulevard and National Boulevard, during the morning peak

hour, with the 10 additional project-only trips, the increase in volume to capacity ratio (V/C ratio) would be an additional 0.002 for a total V/C increase of 0.019. This would not create a significant impact in the morning peak hour at this location. Further, with the proposed mitigation or alternative mitigation noted above, the V/C increase would be much less than significance levels as shown in Table 8 of the Original Traffic Study Report. Therefore, there would be no change to the conclusions of the Original Traffic Study Report.

5. In conclusion, given that the updated proposed project trip generation is very similar to or lower than the proposed project trip generation in the July 2011 Raju Traffic Study, the same conclusions relative to no residual significant impacts during both the peak hours at all the analyzed intersection locations would hold and no further analysis would be necessary.

PARKING EVALUATION

The updated Proposed Project consists of 38,120 square feet of office use and 41,617 square feet of retail and restaurant use. Based on the City of Culver City Municipal Zoning Code, the updated Proposed Project would require 276 (office of 38,120/350 =109 spaces; retail/restaurant of 41,617/250 = 167 spaces) off-street parking spaces. The updated project description calls for provision of 292 parking spaces. Therefore, there would be adequate parking for the updated Proposed Project.

CONCLUSION

The updated Proposed Project (along with the mitigation measure or the alternate mitigation measure described in the July 2011 Raju Traffic Study) would not result in any residual significant impacts at any of the analysis locations. The updated parking provisions would also be adequate for the updated Proposed Project uses. The traffic impact analyses and conclusions in the July 2011 Traffic Study for the Platform at Culver Station Project, prepared by Raju Associates would hold true for the updated project description evaluated in this memorandum.

TABLE 7 (UPDATED)
ESTIMATED UPDATED PROJECT TRIP GENERATION

	Size	Daily	AM Peak Hour			PM Peak Hour		
			IN	OUT	TOTAL	IN	OUT	TOTAL
Proposed Project (Updated)								
Retail	31,059 s.f.	1,334	19	12	31	57	59	116
Restaurant	10,558 s.f.	950	5	4	9	53	26	79
Office	38,120 s.f.	635	77	10	87	10	47	57
Project Trip Generation Total		2,919	101	26	127	120	132	252
Transit Trip Use (7.5%) - Office		(48)	(6)	(1)	(7)	(1)	(4)	(5)
*Internal Capture (10%) Trip Credit		(287)	(10)	(2)	(12)	(12)	(13)	(25)
**Pass-By (20%) Trip Reduction - Retail/Restaurant		(411)	(4)	(3)	(7)	(18)	(17)	(35)
Project Trip Generation Net Total		2,173	81	20	101	89	98	187
Trip Rates [1]								
General Office (ITE Land Use 710)	Trips per 1,000 s.f.	[2]	88%	12%	[2]	17%	83%	1.49
Retail (ITE Land Use 820)	Trips per 1,000 s.f.	42.94	61%	39%	1.00	49%	51%	3.73
Restaurant (ITE Land Use 931)	Trips per 1,000 s.f.	89.95	50%	50%	0.81	67%	33%	7.49

* Internal capture credit taken after reduction of transit trips.
** Pass-by trip reduction taken after internal capture credits.

[1] *Trip Generation, An ITE Information Report* , 8th Edition, ITE 2008

[2] Daily and AM peak hour trip generation for office was calculated using the following formulas:

Daily: Ln(T) = 0.77 Ln(X) + 3.65
AM Peak Hour: Ln(T) = 0.80 Ln(X) + 1.55

Where:
Ln = Natural logarithm
T = Two-way volume of traffic (total trip-ends)
X = Area in 1,000 square feet gross floor area

ATTACHMENT A

TABLE 7
ESTIMATED PROJECT TRIP GENERATION

	Size	Daily	AM Peak Hour			PM Peak Hour		
			IN	OUT	TOTAL	IN	OUT	TOTAL
Proposed Project								
Retail	36,819 s.f.	1,581	23	14	37	67	70	137
Restaurant	12,257 s.f.	1,103	5	5	10	62	30	92
Office	28,708 s.f.	510	61	8	69	7	36	43
Project Trip Generation Total		3,194	89	27	116	136	136	272
Transit Trip Use (7.5%) - Office		(38)	(5)	(1)	(6)	(1)	(3)	(4)
*Internal Capture (10%) Trip Credit		(316)	(8)	(3)	(11)	(14)	(13)	(27)
**Pass-By (20%) Trip Reduction - Retail/Restaurant		(483)	(5)	(3)	(8)	(21)	(20)	(41)
Project Trip Generation Net Total		2,357	71	20	91	100	100	200
Trip Rates [1]								
General Office (ITE Land Use 710)	Trips per 1,000 s.f.	[2]	88%	12%	[2]	17%	83%	1.49
Retail (ITE Land Use 820)	Trips per 1,000 s.f.	42.94	61%	39%	1.00	49%	51%	3.73
Restaurant (ITE Land Use 931)	Trips per 1,000 s.f.	89.95	50%	50%	0.81	67%	33%	7.49

* Internal capture credit taken after reduction of transit trips.
** Pass-by trip reduction taken after internal capture credits.

[1] *Trip Generation, An ITE Information Report*, 8th Edition, ITE 2008

[2] Daily and AM peak hour trip generation for office was calculated using the following formulas:

Daily: Ln(T) = 0.77 Ln(X) + 3.65
AM Peak Hour: Ln(T) = 0.80 Ln(X) + 1.55

Where:
Ln = Natural logarithm
T = Two-way volume of traffic (total trip-ends)
X = Area in 1,000 square feet gross floor area

ATTACHMENT B

TABLE 8
SUMMARY OF INTERSECTION LEVEL OF SERVICE ANALYSIS - FUTURE CONDITIONS

Map #	INTERSECTION		Peak Hour	Cumulative (2014) Base Conditions V/C	Cumulative (2014) Base Conditions LOS	Cumulative (2014) Plus Project Conditions V/C	Cumulative (2014) Plus Project Conditions LOS	Increase in V/C	Significant Impact
1	Robertson Boulevard	Cattaraugus Avenue [1]	AM	0.948	E	0.949	E	0.001	No
			PM	0.933	E	0.936	E	0.003	No
2	Robertson Boulevard	I-10 WB Off-Ramp/Kincardine Avenue [1]	AM	0.797	C	0.801	D	0.004	No
			PM	0.809	D	0.815	D	0.006	No
3	Robertson Boulevard	National Boulevard [1]	AM	1.049	F	1.053	F	0.004	No
			PM	1.042	F	1.047	F	0.005	No
4	National Boulevard	I-10 Eastbound On-Ramp [1]	AM	0.415	A	0.415	A	0.000	No
			PM	0.454	A	0.457	A	0.003	No
5	Hughes Avenue	Venice Boulevard [1]	AM	0.841	D	0.843	D	0.002	No
			PM	0.767	C	0.771	C	0.004	No
6	Bagley Avenue	Venice Boulevard [1]	AM	0.789	C	0.791	C	0.002	No
			PM	0.763	C	0.767	C	0.004	No
7	Culver Boulevard	Venice Boulevard [1]	AM	0.849	D	0.852	D	0.003	No
			PM	0.957	E	0.961	E	0.004	No
8	Robertson Boulevard	Venice Boulevard [1]	AM	1.461	F	1.462	F	0.001	No
			PM	1.430	F	1.434	F	0.004	No
9	National Boulevard	Venice Boulevard [1]	AM	1.038	F	1.043	F	0.005	No
			PM	1.013	F	1.021	F	0.008	No
10	Helms Avenue	Venice Boulevard [1]	AM	0.527	A	0.528	A	0.001	No
			PM	0.515	A	0.517	A	0.002	No
11	Cattaraugus Avenue	Venice Boulevard [1]	AM	0.863	D	0.865	D	0.002	No
			PM	0.723	C	0.727	C	0.004	No

TABLE 8 (continued)
SUMMARY OF INTERSECTION LEVEL OF SERVICE ANALYSIS - FUTURE CONDITIONS

Map #	INTERSECTION		Peak Hour	Cumulative (2014) Base Conditions V/C	Cumulative (2014) Base Conditions LOS	Cumulative (2014) Plus Project Conditions V/C	Cumulative (2014) Plus Project Conditions LOS	Increase in V/C	Significant Impact
12	La Cienega Boulevard	Venice Boulevard [1,2]	AM	1.083	F	1.085	F	0.002	No
			PM	1.066	F	1.069	F	0.003	No
13	Hughes Avenue/Duquesne Avenue	Washington Boulevard	AM	0.641	B	0.641	B	0.000	No
			PM	0.653	B	0.654	B	0.001	No
14	Duquesne Avenue	Culver Boulevard	AM	0.760	C	0.762	C	0.002	No
			PM	0.886	D	0.891	D	0.005	No
15	Culver Boulevard	Washington Boulevard/Irving Place	AM	0.618	B	0.620	B	0.002	No
			PM	0.635	B	0.638	B	0.003	No
16	Main Street	Culver Boulevard	AM	0.581	A	0.582	A	0.001	No
			PM	0.613	B	0.613	B	0.000	No
17	Culver Boulevard	Washington Boulevard	AM	0.782	C	0.783	C	0.001	No
			PM	0.752	C	0.756	C	0.004	No
18	Robertson Boulevard/Higuera Street	Washington Boulevard	AM	0.975	E	0.990	E	0.015	No
			PM	0.816	D	0.847	D	0.031	No
19	Landmark Street	Washington Boulevard	AM	0.601	B	0.610	B	0.009	No
			PM	0.514	A	0.599	A	0.085	No
20	National Boulevard	Washington Boulevard	AM	0.946	E	0.963	E	0.017	No
			PM	0.925	E	0.947	E	0.022	**Yes**
						with Mitigation Measure [5]			
			AM			0.913	E	-0.033	No
			PM			0.897	D	-0.028	No
						with Mitigation Measure - Alternative [5]			
			AM			0.933	E	-0.013	No
			PM			0.917	E	-0.008	No

TABLE 8 (continued)
SUMMARY OF INTERSECTION LEVEL OF SERVICE ANALYSIS - FUTURE CONDITIONS

Map #	INTERSECTION		Peak Hour	Cumulative (2014) Base Conditions V/C	LOS	Cumulative (2014) Plus Project Conditions V/C	LOS	Increase in V/C	Significant Impact
21	Wesley Avenue	Washington Boulevard [3]	AM	134.9 sec	F	138.9 sec	F	0.005	No
			PM	484.0 sec	F	521.5 sec	F	0.008	No
			AM	0.768	[6]	0.773	[6]	-	-
			PM	0.781	[6]	0.789	[6]	-	-
22	Helms Avenue	Washington Boulevard	AM	0.563	A	0.568	A	0.005	No
			PM	0.503	A	0.509	A	0.006	No
23	Cattaraugus Avenue	Washington Boulevard [3]	AM	*** sec	F	*** sec	F	0.007	No
			PM	709.6 sec	F	778.5 sec	F	0.016	No
			AM	1.030	[6]	1.037	[6]	-	-
			PM	0.898	[6]	0.914	[6]	-	-
24	La Cienega Boulevard	Washington Boulevard	AM	1.199	F	1.203	F	0.004	No
			PM	0.990	E	0.996	E	0.006	No
25	La Cienega Boulevard	Fairfax Avenue [1]	AM	1.060	F	1.060	F	0.000	No
			PM	0.898	D	0.898	D	0.000	No
26	Wesley Street	National Boulevard	AM	0.710	C	0.715	C	0.005	No
			PM	0.472	A	0.479	A	0.007	No
27	Hayden Avenue	National Boulevard	AM	0.640	B	0.643	B	0.003	No
			PM	0.738	C	0.747	C	0.009	No
28	Jefferson Boulevard	National Boulevard [1]	AM	1.002	F	1.009	F	0.007	No
			PM	0.752	C	0.757	C	0.005	No
29	La Cienega Boulevard	Jefferson Boulevard [1,2]	AM	1.278	F	1.280	F	0.002	No
			PM	1.205	F	1.210	F	0.005	No
30	Jefferson Boulevard	Higuera Street/Rodeo Road [1]	AM	0.755	C	0.758	C	0.003	No
			PM	0.781	C	0.790	C	0.009	No

TABLE 8 (continued)
SUMMARY OF INTERSECTION LEVEL OF SERVICE ANALYSIS - FUTURE CONDITIONS

Map #	INTERSECTION		Peak Hour	Cumulative (2014) Base Conditions V/C	Cumulative (2014) Base Conditions LOS	Cumulative (2014) Plus Project Conditions V/C	Cumulative (2014) Plus Project Conditions LOS	Increase in V/C	Significant Impact
31	La Cienega Boulevard	Rodeo Road [1]	AM	1.217	F	1.219	F	0.002	No
			PM	1.248	F	1.251	F	0.003	No
32	Braddock Drive	Duquesne Avenue [4]	AM	227.9 sec	F	229.1 sec	F	0.001	No
			PM	158.5 sec	F	160.3 sec	F	0.003	No
			AM	1.185	[6]	1.186	[6]	-	-
			PM	1.325	[6]	1.328	[6]	-	-
33	Lucerne Avenue	Duquesne Avenue [4]	AM	51.7 sec	F	52.2 sec	F	0.002	No
			PM	66.8 sec	F	68.4 sec	F	0.005	No
			AM	0.939	[6]	0.941	[6]	-	-
			PM	1.052	[6]	1.057	[6]	-	-
34	Jefferson Boulevard	Duquesne Avenue	AM	1.211	F	1.215	F	0.004	No
			PM	1.030	F	1.034	F	0.004	No

*** Intersection delay cannot be calculated.
[1] City of Los Angeles location.
[2] Los Angeles County Congestion Management Program (CMP) monitoring location.
[3] Unsignalized intersections - stop-controlled on minor approach(es).
[4] Unsignalized intersections - stop-controlled on all approach.
[5] The Project requires only a small increment of V/C improvement to alleviate the significance of its impact (0.003 or 0.3% V/C improvement) during the PM peak hour. No significant impact occurs during the AM peak hour and therefore, no V/C improvement is required.
[6] V/C ratio was calculated, based on signalized LOS methodology, to determine project impacts.

TRAFFIC STUDY
FOR THE
PLATFORM AT CULVER STATION PROJECT



Prepared for:

THE RUNYON GROUP

July 2011

Submitted by :

RAJU Associates Inc

TRAFFIC STUDY
FOR THE
PLATFORM AT CULVER STATION PROJECT

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EXECUTIVE SUMMARY

A detailed traffic study was performed by Raju Associates, Inc. to assess the traffic impacts of the proposed Platform at Culver Station Mixed-Use Project within the City of Culver City, California. The Project is located at 8810-40-50 Washington Boulevard and 3920 Landmark Street.

The Project site occupies the southwest and southeast corners of the Landmark Street/Washington Boulevard intersection. The Proposed Project involves the construction of six buildings (two of the six buildings are parking structures) varying from one-story to four-stories. Only one building, a multi-level parking structure with ground floor retail, would be located on the southwest corner of the Landmark Street/Washington Boulevard intersection. The remaining five buildings would be located on the southeast corner of this intersection. As proposed, the Project would consist of 28,708 square feet of office use, 36,819 square feet of retail use, and 12,257 square feet of restaurant use. The Project would provide a 202-space multi-level parking structure (with ground floor retail) and a 77-space parking structure for an overall total supply of 279 parking spaces. Currently, the existing site includes a vacant car dealership.

Driveways located along Landmark Street would provide access to the Project's parking structures. One driveway would be located on the west side of the street providing access to the 202-space parking structure. Three driveways would be located on the east side of the street; two driveways providing access to the 77-space parking structure and the other driveway providing access to the loading/trash collection area. The existing driveways along Washington Boulevard to the site would be removed.

Current and future traffic analyses at 34 intersections within the Cities of Culver City and Los Angeles were conducted in this study. At these locations, traffic operations were studied prior to and after implementation of the Proposed Project; deficiencies and impacts, if any, identified; improvements and mitigation measures, if required, developed; their effectiveness determined and residual traffic impacts, if any, ascertained as part of this study. Access and circulation at the proposed driveways to the parking area for the Project were also evaluated. The following executive summary highlighting the key findings of this study is presented in the following page.

- Thirty-four intersections were analyzed within the study area for this project. These locations are within the study area bounded by Cattaraugus Avenue on the north, Jefferson Boulevard/Rodeo Road on the south, Hughes Avenue/Duquesne Avenue on the west and La Cienega Boulevard on the east. Of the 34 intersections, 17 intersections are located within the City of Culver City and 17 intersections within the City of Los Angeles.

- Currently, 24 of the 34 analyzed intersection locations are operating at acceptable levels of service (LOS) D or better during the morning peak hour. During the evening peak hour, 26 of the 34 analyzed intersections are operating at LOS D or better. The remaining intersections are operating at LOS E or F.

- In the Cumulative (Year 2014) Base conditions, i.e., future conditions without the implementation of the Proposed Project, 17 of the 34 analyzed intersection locations are projected to continue to operate at LOS D or better during the morning peak hour. During the evening peak hour, 19 of the 34 analyzed intersections are projected to operate at LOS D or better. The remaining intersections are projected to operate at LOS E or F.

- The Proposed Project would consist of 28,708 square feet of office use, 36,819 square feet of retail use, and 12,257 square feet of restaurant use. The Project is estimated to generate a net total of approximately 91 trips during the morning peak hour and 200 trips during the evening peak hour.

- In the Cumulative (Year 2014) plus Project conditions, both the AM and PM peak hour operating conditions would be similar to those projected for the Cumulative (2014) Base conditions.

- The Cumulative (Year 2014) plus Project conditions indicate that the Proposed Project would cause a significant traffic impact at the intersection of National Boulevard and Washington Boulevard during the evening peak hour. The Project's impact exceeds the threshold for significant impact by an incremental volume-to-capacity ratio of 0.003 or 0.3%. No significant impact would occur at any of the other analyzed intersections.

- In order to address the Project's impact at the intersection of National Boulevard/Washington Boulevard, the following mitigation measure is recommended:

  The Project shall contribute its fair share towards implementation of a shuttle system connecting the residential and commercial areas in Downtown Culver City and Hayden Tract areas to and from the Venice/Robertson Light Rail Train (LRT) Station on the Exposition Line. This shuttle system will include shuttle buses with stops along Washington Boulevard. The schedules for these shuttles should be developed such that coordinated transfers to and from the rail station at Venice/Robertson are achieved. These shuttles would operate at enhanced frequencies during the peak commuter time periods and provide fast, convenient, and efficient connections to the Metro Exposition LRT Line.

In event that the proposed shuttle program has not progressed sufficiently to warrant study funding, the following alternative mitigation measure shall be implemented:

The Project shall contribute its fair share towards the design and implementation of ATCS (Adaptive Traffic Control System) at the intersection of National Boulevard/Washington Boulevard. This includes provision of ATCS-associated signal equipment, additional loop detectors, communications set-up and the associated control PC hardware/software, if required.

Additionally, to improve access to the Proposed Project's parking facilities along Landmark Street, the applicant of the Proposed Project shall be required to design, and construct the westbound left-turn signal at the intersection of Washington Boulevard and Landmark Street and be responsible for all costs associated with the modification of the traffic signal.

- Parking, access and circulation systems were assessed as part of this study. A review of the proposed site plan was also conducted. This review indicates that they would all function adequately and that there would be no adverse impact from the Proposed Project.

I. INTRODUCTION

This report documents the assumptions, methodologies and findings of a study conducted by Raju Associates, Inc., to evaluate the potential traffic impacts of the proposed Platform at Culver Station Mixed-Use Project located at 8810-40-50 Washington Boulevard and 3920 Landmark Street within the City of Culver City, California.

PROJECT DESCRIPTION

The Proposed Project is located on the south side of Washington Boulevard between Robertson Boulevard-Higuera Street and National Boulevard. The Project site occupies the southwest and southeast corners of the Landmark Street/Washington Boulevard intersection. Figure 1 illustrates the location of the Proposed Project in relation to the surrounding street system.

The Proposed Project involves the construction of six buildings (two of the six buildings are parking structures) varying from one-story to four-stories. Only one building, a multi-level parking structure with ground floor retail, would be located on the southwest corner of the Landmark Street/Washington Boulevard intersection. The remaining five buildings would be located on the southeast corner of this intersection. As proposed, the Project would consist of 28,708 square feet of office use, 36,819 square feet of retail use, and 12,257 square feet of restaurant use. The Project would provide a 202-space multi-level parking structure (with ground floor retail) and a 77-space parking structure for an overall total supply of 279 parking spaces. Currently, the existing site includes a vacant car dealership.

Driveways located along Landmark Street would provide access to the Project's parking structures. One driveway would be located on the west side of the street providing access to the 202-space parking structure. Three driveways would be located on the east side of the street;



FIGURE 1
LOCATION OF PROJECT AND ANALYZED INTERSECTIONS

RAJU Associates, Inc.

two driveways providing access to the 77-space parking structure and the other driveway providing access to the loading/trash collection area. The existing driveways along Washington Boulevard to the site would be removed.

STUDY SCOPE

The scope of work for this study was developed in conjunction with the Cities of Culver City and Los Angeles staff. The base assumptions, technical methodologies and geographic coverage of the study were all identified as part of the study approach. The study is directed at the analysis of potential traffic impacts on the street system produced by the Proposed Project per the City of Culver City traffic impact significance criteria. For locations within the City of Los Angeles, the City of Los Angeles traffic impact significance criteria have been used. The scenarios identified on the following page have been evaluated in this study.

- Existing (2011) Conditions - The analysis of existing traffic conditions is intended to provide a basis for the remainder of the study. The existing conditions analysis includes an assessment of streets, traffic volumes, and operating conditions.

- Cumulative Base (2014) Conditions - Future traffic conditions without the proposed project has been developed for the year 2014. The objective of this analysis is to project future traffic growth and operating conditions, which could be expected to result from regional growth and related projects in the vicinity of the study area by the year 2014.

- Cumulative plus Project (2014) Conditions – The traffic expected to be generated by the proposed project is estimated and added to the Cumulative Base (2014) traffic forecasts. The impacts of the proposed project on future traffic operating conditions are then identified.

As part of this traffic study, a total of 34 intersections within two jurisdictions have been analyzed. A listing of these intersections including jurisdiction, control type, and signal control system is presented in Table 1 and their locations are illustrated in Figure 1. Thirty of the 34 analyzed intersections are signalized, while four intersections are stop-controlled. Of the 34 study locations, 17 intersections are in the City of Culver City, 16 intersections are in the City of Los Angeles, and one intersection is within the Cities of Culver City and Los Angeles. These study locations were coordinated with the affected jurisdictions as part of the scoping for the study and were analyzed for the scenarios described above.

TABLE 1
LIST OF STUDY INTERSECTIONS

#	Intersection		Jurisdiction	Signalized?	Signal System Control
	Northbound/Southbound	Eastbound/Westbound			
1.	Robertson Boulevard	Cattaraugus Avenue	City of Los Angeles	Yes	ATSAC/ATCS
2.	Robertson Boulevard	I-10 WB Off-Ramp/Kincardine Avenue	City of Los Angeles	Yes	ATSAC/ATCS
3.	Robertson Boulevard	National Boulevard	City of Los Angeles	Yes	ATSAC/ATCS
4.	National Boulevard	I-10 Eastbound On-Ramp	City of Los Angeles	Yes	ATSAC/ATCS
5.	Hughes Avenue	Venice Boulevard	City of Los Angeles	Yes	ATSAC
6.	Bagley Avenue	Venice Boulevard	City of Los Angeles	Yes	ATSAC
7.	Culver Boulevard	Venice Boulevard	City of Los Angeles	Yes	ATSAC/ATCS
8.	Robertson Boulevard	Venice Boulevard	City of Los Angeles	Yes	ATSAC/ATCS
9.	National Boulevard	Venice Boulevard	City of Los Angeles	Yes	ATSAC/ATCS
10.	Helms Avenue	Venice Boulevard	City of Los Angeles	Yes	ATSAC/ATCS
11.	Cattaraugus Avenue	Venice Boulevard	City of Los Angeles	Yes	ATSAC
12.	La Cienega Boulevard	Venice Boulevard [1]	City of Los Angeles	Yes	ATSAC/ATCS
13.	Hughes Avenue/Duquesne Avenue	Washington Boulevard	Culver City	Yes	ATSAC
14.	Duquesne Avenue	Culver Boulevard	Culver City	Yes	ATSAC
15.	Culver Boulevard	Washington Boulevard/Irving Place	Culver City	Yes	ATSAC
16.	Main Street	Culver Boulevard	Culver City	Yes	ATSAC
17.	Culver Boulevard	Washington Boulevard	Culver City	Yes	ATSAC
18.	Robertson Boulevard/Higuera Street	Washington Boulevard	Culver City	Yes	ATSAC
19.	Landmark Street	Washington Boulevard	Culver City	Yes	ATSAC
20.	National Boulevard	Washington Boulevard	Culver City	Yes	ATSAC
21.	Wesley Avenue	Washington Boulevard	Culver City	No	-
22.	Helms Avenue	Washington Boulevard	Culver City	Yes	ATSAC
23.	Cattaraugus Avenue	Washington Boulevard	Culver City	No	-
24.	La Cienega Boulevard	Washington Boulevard	Culver City	Yes	ATSAC
25.	La Cienega Boulevard	Fairfax Avenue [1]	City of Los Angeles/Culver City	Yes	ATSAC/ATCS
26.	Wesley Street	National Boulevard	Culver City	Yes	ATSAC
27.	Hayden Avenue	National Boulevard	Culver City	Yes	ATSAC
28.	Jefferson Boulevard	National Boulevard	City of Los Angeles	Yes	ATSAC/ATCS
29.	La Cienega Boulevard	Jefferson Boulevard [1]	City of Los Angeles	Yes	ATSAC/ATCS
30.	Jefferson Boulevard	Higuera Street/Rodeo Road	City of Los Angeles	Yes	ATSAC/ATCS
31.	La Cienega Boulevard	Rodeo Road	City of Los Angeles	Yes	ATSAC/ATCS
32.	Braddock Drive	Duquesne Avenue	Culver City	No	-
33.	Lucerne Avenue	Duquesne Avenue	Culver City	No	-
34.	Jefferson Boulevard	Duquesne Avenue	Culver City	Yes	ATSAC

[1] Los Angeles County Congestion Management Program monitoring location.

A detailed Memorandum of Understanding (MOU) was prepared in coordination with the City of Culver City staff. The MOU includes among other details, a description of the Proposed Project, its trip generation and distribution characteristics. A copy of the MOU is attached in Appendix A of this report.

ORGANIZATION OF REPORT

An executive summary presenting key details of the traffic study is provided at the beginning of this report. The rest of the report is divided into seven chapters. Chapter I presents an introduction and provides details of the various elements of the study. Chapter II describes the existing circulation system, traffic volumes, and traffic conditions within the study area. The methodology to obtain Future Year 2014 traffic volumes with and without the Proposed Project are described and applied in Chapter III. Chapter IV presents assessment of traffic conditions with and without the project and the potential traffic impacts due to the Proposed Project. Residential street segment analysis, parking, and access/circulation evaluations are presented in Chapter V. The results of the analysis of the Proposed Project's impacts on the Congestion Management Program (CMP) regional transportation system are provided in Chapter VI. A summary of the analysis and study conclusions are included in Chapter VII. Appendices to this report include details of the technical analysis.

II. EXISTING CONDITIONS

A comprehensive data collection effort was undertaken to develop a detailed description of existing conditions within the study area. The assessment of conditions relevant to this study includes an inventory of the street system, traffic volumes on these facilities, and operating conditions at key intersections. A detailed description of these elements is presented in this chapter.

STUDY AREA

The Project site is located on south side of Washington Boulevard between Robertson Boulevard-Higuera Street and National Boulevard. The Project site occupies the southwest and southeast corners of the Landmark Street/Washington Boulevard intersection. The San Diego (I-405) Freeway is located approximately two miles west of the Project site and the Santa Monica (I-10) Freeway is located less than a half mile north of the Project site. The study area is bounded by Cattaraugus Avenue on the north, Jefferson Boulevard/Rodeo Road on the south, Hughes Avenue/Duquesne Avenue on the west and La Cienega Boulevard on the east.

EXISTING STREET SYSTEM

The City of Culver City uses the following street classification designations: primary arterials, secondary arterials, and neighborhood feeder streets. The City of Los Angeles uses the following designations: major highways, secondary highways, collector streets, and local streets. The existing street system within the study area consists of a regional highway system including primary arterials/major highways east of the San Diego (I-405) Freeway and south of the Santa Monica (I-10) Freeway, and a sub-regional street system including secondary arterials/highways, and neighborhood feeder streets/collectors and local streets. A description of the regional and local access and circulation offered by the various roadways follows.

The San Diego (I-405) and Santa Monica (I-10) Freeways provide the primary regional access to the study area. The key arterials/highways serving the site are Venice Boulevard, National Boulevard, Washington Boulevard, Culver Boulevard, Duquesne Avenue, Robertson Boulevard, Higuera Street, Hayden Avenue, Fairfax Avenue, Rodeo Road, Jefferson Boulevard, and La Cienega Boulevard. The remaining neighborhood streets (collector and local streets) offer local circulation possibilities. Brief descriptions of these facilities serving the study area are included in the following section.

- Santa Monica (I-10) Freeway – The I-10 Freeway is an east-west freeway that transverses the Southern California region from its western terminus at Pacific Coast Highway in the City of Santa Monica into San Bernardino County and points east. Within the vicinity of the study area, this freeway generally provides four lanes in the westbound direction and four lanes in the eastbound direction. There are interchanges at Robertson Boulevard, National Boulevard, La Cienega Boulevard/Venice Boulevard and Washington Boulevard/Fairfax Avenue in the vicinity of the study area. This freeway provides access to the regional interstate system.

- San Diego (I-405) Freeway – The I-405 Freeway is a north-south freeway that transverses the Southern California region from its northern terminus at the I-5 Freeway in Sylmar to its southern terminus at the I-5 Freeway in Irvine. Within the vicinity of the study area, this freeway provides five lanes in the northbound direction and six lanes in the southbound direction (including one HOV lane north of SR-90). There are interchanges at Culver Boulevard and Venice Boulevard/Washington Boulevard in the vicinity of the study area. This freeway provides access to the regional interstate system.

- Venice Boulevard – Venice Boulevard is classified as a primary arterial/major highway, within the study area, and traverses in an east-west direction across several jurisdictions. Venice Boulevard generally offers six travel lanes, three lanes in each direction, with left-turn lanes at key intersections and a large raised median island. On-street parking is allowed on both sides of the street throughout the study area. Venice Boulevard provides access to the I-10 (Santa Monica) Freeway.

- Washington Boulevard – Washington Boulevard is classified as a primary arterial roadway within the City of Culver City and a major highway within the City of Los Angeles and defines the northern frontage of the Project site. Washington Boulevard traverses in an east-west direction across several jurisdictions and generally offers four travel lanes, two lanes per direction, with a central left-turn lane or median. On-street parking is generally allowed along this roadway in the vicinity of the study area.

- Culver Boulevard – Culver Boulevard is a primary arterial within the City of Culver City and a major highway within the City of Los Angeles and traverses diagonally in an east-west direction from Playa del Rey to its terminus at Venice Boulevard. Within the study area, this roadway offers four travel lanes, two lanes per direction, with a raised median and turn

lanes at major or key intersections. On-street parking is allowed along this roadway throughout the study area, except at major intersections where turn lanes are provided. Culver Boulevard currently provides access to the I-405 (San Diego) Freeway to and from the north.

- Jefferson Boulevard – Jefferson Boulevard is a primary arterial/major highway west of La Cienega Boulevard and traverses in an east-west direction. East of La Cienega Boulevard, Jefferson Boulevard is classified as a secondary highway. Within the study area, this roadway generally provides four travel lanes, two lanes in each direction with a central left-turn lane. On-street parking is generally allowed along this roadway.

- La Cienega Boulevard – La Cienega Boulevard is classified as a primary arterial/major highway and traverses in a north-south direction across several jurisdictions. This roadway offers six travel lanes, three lanes per direction, with a central left-turn median. There is no stopping at any time along the roadway within the study area. This roadway provides access to the I-10 (Santa Monica) Freeway, as well as, the I-405 (San Diego) Freeway to and from the south.

- Fairfax Avenue – Fairfax Avenue is a primary arterial/major highway that traverses in a north-south direction and offers four travel lanes, two lanes per direction, with left-turn lanes at key intersections. On-street parking is generally prohibited along this roadway within the study area. This roadway provides access to the I-10 (Santa Monica) Freeway.

- Rodeo Road – Rodeo Road is classified as a major highway and runs in an east-west direction across the City of Los Angeles. Within the study area, this roadway generally provides six travel lanes during peak commute hours, three lanes in each direction, with a central left-turn median. Restricted on-street parking is generally allowed along this roadway.

- Robertson Boulevard – Within the City of Los Angeles, Robertson Boulevard is classified as a secondary highway. Within Culver City, south of Venice Boulevard, Robertson Boulevard is classified as a primary arterial. This roadway runs in a north-south direction and generally provides four travels lanes, two lanes in each direction. On-street parking is allowed on both sides of the streets within the study area. Some segments of Robertson Boulevard have parking prohibitions and/or restrictions on one or both sides of the street. Robertson Boulevard provides access to the I-10 (Santa Monica) Freeway.

- National Boulevard – National Boulevard is a secondary arterial/highway that runs in an east-west direction. It generally offers two lanes in the each direction and provides connection to the I-10 (Santa Monica) Freeway north of the Project site. On-street parking is available along many stretches of this roadway, generally, except at major intersections where turn lanes are provided.

- Duquesne Avenue – Duquesne Avenue is a secondary arterial roadway that traverses in a north-south direction. Within the study area, this roadway offers two travel lanes, one lane per direction. On-street parking is generally allowed on both sides of the street.

- Hayden Avenue – Hayden Avenue is a secondary arterial that traverses in a north-south direction. This roadway offers two travel lanes, one lane in each direction. Between National Boulevard and Higuera Street, on-street parking is generally prohibited or restricted.

- Higuera Street – Higuera Street is classified as a secondary arterial between Hayden Avenue and Jefferson Boulevard and provides four travel lanes, two lanes in each direction. Between Washington Boulevard and Hayden Avenue, Higuera Street is classified as a neighborhood feeder street and provides two travel lanes, one lane per direction. On-street parking is generally allowed along many stretches of this roadway. At the intersection of Hayden Avenue-Hayden Place/Higuera Street, a raised median barrier has been placed to prevent eastbound and westbound through traffic movements. All traffic in either direction along Higuera Street must turn onto Hayden Avenue or Hayden Place.

- Hughes Avenue – Hughes Avenue is classified as a collector street and traverses in a north-south direction. Within the study area, this roadway provides two travel lanes, with one lane in each direction. On-street parking is generally allowed along this roadway throughout the study area. Between Venice Boulevard and Washington Boulevard, on-street parking is prohibited.

- Wesley Street – Wesley Street is a discontinuous local roadway that runs in a north–south direction. One segment of Wesley Street extends south from Washington Boulevard, terminating in a cul-de-sac. The other segment of Wesley Street connects National Boulevard to Higuera Street. This roadway provides two travel lanes, one lane per direction. On-street parking is generally allowed along this roadway within the study area.

- Irving Place – Irving Place is a local roadway that traverses in a north-south direction. North of 'A' Street, the roadway provides one travel lane per direction with metered parking on both sides of the street. South of 'A' Street to its terminus at Lucerne Avenue, the roadway provides one-way northbound circulation. Parking is generally allowed on both sides of the street along this segment.

- Braddock Drive – Braddock Avenue is a neighborhood feeder street that runs in a northwest to southeast direction. It provides two travel lanes, one lane per direction. On-street parking is generally allowed on the south side of the street within the study area.

- Landmark Street – Landmark Street is a local roadway that traverses in a north-south direction and provides direct access to the Project site. This roadway offers two travel lanes, one lane in each direction, and it is undivided. On-street parking is allowed along this roadway.

- Cattaraugus Avenue – Cattaraugus Avenue is classified as a local roadway within the City of Culver City and is classified as a collector street within the City of Los Angeles. This roadway traverses in a north-south direction and generally offers two travel lanes, with one lane per direction. On-street parking is generally allowed along this roadway.

- Lucerne Avenue - Lucerne Avenue is a neighborhood feeder street that runs in a northwest to southeast direction. It provides two travel lanes, one lane per direction. On-street parking is generally allowed on the south side of the street within the study area.

The existing lane configurations of the analyzed intersections are included in Appendix B.

EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

The following sections present the existing intersection peak hour traffic volumes, a description of the methodology utilized to analyze the intersection operating conditions, and the resulting level of service conditions at each of the study intersections.

Existing Traffic Volumes

Weekday morning (7:00 to 9:00 AM) and evening (4:00 to 6:00 PM) peak hour traffic counts were compiled from data collected at the 34 analyzed intersections between September 2008 and March 2011. Due to the Metro Exposition Light Rail Project construction occurring at and affecting the lane geometry at many of analyzed intersections consequently altering traffic patterns within the study area, traffic counts collected prior to the construction were utilized in this analysis. All traffic counts collected prior to 2011 were factored upward 1% per year (compounded annually) to reflect existing 2011 conditions.

These traffic volumes reflect typical weekday operations during current year conditions. The traffic volumes in Figure 2A and 2B represent, for the purposes of this analysis, the Existing (2011) AM and PM peak hour conditions, respectively.

The raw data showing the intersection traffic counts are attached in Appendix C.

Level of Service Methodology

Level of Service (LOS) is a qualitative measure used to describe the condition of traffic flow, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. LOS D is typically



FIGURE 2A
EXISTING (2011) AM PEAK HOUR TRAFFIC VOLUMES

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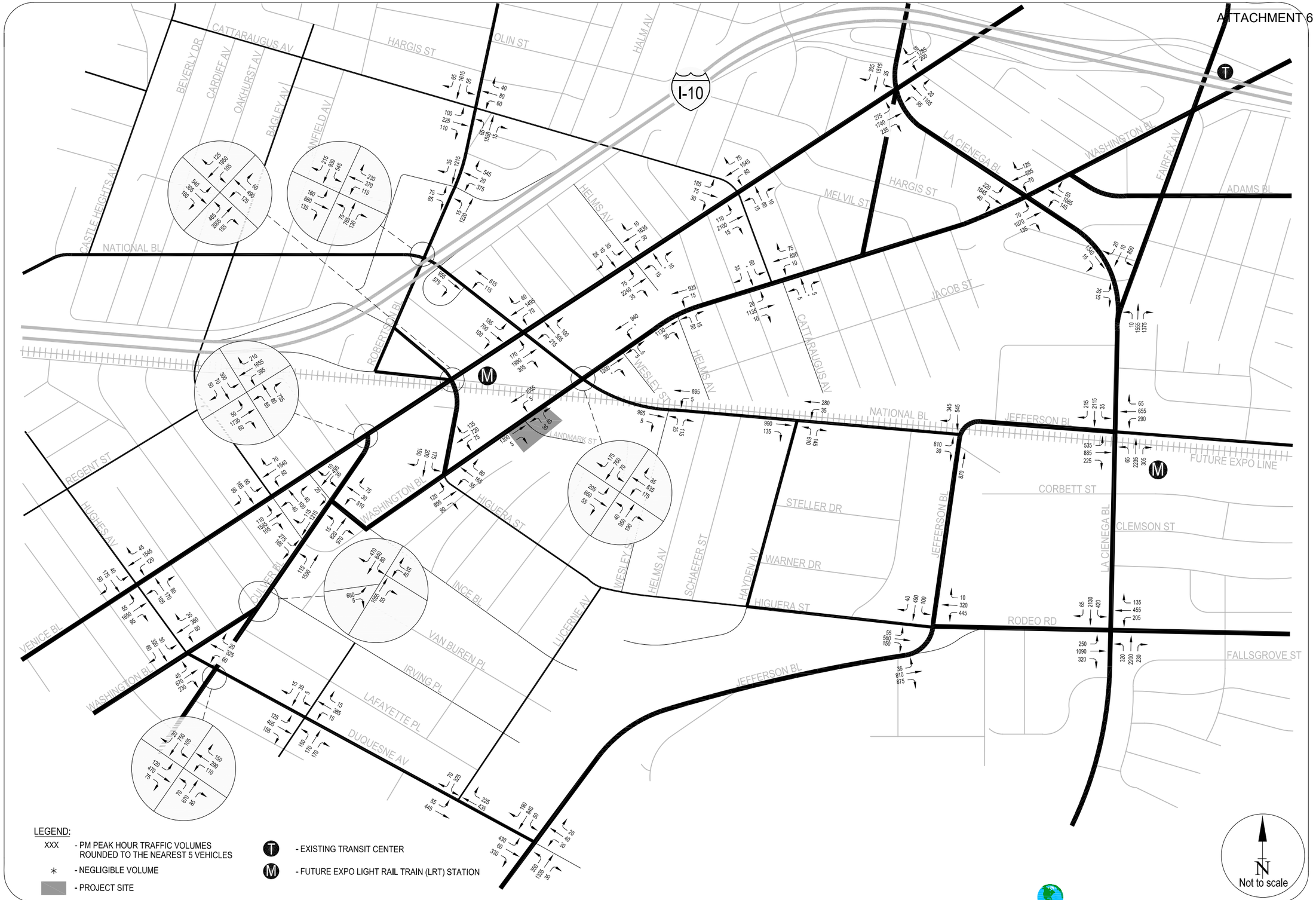


FIGURE 2B
EXISTING (2011) PM PEAK HOUR TRAFFIC VOLUMES

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recognized as the minimum acceptable level of service in urban areas. The Level of Service definitions for signalized and unsignalized intersections is provided in Table 2 and Table 3, respectively.

Thirty of the 34 analyzed intersections are controlled by traffic signals. Two intersections, Wesley Street/Washington Boulevard and Cattaraugus Avenue/Washington Boulevard, are unsignalized and controlled by a stop sign on the minor approaches. The remaining two locations, Braddock Drive/Duquesne Avenue and Lucerne Avenue/Duquesne Avenue, are all-way stop controlled intersections.

The "Critical Movement Analysis-Planning" (Transportation Research Board, 1980) method of intersection capacity analysis was used to determine the intersection volume to capacity (V/C) ratio and corresponding level of service at the signalized intersections. The CALCADB software package developed by LADOT was used to implement the CMA methodology. Table 2 defines the ranges of V/C ratios and corresponding levels of service for signalized intersections.

All 17 of the signalized study intersections under the City of Los Angeles jurisdiction are currently controlled by the City of Los Angeles' Automated Traffic Surveillance (ATSAC) and are part of the Smart Corridor ATSAC system. Fourteen of the 17 intersections also include the City's Adaptive Traffic Control System (ATCS). A capacity increase of 10% (0.07 V/C adjustments for ATSAC and 0.03 V/C adjustments for ATCS) was applied to reflect the benefits of ATSAC/ATCS control at these 14 intersections. At the remaining three intersections (intersection #5, 6 and 11), a capacity increase of 7% (0.07 V/C adjustments) was applied to reflect the benefits of ATSAC control.

The remaining 13 signalized intersections under the jurisdiction of the City of Culver City currently operate under a signal coordination system similar to ATSAC, but have not yet been upgraded with the ATCS-type operations. Therefore, a capacity increase of 7% (0.07 V/C adjustments) was applied to reflect the benefits of ATSAC-type control at these intersections.

The Highway Capacity Manual (HCM) 2000 method of unsignalized intersection analysis was used to determine the delay (in seconds) and corresponding level of service at the stop-controlled intersections.

TABLE 2
LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS

Level of Service	Volume/Capacity Ratio	Definition
A	0.000 - 0.600	EXCELLENT. No Vehicle waits longer than one red light and no approach phase is fully used.
B	>0.600 - 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	>0.700 - 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	>0.800 - 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	>0.900 - 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Source: Transportation Research Board, *Transportation Research Circular No. 212, Interim Materials on Highway Capacity* , 1980.

TABLE 3
LEVEL OF SERVICE DEFINITIONS FOR
STOP-CONTROLLED INTERSECTIONS

Level of Service	Average Total Delay (seconds/vehicle)
A	≤ 10.0
B	> 10.0 and ≤ 15.0
C	> 15.0 and ≤ 25.0
D	> 25.0 and ≤ 35.0
E	> 35.0 and ≤ 50.0
F	> 50.0

Source: Transportation Research Board, *Highway Capacity Manual, Special Report 209, 2000.*

For all-way stop controlled intersections, the intersection delay is defined as the average delay experienced by drivers at the intersection. For two-way stop-controlled locations, the intersection delay is defined as the worst case delay experienced by drivers at the intersection who must stop or yield to unimpeded major street traffic. This method uses a "gap acceptance" technique to predict driver delay and is applicable to unsignalized intersections where there is potential for difficulty for minor street or stopped traffic to cross the traffic on the major or unimpeded street. Table 3 defines the ranges of delay and corresponding levels of service for unsignalized intersections.

Existing Levels of Service

The existing traffic volumes presented in Figures 2A and 2B for AM and PM peak hours, respectively, were used in conjunction with the level of service methodologies described above and the current intersection characteristics illustrated in Appendix B, to determine the existing operating conditions at the analyzed intersections.

Table 4 summarizes the results of the intersection capacity analysis for existing conditions at each of the analyzed intersections in the study area. The table indicates the existing V/C ratio (or delay) during the morning and evening peak hours and the corresponding LOS at the study intersections. As indicated in the table, 24 of the 34 study intersections are currently operating at LOS D or better during the morning peak hour. During the evening peak hour, 26 of the 34 study intersections are operating at LOS D or better. The remaining intersections are operating at LOS E or F:

- Robertson Boulevard/Venice Boulevard: AM and PM Peak Hour – LOS F
- National Boulevard/Venice Boulevard: AM and PM Peak Hour – LOS E
- La Cienega Boulevard/Venice Boulevard: AM Peak Hour–LOS E; PM Peak Hour–LOS E
- Cattaraugus Avenue/Washington Boulevard: AM and PM Peak Hour – LOS F
- La Cienega Boulevard/Washington Boulevard: AM Peak Hour – LOS F
- La Cienega Boulevard/Fairfax Avenue: AM Peak Hour – LOS E
- Jefferson Boulevard/National Boulevard: PM Peak Hour – LOS F
- La Cienega Boulevard/Jefferson Boulevard: AM and PM Peak Hour – LOS F

TABLE 4
SUMMARY OF INTERSECTION LEVEL OF SERVICE ANALYSIS - EXISTING (2011) CONDITIONS

#	INTERSECTION		AM PEAK HOUR		PM PEAK HOUR	
			V/C or Delay	LOS	V/C or Delay	LOS
1	Robertson Boulevard	Cattaraugus Avenue [1]	0.841	D	0.831	D
2	Robertson Boulevard	I-10 WB Off-Ramp/Kincardine Avenue [1]	0.611	B	0.689	B
3	Robertson Boulevard	National Boulevard [1]	0.898	D	0.894	D
4	National Boulevard	I-10 Eastbound On-Ramp [1]	0.363	A	0.359	A
5	Hughes Avenue	Venice Boulevard [1]	0.705	C	0.639	B
6	Bagley Avenue	Venice Boulevard [1]	0.708	C	0.678	B
7	Culver Boulevard	Venice Boulevard [1]	0.683	B	0.783	C
8	Robertson Boulevard	Venice Boulevard [1]	1.237	F	1.159	F
9	National Boulevard	Venice Boulevard [1]	0.970	E	0.954	E
10	Helms Avenue	Venice Boulevard [1]	0.457	A	0.479	A
11	Cattaraugus Avenue	Venice Boulevard [1]	0.771	C	0.653	B
12	La Cienega Boulevard	Venice Boulevard [1,2]	0.961	E	0.975	E
13	Hughes Avenue/Duquesne Avenue	Washington Boulevard	0.534	A	0.577	A
14	Duquesne Avenue	Culver Boulevard	0.612	B	0.775	C
15	Culver Boulevard	Washington Boulevard/Irving Place	0.504	A	0.534	A
16	Main Street	Culver Boulevard	0.499	A	0.515	A
17	Culver Boulevard	Washington Boulevard	0.566	A	0.540	A
18	Robertson Boulevard/Higuera Street	Washington Boulevard	0.706	C	0.538	A
19	Landmark Street	Washington Boulevard	0.472	A	0.394	A
20	National Boulevard	Washington Boulevard	0.789	C	0.722	C
21	Wesley Avenue	Washington Boulevard [3]	11.5 sec	B	28.3 sec	D
22	Helms Avenue	Washington Boulevard	0.492	A	0.366	A
23	Cattaraugus Avenue	Washington Boulevard [3]	*** sec	F	133.3 sec	F
24	La Cienega Boulevard	Washington Boulevard	1.047	F	0.881	D
25	La Cienega Boulevard	Fairfax Avenue [1]	0.960	E	0.812	D
26	Wesley Street	National Boulevard	0.586	A	0.355	A
27	Hayden Avenue	National Boulevard	0.827	D	0.614	B
28	Jefferson Boulevard	National Boulevard [1]	0.697	B	1.037	F
29	La Cienega Boulevard	Jefferson Boulevard [1,2]	1.081	F	1.059	F
30	Jefferson Boulevard	Higuera Street/Rodeo Road [1]	0.739	C	0.677	B
31	La Cienega Boulevard	Rodeo Road [1]	1.067	F	1.203	F
32	Braddock Drive	Duquesne Avenue [4]	140.4 sec	F	85.7 sec	F
33	Lucerne Avenue	Duquesne Avenue [4]	23.7 sec	C	28.6 sec	D
34	Jefferson Boulevard	Duquesne Avenue	0.950	E	0.833	D

*** Intersection delay cannot be calculated.
[1] City of Los Angeles location.
[2] Los Angeles County Congestion Management Program (CMP) monitoring location.
[3] Unsignalized intersections - stop-controlled on minor approach(es).
[4] Unsignalized intersections - stop-controlled on all approach.

- La Cienega Boulevard/Rodeo Road: AM and PM Peak Hour – LOS F
- Braddock Drive/Duquesne Avenue: AM and PM Peak Hour – LOS F
- Jefferson Boulevard/Duquesne Avenue: AM Peak Hour – LOS E

Capacity calculation worksheets for Existing (2011) conditions are provided in Appendix D.

EXISTING TRANSIT LINES

Eighteen bus lines operated by three different transportation agencies currently serve the study area. Four bus lines are operated by the Culver City Bus (CC), ten bus lines are operated by the Los Angeles County Metropolitan Transportation Authority (MTA), three bus lines are operated by the Santa Monica Big Blue Bus (SM) and one bus is operated by the Los Angeles Department of Transportation (LADOT CE). These transit lines are described below:

- CC Line 1 – Line 1 is a local east/west line that provides service from Venice Beach to West Los Angeles and travels primarily along Washington Boulevard within the study area. This line runs everyday, including holidays. The frequency of service during peak commute hours is approximately 12 minutes. The western terminus is at the intersection of Windward Avenue and Main Street in Venice. The eastern terminus is at the West Los Angeles Transit Center located at the intersection of Apple Street/Fairfax Avenue in West Los Angeles.

- CC Line 4 – Line 4 is a local north/south line that provides service from the Fox Hills Mall (Culver City) to West Los Angeles and travels primarily along Washington Boulevard within the study area. This line runs Monday through Friday at a frequency of approximately 60 minutes during peak commute hours. No weekend or holiday service is provided. The southern terminus is at the Fox Hills Mall Transit Center. The northern terminus is at the West Los Angeles Transit Center located at the intersection of Apple Street/Fairfax Avenue in West Los Angeles.

- CC Line 5 – Line 5 is a local east/west line that provides service from the west side of Culver City to Blair Hills on the east side, and travels primarily along Washington Boulevard and Higuera Street within the study area. This line operates Monday through Friday at a frequency of approximately 60 minutes during peak commute hours. No weekend or holiday service is provided. The western terminus is at the intersection of Washington Boulevard/Inglewood Boulevard. The eastern terminus is at the intersection of La Cienega Boulevard/Rodeo Road.

- CC Line 7 – Line 7 is a local east/west line that provides service from Marina Del Rey to Culver City and travels primarily along Culver Boulevard within the study area. This line runs Monday through Saturday at a frequency of approximately 40 minutes. No service is provided on Sundays and holidays. The western terminus is at Fisherman's Village in Marina Del Rey. The eastern terminus is at the intersection of Culver Boulevard/Venice Boulevard in Culver City.

- MTA Line 33 - Line 33 is a local east/west line that provides service from Santa Monica to Downtown Los Angeles and travels primarily along Venice Boulevard within the study area. This line runs everyday, including holidays, at a frequency of approximately 5-15 minutes during peak commute hours. The western terminus is at the intersection of 2nd Street/Santa Monica Boulevard in Santa Monica. The eastern terminus is at the Patsaouras Transit Plaza (Union Station) in Downtown Los Angeles.

- MTA Line 35/335 - Line 35/335 is a local east/west line that provides service from West Los Angeles to Downtown Los Angeles and travels primarily along Washington Boulevard within the study area. This line runs everyday, including holidays, at a frequency of approximately 12 minutes during peak commute hours. The western terminus is at the West Los Angeles Transit Center located at the intersection of Apple Street/Fairfax Avenue in West Los Angeles. The eastern terminus is at the intersection of Main Street/17th Street in Downtown Los Angeles. Line 335 provides limited stop service Monday through Friday and does not operate on weekends/holidays.

- MTA Line 38 - Line 38 is a local east/west line that provides service from West Los Angeles to Downtown Los Angeles and travels primarily along Venice Boulevard within the study area. This line runs everyday, including holidays, at a frequency of approximately 30 minutes during peak commute hours. The western terminus is at the West Los Angeles Transit Center located at the intersection of Apple Street/Fairfax Avenue in West Los Angeles. The eastern terminus is at the intersection of Broadway/17th Street in Downtown Los Angeles.

- MTA 105 - Line 105 is a local north/south line that provides service from West Hollywood to Vernon and travels primarily along La Cienega Boulevard within the study area. This line runs everyday, including holidays, at a frequency of approximately 10-12 minutes during peak commute hours. The northern terminus is at the intersection of San Vicente Boulevard/Santa Monica Boulevard in West Hollywood. The southern terminus is at the intersection of Santa Fe Avenue/Vernon Avenue in the Vernon.

- MTA Line 217 – Line 217 is a local north/south line that provides service from West Los Angeles to Hollywood and travels primarily along Fairfax Avenue and Washington Boulevard within the study area. This line runs everyday, including holidays, at a frequency of approximately 10-12 minutes during peak commute hours. The southern terminus is at the West Los Angeles Transit Center located at the intersection of Apple Street/Fairfax Avenue in West Los Angeles. The northern terminus is at Vermont/Sunset Metro Station in Hollywood.

- MTA Line 220 – Line 220 is a local north/south line that provides service from Los Angeles International Airport (LAX) to West Hollywood and travels primarily along Venice Boulevard and National Boulevard within the study area. This line runs everyday, including holidays, at a frequency of approximately 55 minutes during peak commute hours. The southern terminus is at the LAX City Bus Center. The northern terminus is at intersection of Santa Monica Boulevard/San Vicente Boulevard in West Hollywood.

- MTA 439 - Line 439 is an express service north/south line that provides service from Los Angeles International Airport to Downtown Los Angeles and travels primarily along La Cienega Boulevard within the study area. This line runs everyday, including holidays, at a frequency of approximately 45 minutes during peak commute hours. The southern terminus is at the Aviation/I-105 Green Line Station. The northern terminus is at the Patsaouras Transit Plaza (Union Station) in Downtown Los Angeles.

- MTA 705 - Line 705 is a north/south 'Rapid Bus' line that provides service from West Hollywood to Vernon and travels primarily along La Cienega Boulevard within the study area. This line runs Monday through Friday at a frequency of approximately 10 minutes during peak commute hours. No service is provided on weekends or holidays. The northern terminus is at the intersection of San Vicente Boulevard/Santa Monica Boulevard in West Hollywood. The southern terminus is at the intersection of Santa Fe Avenue/Vernon Avenue in the Vernon.

- MTA 733 - Line 733 is an east/west 'Rapid Bus' line that provides service from Santa Monica to Downtown Los Angeles and travels primarily along Venice Boulevard within the study area. This line runs Monday through Friday at a frequency of approximately 10 minutes during peak commute hours. Service is also provided on weekends and holidays. The western terminus is at the intersection of Ocean Avenue/Arizona Avenue in Santa Monica. The eastern terminus is at the Patsaouras Transit Plaza (Union Station) in Downtown Los Angeles.

- MTA 780 - Line 780 is an east/west 'Rapid Bus' line that provides service from Pasadena to West Los Angeles and travels primarily along Washington Boulevard within the study area. This line runs Monday through Friday at a frequency of approximately 8-10 minutes during peak commute hours. No service is provided on weekends and holidays. The western terminus is at the West Los Angeles Transit Center located at the intersection of Apple Street/Fairfax Avenue in West Los Angeles. The eastern terminus is at the intersection of Hill Avenue/Colorado Boulevard in Pasadena.

- CE 437 - Line 437 is a commuter express east/west line that provides service from Downtown Los Angeles to Venice and travels primarily along Culver Boulevard within the study area. This line runs Monday through Friday at a frequency of approximately 25 minutes during peak commute hours. The western terminus is at the intersection of Pacific Avenue/Washington Boulevard in Venice. The eastern terminus is at the intersection of San Pedro Street/Temple Street Drive in Los Angeles.

- SM 6 – Santa Monica Big Blue Bus Line 6 is an east/west commuter line that provides service from Santa Monica College to the Palms Community of Los Angeles and travels primarily along Venice Boulevard and National Boulevard within the study area. This line runs Monday through Friday at a peak frequency of approximately 25-30 minutes during peak commute hours. The western terminus is at Santa Monica College in Santa Monica. The eastern terminus is at the intersection of Venice Boulevard/Culver Boulevard in Palms.

- SM 12 – Santa Monica Big Blue Bus Line 12 is a local east/west line that provides service from Westwood to Palms Community of Los Angeles and travels primarily along Venice Boulevard, National Boulevard and Robertson Boulevard within the study area. This line runs Monday through Friday at a peak frequency of approximately 15 minutes during peak commute hours. Service is also provided on weekends and holidays. The western terminus is at the University of California Los Angeles (UCLA) Ackerman Terminal in Westwood. The eastern terminus is at the intersection of Robertson Boulevard/Pico Boulevard in Palms.

- SM Super 12 – Santa Monica Bus Blue Bus Line Super 12 is a north/south UCLA commuter line that provides service from Westwood to West Los Angeles and travels primarily along National Boulevard within the study area. This line runs Monday through Friday at a frequency of approximately 10-15 minutes with no midday service. Service is not provided on weekends and holidays. The northern terminus is at the University of California Los Angeles (UCLA) Ackerman Terminal in Westwood. The southern terminus is at the intersection of National Boulevard/Venice Boulevard in West Los Angeles.

These transit lines within the study area are illustrated in Figure 3. It can be observed from Figure 3 that there is a robust transit network serving the study area. Further, the Exposition Line Light Rail Transit (LRT) with its Phase I terminus adjacent to the Project site will provide mass transit connections to the University of Southern California (USC) and Downtown Los Angeles. This phase of the Exposition LRT is expected to open with the next year and the subsequent Phase 2 service extension to Santa Monica is expected to open by 2015.

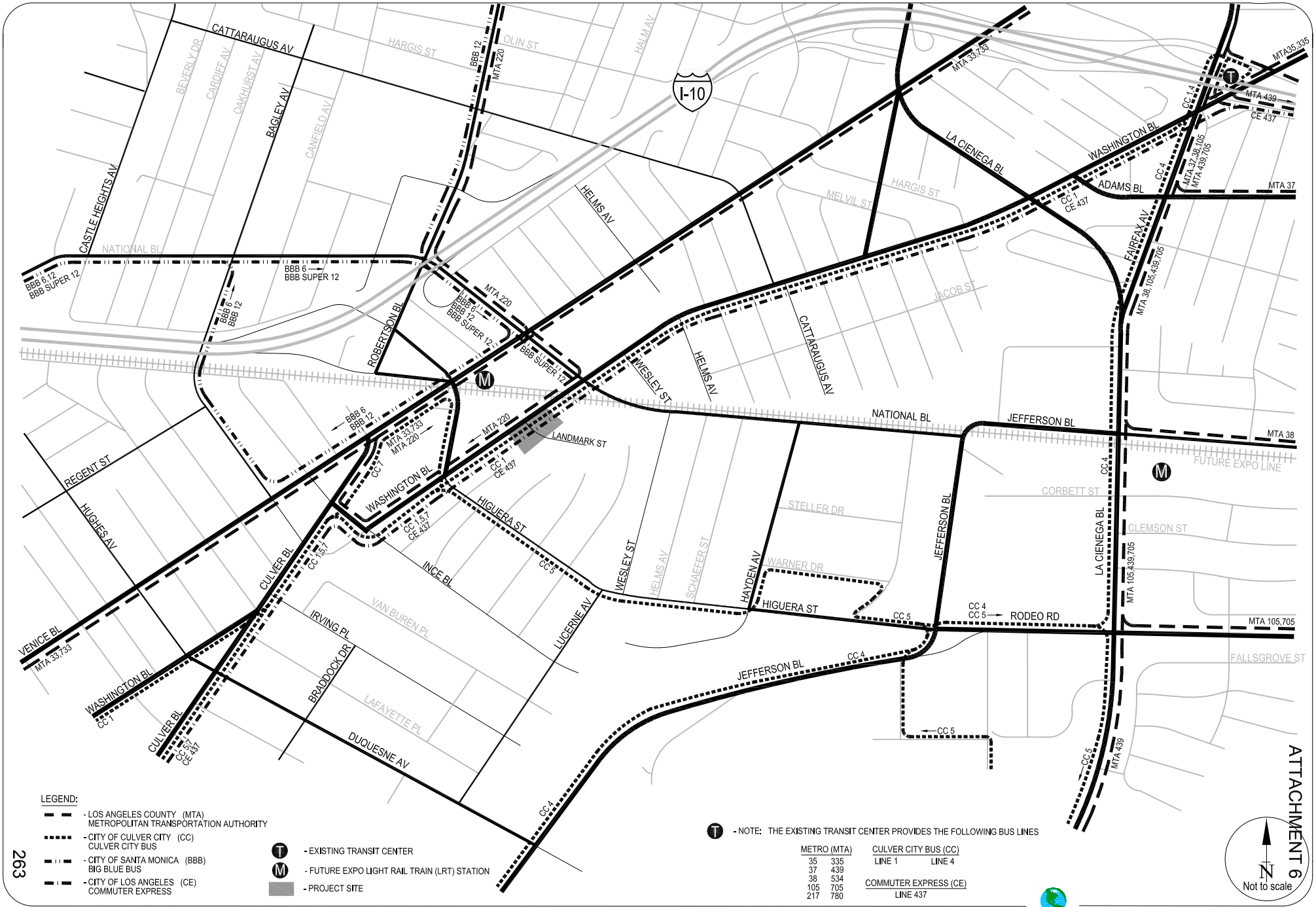


FIGURE 3
EXISTING TRANSIT LINES

ATTACHMENT 6

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III. FUTURE YEAR 2014 TRAFFIC PROJECTIONS

In order to properly evaluate the potential impact of the proposed project on the local street system, estimates of the Future Year 2014 traffic volumes both with and without the project were developed. The Future Year 2014 without the project was first developed including estimates for background growth in area-wide trip making and trips generated by future developments (related projects) in the vicinity of the study area. The Future Year 2014 without project traffic represents the cumulative base conditions. The traffic generated by the proposed project was then estimated and assigned separately to the street system. The addition of the project traffic and the cumulative base traffic represents the Future Cumulative (2014) Plus Project conditions. Each of these future traffic scenarios is further described in this chapter.

CUMULATIVE (2014) BASE TRAFFIC PROJECTIONS

The Cumulative (2014) Base traffic projections reflect growth in traffic from two primary sources: firstly, the background, or ambient growth, to reflect the effects of overall area-wide regional growth both within and outside the study area; and secondly, from traffic generated by specific related projects located within, or in the vicinity of, the study area. Each of these components is described below.

Area-Wide Ambient Traffic Growth

The traffic in the vicinity of the study area has been estimated to increase at a rate of about 1% per year. Future increases in background traffic volumes due to regional growth and development are expected to continue at this rate. With the assumed completion date of 2014, the existing 2011 traffic volumes were adjusted upward by a factor of 3% (1% per year compounded annually) to reflect this area-wide regional growth.

Related Projects Traffic Generation and Assignment

As indicated, the second potential source of traffic growth in the study area is that expected from other future development projects in the vicinity. These "cumulative" or related projects are those developments that are planned and expected to be in place within the same timeframe as the Proposed Project. Data describing related projects in the area was solicited from the City of Culver City and the City of Los Angeles. Fifty-two related projects from the City of Culver City, City of Los Angeles and County of Los Angeles were identified within the study area. The related projects included in this study are described in Table 5. The locations of these projects are shown in Figure 4.

The trip generation estimates for the related projects were based on different sources including trip generation rates contained in the Institute of Traffic Engineers (ITE), *Trip Generation – An ITE Information Report*, 8th Edition, and trip generation estimates provided by the recently completed traffic studies for projects in Culver City. These rates are provided in Appendix E. The trip generation estimates for the related projects are shown in Table 6. As summarized in Table 6, the related projects are expected to generate approximately 52,000 daily trips, of which 5,063 trips are estimated to occur during the morning peak hour and 5,452 trips during the evening peak hour.

These related projects' trips were assigned to the street system and the results are shown in Figures 5A and 5B. These related projects' traffic estimates were added to the existing plus ambient growth traffic to obtain the Cumulative (2014) Base traffic volumes. Figures 6A and 6B provide the Cumulative (2014) Base traffic volumes at each of the analyzed intersections during both AM and PM peak hours, respectively. These volumes represent Future Cumulative (2014) Base (without project) conditions.

It is important to note that there are several large related projects planned in the immediate vicinity of the Project site. Two of these projects, Metro Exposition Light Rail Washington/National Station (#29) and the Triangle Project (#39), are located in the northwest corner of intersection of National Boulevard/Washington Boulevard, across the street from the Proposed Project. These two cumulative projects would have combined net trip generation total of approximately 1,045 trips in the morning peak hour and 1,117 trips in the evening peak hour with driveways located along National Boulevard and Washington Boulevard.

TABLE 5
LIST OF RELATED PROJECTS [1]

Map #	Project Name	Address	Description
1	Sony	10202 Washington Bl	Sony Lot Project - Approved to build net new 100,000 G.S.F. of office, post-production, stage, and support uses.
2	Huron Townhouses	3823-3833 Huron Av	15 new townhouses, demo 3 existing townhouses
3	Four Unit Condominium	3972 Tilden Av	4 unit condominium, TPM
4	Baldwin Hills Scenic Overlook Park	Hetzler Rd	Existing 10,300 G.S.F. visitor center, passive recreation area
5	Three New Condominiums	4048 Lincoln Av	3 townhome condominiums
6	Eight Unit Condo	4067/4073 Lincoln Av	8 unit condominiums, TTM, 2,000 G.S.F.; 20 parking spaces provided
7	Turning Point School	8794 National	School, addition/remodel of net 9,000 G.S.F.
8	Uptown Lofts	9900 Culver Bl	5,457 G.S.F. offices, 18 condominiums
9	Hampton Inn	3954 Sepulveda Bl	77-unit hotel
10	Four Unit Condominium	4014 Van Buren Pl	4 unit condominium, TPM
11	Irving Residential/Office	4043 Irving Pl	4 Story; 26 residential units; 3 office units
12	Legado Mixed Use TOD	8770 Washington Bl	New mixed used development w/preliminary concept of up to (appox.) 115 residential units, retail (market, pharmacy & café) 31,040 G.S.F.
13	West Los Angeles Community College Master Plan and EIR	LA County	Approx. 291,300 G.S.F. of new building construction & renovation. Anticipate future student population of approx. 18,904 students & 1,248 employees by fall 2022. Project includes second access road, parking structures, landscaping & development of athletic facilities.
14	Morphosis Architects Office	3440 Wesley	11,657 S.F. Architects Office (Previously Clyde's Auto Body Shop)
15	Lux @ 9901 Mixed Use	9901 Washington Bl, City of LA	14,112 G.S.F. mixed use development with 131 dwelling units, 12,178 G.S.F. of retail and three level subterranean parking structure with 244 parking spaces.
16	New Restaurant	5854 Blackwelder St/3077 La Cienega	Addition of 1,150 G.S.F. Two story structure to existing 1,195 G.S.F. building for new restaurant use.
17	New Dental Office - Building Permit	10826, and 10830 Washington Bl	Construction of new one story dental and retail building (2,989 G.S.F)
18	Union 76	10638 Culver Bl	Gas station and convenience store with new car wash; 2,500 G.S.F.
19	Distribution & Warehouse	3434 Wesley St	Approximately 10,500 G.S.F. of office, warehouse, & distribution
20	Four Unit Condominium	3846 Bentley Av	4 unit condominium, TPM
21	Four Unit Condominium	4058 Madison Av	4 unit condominium, TPM
22	Warner Parking Structure	8511 Warner Dr	51,520 G.S.F. Retail/Restaurant; 784 Parking Spaces, five levels
23	Office Building	9919 Jefferson Bl	113,467 G.S.F., three-story office building
24	New Vehicle Repair Shop	11167 Washington Pl	Construction of a new vehicle repair shop with 1,196 G.S.F. of repair area with two service bays and 191 G.S.F. of office.
25	Fresh Paint Mixed Use	9355 Culver Bl	Additional 2nd story office and third floor residential unit for a total of 5,708 G.S.F. to an existing office/warehouse building
26	Abraxis Bio Science	9920 Jefferson Bl	Exterior and interior renovation to an existing two-story building. Addition of a three story, 17,000 G.S.F. building over a one-story building (net addition is 14,999 G.S.F. - demo 2,001 G.S.F of existing building area).
27	Clive Wilkinson Architects	6114, 6116, 6118 Washington Bl	New two-story, 5,560 G.S.F. office building which includes an ancillary retail or office.
28	New 7-Eleven Convenient Store	4436 Sepulveda Bl	Construction of a new 2,500 G.S.F., one story convenience store.
29	Metro Expo Light Rail Station-Venice/Robertson Station	Venice Bl/Robertson Bl	Light Rail Train Station
30	Metro Expo Light Rail Station-La Cienega Station [2]	La Cienega Bl/Jefferson Bl	Light Rail Train Station
31	Parcel B	9300 Culver Bl	118,000 G.S.F. of office, restaurant, and retail spaces
32	West Los Angeles Community College Master Plan and EIR (2010)	West LA College	Approximately 92,000 of net new building construction and renovation.
33	Culver Studios Amend. No. 6	9336 Washington Bl	Phase 1 - 25,093 G.S.F. office; 13,634 G.S.F. support; 302 parking spaces. Phase 2 - 63,500 G.S.F. office; 8,741 G.S.F. support
34	Arco AM/PM - New Carwash	5884 Washington Bl	New Carwash and storage room totaling 1,200 G.S.F. at an existing fueling station.
35	New Two story commercial building	11012 - 11014 Washington Bl	Two story commercial building totaling 3,385 G.S.F.
36	Tilden Terrace	11042-11056 Washington Bl	New three-story, 48,525 G.S.F. mixed use development with 10,700 G.S.F. of ground floor retail and 33 residential units.
37	Duquesne Ave Condominiums	4139-4145 Duquesne Av	Seven (7) condominium units.
38	Greg Reitz	8665 Hayden Pl	Construct 63,679 G.S.F. of office

TABLE 5 (continued)
LIST OF RELATED PROJECTS [1]

Map #	Project Name	Address	Description
39	Triangle Site - Washington/National TOD	Corner of Washington/National	New transit oriented development to include light rail station & mixed use development (preliminary concept includes up to 200 du, 149 room hotel, 200,000 G.S.F. office, 51,500 G.S.F. retail, & 20,000 G.S.F. restaurant.
40	Willow's School Comprehensive Plan	8509-8487 Higuera St, 8476 Warner Dr	Phase 1 - new surface parking; increased student enrollment by 50 from 425 to 475; Phase II & III increased student enrollment by 100, from 475 to 575.
41	Bridge Housing Project	3814 Lenawee Av	Proposal for 2-3 story senior housing project with 62 units and 41 parking spaces.
42	Jewish Home for the Aging, Gonda Healthy Aging Campus	3847 Delmas Ter., 3820-3842 Hughes, 9823 Venice Bl	184 congregate care units, 48 residential care units, 14,000 G.S.F. PACE program
43	Mixed-Use (The Palms) [3]	10601 Washington Boulevard	Proposed mixed-use with 126-unit apartment, 9,000 s.f. retail and 9,000 s.f. restaurant space. Existing 10,000 s.f. office to be removed.
44	Apartment/Retail [3]	3417 Motor Avenue	Proposed mixed-use with 115-unit apartment and 975 s.f. retail. Existing 15 apartment units, 2 single-family d.u. and 3,300 s.f. office to be demolished.
45	Mixed-Use [3]	10604 National Boulevard	Construct 29 condominiums d.u., 1,250 s.f. retail, and 2,000 s.f. retail.
46	Mixed-Use [3]	2900 S. Sepulveda Boulevard	Proposed mixed-use with 48-unit apartment and 1,500 s.f. office.
47	Media Related Office [3]	3105 La Cienega Boulevard	Proposed 133,000 s.f. media-relations office. Existing 109,000 s.f. manufacturing to be removed.
48	Office [3]	10100 Culver Boulevard	Proposed 50,000 s.f. office.
49	Mixed-Use [3]	3115 S. Sepulveda Boulevard	Proposed mixed-use with 175-unit condominium and 28,000 s.f. retail. Existing 28,000 discount store to be removed.
50	Condominium [3]	11131 Rose Avenue	Proposed 227-unit condominium. Existing 89-unit apartment to be removed.
51	Restaurant/Retail [3]	10612 National Boulevard	Proposed 2,500 s.f. restaurant and 3,500 s.f. retail.
52	Private School [3]	2920 S. Sepulveda Boulevard	Proposed 120-student private school (Goethe International Charter School). Existing 9,000 s.f. office to be removed.

[1] Source: Culver City Related Projects List provided by the City of Culver City, dated March 31, 2011, unless otherwise noted.
[2] Mid-City/Exposition LRT Project Final EIR/EIS, Los Angeles Metropolitan Transportation Authority/USDOT, Federal Transit Administration, October 2005.
[3] Related Projects List provided by the City of Los Angeles, LADOT, February 2011.



FIGURE 4
LOCATION OF RELATED PROJECTS

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TABLE 6
ESTIMATED WEEKDAY TRIP GENERATION OF RELATED PROJECTS [1]

Map #	Project Name	Description	Daily	AM Peak Hour			PM Peak Hour		
				IN	OUT	TOTAL	IN	OUT	TOTAL
1	Sony	Sony Lot Project - Approved to build net new 100,000 G.S.F. of office, post-production, stage, and support uses.	1,334	165	23	188	32	159	191
2	Huron Townhouses	15 new townhouses, demo 3 existing townhouses	70	1	5	6	4	2	6
3	Four Unit Condominium	4 unit condominium, TPM	23	0	2	2	1	1	2
4	Baldwin Hills Scenic Overlook Park [2]	Existing 10,300 G.S.F. visitor center, passive recreation area	446	0	0	0	8	60	68
5	Three New Condominiums	3 townhome condominiums	17	0	1	1	1	1	2
6	Eight Unit Condo	8 unit condominiums, TTM, 2,000 G.S.F.; 20 parking spaces provided	46	1	3	4	3	1	4
7	Turning Point School [2]	School, addition/remodel of net 9,000 G.S.F.	130	23	19	42	12	16	28
8	Uptown Lofts	5,457 G.S.F. offices, 18 condominiums	165	8	8	16	7	10	17
9	Hampton Inn	77-unit hotel	687	30	22	52	26	28	54
10	Four Unit Condominium	4 unit condominium, TPM	23	0	2	2	1	1	2
11	Irving Residential/Office	4 Story; 26 residential units; 3 office units	188	6	10	16	10	9	19
12	Legado Mixed Use TOD [2]	New mixed used development w/preliminary concept of up to (appox.) 115 residential units, retail (market, pharmacy & café) 31,040 G.S.F.	2,914	69	85	154	150	125	275
13	West Los Angeles Community College Master Plan and EIR [2]	Approx. 291,300 G.S.F. of new building construction & renovation. Anticipate future student population of approx. 18,904 students & 1,248 employees by fall 2022. Project includes second access road, parking structures, landscaping & development of athletic facilities.	6,785	436	45	481	300	133	433
14	Morphosis Architects Office	11,657 S.F. Architects Office (Previously Clyde's Auto Body Shop)	129	16	2	18	3	14	17
15	Lux @ 9901 Mixed Use	14,112 G.S.F. mixed use development with 131 dwelling units, 12,178 G.S.F. of retail and three level subterranean parking structure with 244 parking spaces.	1,457	24	60	84	74	49	123
16	New Restaurant	Addition of 1,150 G.S.F. Two story structure to existing 1,195 G.S.F. building for new restaurant use.	146	7	6	13	8	5	13
17	New Dental Office - Building Permit	Construction of new one story dental and retail building (2,989 G.S.F)	108	6	1	7	3	7	10
18	Union 76	Gas station and convenience store with new car wash; 2,500 G.S.F.	2,700	101	97	198	122	121	243
19	Distribution & Warehouse	Approximately 10,500 G.S.F. of office, warehouse, & distribution	89	6	1	7	2	5	7
20	Four Unit Condominium	4 unit condominium, TPM	23	0	2	2	1	1	2
21	Four Unit Condominium	4 unit condominium, TPM	23	0	2	2	1	1	2
22	Warner Parking Structure	51,520 G.S.F. Retail/Restaurant; 784 Parking Spaces, five levels	3,112	94	76	170	116	109	225
23	Office Building	113,467 G.S.F., three-story office building	1,470	183	25	208	35	171	206
24	New Vehicle Repair Shop	Construction of a new vehicle repair shop with 1,196 G.S.F. of repair area with two service bays and 191 G.S.F. of office.	42	3	1	4	2	2	4
25	Fresh Paint Mixed Use	Additional 2nd story office and third floor residential unit for a total of 5,708 G.S.F. to an existing office/warehouse building	63	8	1	9	2	7	9
26	Abraxis Bio Science [3]	Exterior and interior renovation to an existing two-story building. Addition of a three story, 17,000 G.S.F. building over a one-story building (net addition is 14,999 G.S.F. - demo 2,001 G.S.F of existing building area).	194	23	2	25	4	21	25
27	Clive Wilkinson Architects	New two-story, 5,560 G.S.F. office building which includes an ancillary retail or office.	62	8	1	9	1	7	8
28	New 7-Eleven Convenient Store	Construction of a new 2,500 G.S.F., one story convenience store.	1,845	84	84	168	67	64	131
29	Metro Expo Light Rail Station-Venice/Robertson Station [4]	Light Rail Train Station	n/a	370	62	432	50	296	346
30	Metro Expo Light Rail Station-La Cienega Station [4]	Light Rail Train Station	n/a	223	41	264	33	179	212
31	Parcel B	118,000 G.S.F. of office, restaurant, and retail spaces	4,766	249	155	404	199	225	424

TABLE 6 (continued)
ESTIMATED WEEKDAY TRIP GENERATION OF RELATED PROJECTS [1]

Map #	Project Name	Description	Daily	AM Peak Hour			PM Peak Hour		
				IN	OUT	TOTAL	IN	OUT	TOTAL
32	West Los Angeles Community College Master Plan and EIR (2010)	Approximately 92,000 of net new building construction and renovation.	2,529	204	71	275	136	98	234
33	Culver Studios Amend. No. 6	Phase 1 - 25,093 G.S.F. office; 13,634 G.S.F. support; 302 parking spaces. Phase 2 - 63,500 G.S.F. office; 8,741 G.S.F. support	1,445	180	24	204	35	168	203
34	Arco AM/PM - New Carwash	New Carwash and storage room totaling 1,200 G.S.F. at an existing fueling station.	189	8	9	17	9	8	17
35	New Two story commercial building	Two story commercial building totaling 3,385 G.S.F.	145	2	1	3	6	7	13
36	Tilden Terrace [3]	New three-story, 48,525 G.S.F. mixed use development with 10,700 G.S.F. of ground floor retail and 33 residential units.	367	6	15	21	17	12	29
37	Duquesne Ave Condominiums	Seven (7) condominium units.	41	1	2	3	3	1	4
38	Greg Reitz	Construct 63,679 G.S.F. of office	705	87	12	99	16	79	95
39	Triangle Site - Washington/National TOD	New transit oriented development to include light rail station & mixed use development (preliminary concept includes up to 200 du, 149 room hotel, 200,000 G.S.F. office, 51,500 G.S.F. retail, & 20,000 G.S.F. restaurant.	9,021	415	198	613	349	476	825
40	Willow's School Comprehensive Plan [3]	Phase 1 - new surface parking; increased student enrollment by 50 from 425 to 475; Phase II & III increased student enrollment by 100, from 475 to 575.	372	75	60	135	12	15	27
41	Bridge Housing Project	Proposal for 2-3 story senior housing project with 62 units and 41 parking spaces.	216	3	5	8	6	4	10
42	Jewish Home for the Aging, Gonda Healthy Aging Campus	184 congregate care units, 48 residential care units, 14,000 G.S.F. PACE program	975	33	13	46	34	53	87
43	Mixed-Use (The Palms) [5]	Proposed mixed-use with 126-unit apartment, 9,000 s.f. retail and 9,000 s.f. restaurant space. Existing 10,000 s.f. office to be removed.	1,802	56	69	125	95	72	167
44	Apartment/Retail [5]	Proposed mixed-use with 115-unit apartment and 975 s.f. retail. Existing 15 apartment units, 2 single-family d.u. and 3,300 s.f. office to be demolished.	651	6	37	43	31	16	47
45	Mixed-Use [5]	Construct 29 condominiums d.u., 1,250 s.f. retail, and 2,000 s.f. retail.	683	13	25	38	79	59	138
46	Mixed-Use [5]	Proposed mixed-use with 48-unit apartment and 1,500 s.f. office.	376	7	24	31	18	10	28
47	Media Related Office [5]	Proposed 133,000 s.f. media-relations office. Existing 109,000 s.f. manufacturing to be removed.	490	46	3	49	25	14	39
48	Office [5]	Proposed 50,000 s.f. office.	551	66	9	75	16	80	96
49	Mixed-Use [5]	Proposed mixed-use with 175-unit condominium and 28,000 s.f. retail. Existing 28,000 discount store to be removed.	989	25	64	89	75	56	131
50	Condominium [5]	Proposed 227-unit condominium. Existing 89-unit apartment to be removed.	727	8	47	55	55	26	81
51	Restaurant/Retail [5]	Proposed 2,500 s.f. restaurant and 3,500 s.f. retail.	475	18	16	34	37	29	66
52	Private School [5]	Proposed 120-student private school (Goethe International Charter School). Existing 9,000 s.f. office to be removed.	199	56	56	112	3	4	7
		RELATED PROJECTS TRIP GENERATION TOTAL	52,005	3,459	1,604	5,063	2,335	3,117	5,452

[1] Unless otherwise noted, trip generation estimates determined from trip rates contained in *Trip Generation, An ITE Information Repor*t, 8th Edition, ITE 2008.

[2] Trip generation from *Traffic Impact Analysis Report, Proposed Mixed-Use Development (115-Unit Residential and 31,240 Square Foot Retail) Located at 8770 Washington Boulevard in Culver City, California*, Hirsch/Green Transportation Consulting, Inc., July 2010.

[3] Trip generation provided by the City of Culver City.

[4] Trip generation from Mid-City/Exposition LRT Project Final EIR/EIS, Los Angeles Metropolitan Transportation Authority/USDOT, Federal Transit Administration, October 2005.

[5] Trip generation totals provided by LADOT, February 2011. Directional distribution based on *Trip Generation, An ITE Information Report,* 8th Edition, ITE 2008.



FIGURE 5A
RELATED PROJECTS ONLY AM PEAK HOUR TRAFFIC VOLUMES

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FIGURE 5B
RELATED PROJECTS ONLY PM PEAK HOUR TRAFFIC VOLUMES

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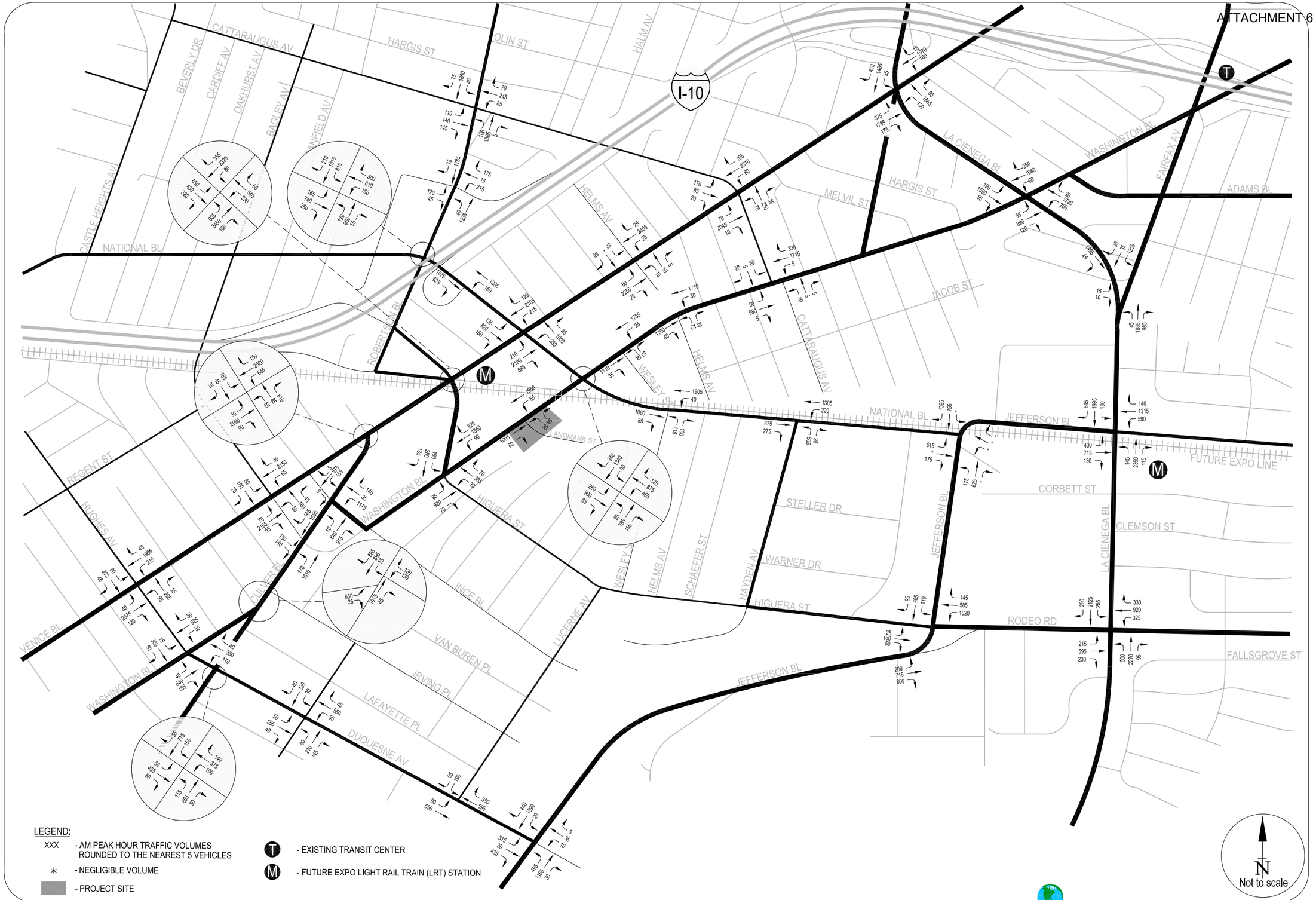


FIGURE 6A
CUMULATIVE (2014) BASE AM PEAK HOUR TRAFFIC VOLUMES

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FIGURE 6B
CUMULATIVE (2014) BASE PM PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc

Another related project, the Legado Mixed-Use Project (#12) at 8770 Washington Boulevard, is planned at the southeast corner of the National Boulevard/Washington Boulevard intersection. This project is estimated to generate a net total of approximately 154 trips during the morning peak hour and 275 trips during the evening peak hour. These three related projects would substantially increase the future traffic volumes along National Boulevard and Washington Boulevard in the vicinity of the Project site. However, it is also worth noting that several physical improvements to the intersection of Washington Boulevard and National Boulevard are also planned for implementation prior to the addition of this traffic.

PROJECT TRAFFIC VOLUMES

The Proposed Project consists of 28,708 square feet of office use, 36,819 square feet of retail use, and 12,257 square feet of restaurant use. The Project would provide a 202-space multi-level parking structure (with ground floor retail) and a 77-space parking structure for an overall total supply of 279 parking spaces.

Utilizing the *Trip Generation – An ITE Information Report*, 8th Edition trip generation rates, the Proposed Project's trip generation was determined. Table 7 presents details of the Proposed Project's trip generation including type of use, size, applicable rates and trip generation estimates. Other calculations within the table also provide for adjustments due to transit, internal capture and pass-by trips. It is important to note that existing use trip reduction credit was not taken.

From Table 7, it can be observed that the Proposed Project's trip generation would result in a net total of approximately 2,360 daily trips of which 91 trips (71 trips inbound, 20 trips outbound) would occur during the morning peak hour and 200 trips (100 trips inbound, 100 trips outbound) would occur during the evening peak hour.

TABLE 7
ESTIMATED PROJECT TRIP GENERATION

	Size	Daily	AM Peak Hour			PM Peak Hour		
			IN	OUT	TOTAL	IN	OUT	TOTAL
Proposed Project								
Retail	36,819 s.f.	1,581	23	14	37	67	70	137
Restaurant	12,257 s.f.	1,103	5	5	10	62	30	92
Office	28,708 s.f.	510	61	8	69	7	36	43
Project Trip Generation Total		3,194	89	27	116	136	136	272
Transit Trip Use (7.5%) - Office		(38)	(5)	(1)	(6)	(1)	(3)	(4)
*Internal Capture (10%) Trip Credit		(316)	(8)	(3)	(11)	(14)	(13)	(27)
**Pass-By (20%) Trip Reduction - Retail/Restaurant		(483)	(5)	(3)	(8)	(21)	(20)	(41)
Project Trip Generation Net Total		2,357	71	20	91	100	100	200
Trip Rates [1]								
General Office (ITE Land Use 710)	Trips per 1,000 s.f.	[2]	88%	12%	[2]	17%	83%	1.49
Retail (ITE Land Use 820)	Trips per 1,000 s.f.	42.94	61%	39%	1.00	49%	51%	3.73
Restaurant (ITE Land Use 931)	Trips per 1,000 s.f.	89.95	50%	50%	0.81	67%	33%	7.49

* Internal capture credit taken after reduction of transit trips.
** Pass-by trip reduction taken after internal capture credits.

[1] *Trip Generation, An ITE Information Report*, 8th Edition, ITE 2008

[2] Daily and AM peak hour trip generation for office was calculated using the following formulas:

Daily: Ln(T) = 0.77 Ln(X) + 3.65
AM Peak Hour: Ln(T) = 0.80 Ln(X) + 1.55

Where:
Ln = Natural logarithm
T = Two-way volume of traffic (total trip-ends)
X = Area in 1,000 square feet gross floor area

Project Trip Distribution

The generalized trip distribution for Project trips was estimated to be the following based on current traffic patterns and land uses in the study area:

- To and From the North: 20%
- To and From the South: 15%
- To and From the East: 35%
- To and From the West: 30%

Intersection level trip distribution percentages are shown in Figure 7. Based on these distribution assumptions, location of the Project driveways, and trip generation from the Proposed Project, traffic estimates of project-only trips were developed. These project-only trips are presented in Figures 8A and 8B for the AM and PM peak hours, respectively.

CUMULATIVE (2014) PLUS PROJECT TRAFFIC VOLUMES

Utilizing the project-only traffic estimates developed for both AM and PM peak hours, traffic forecasts for the Future Year 2014 with Project conditions were developed. The Cumulative (2014) Base traffic forecasts were combined with the project-only traffic volumes to obtain the Future with Project traffic volume forecasts. The Future Year 2014 Cumulative plus Project traffic volumes during both AM and PM peak hours are presented in Figures 9A and 9B, respectively.

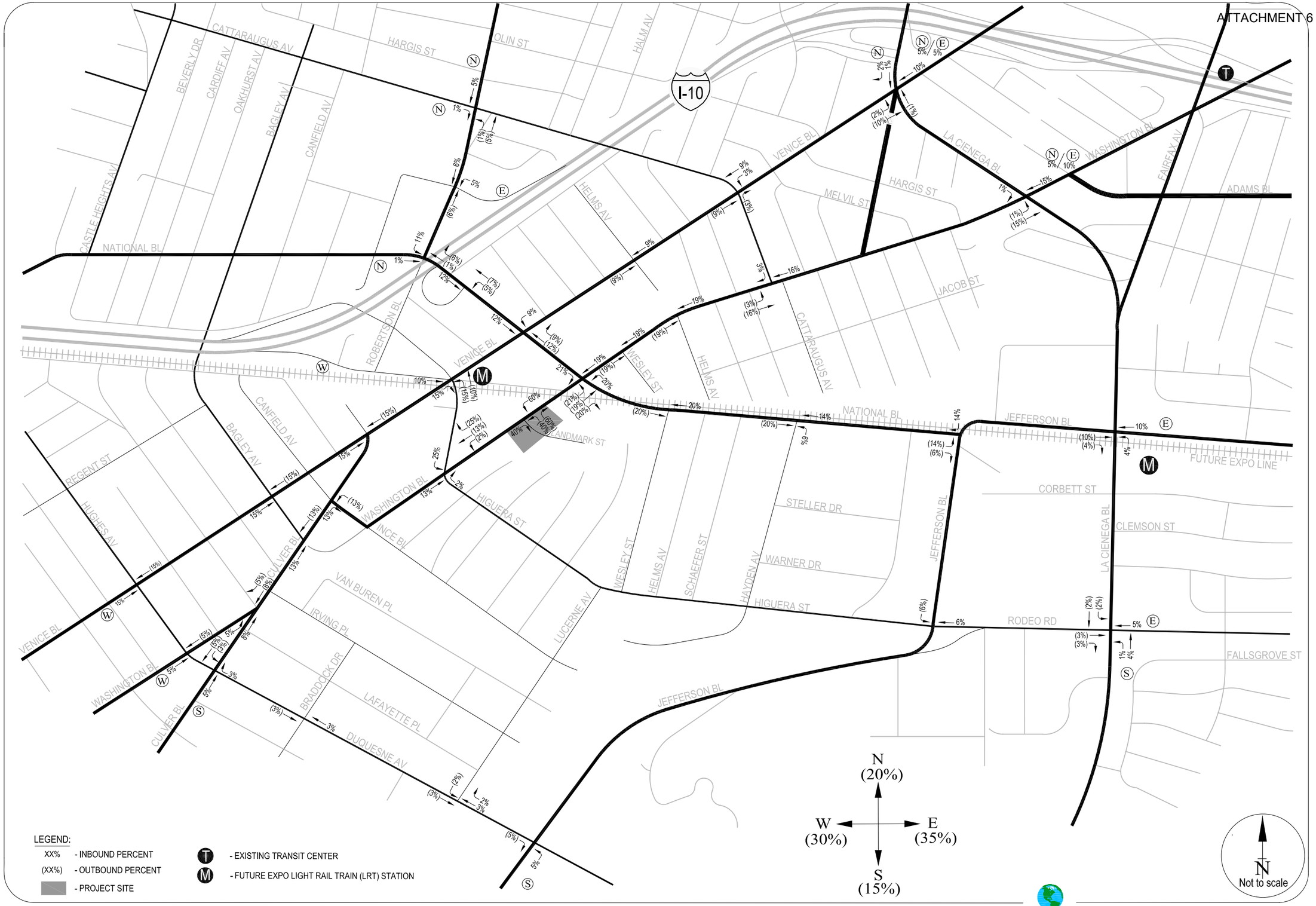


FIGURE 7
PROJECT TRIP DISTRIBUTION

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FIGURE 8A
PROJECT ONLY AM PEAK HOUR TRAFFIC VOLUMES

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FIGURE 8B
PROJECT ONLY PM PEAK HOUR TRAFFIC VOLUMES

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FIGURE 9A
CUMULATIVE (2014) PLUS AM PROJECT PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc

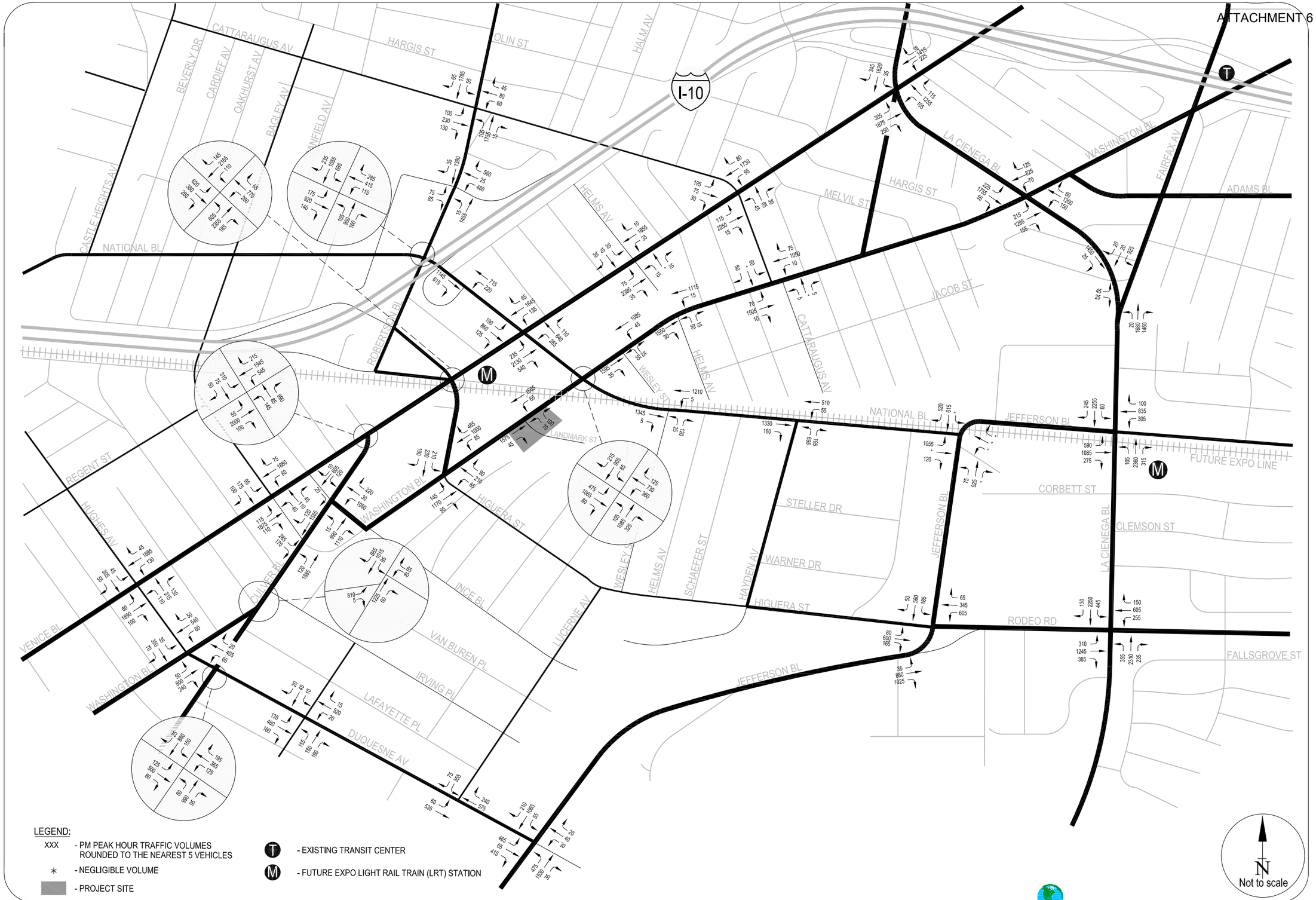


FIGURE 9B
CUMULATIVE (2014) PLUS PM PROJECT PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc

IV. FUTURE YEAR 2014 TRAFFIC CONDITIONS & IMPACT ANALYSIS

The Future Year 2014 Cumulative Base and Cumulative plus Project conditions were analyzed utilizing the methodologies and assumptions per the City of Culver City traffic study guidelines. The results were then used to assess the potential impact of the proposed project on the local street system.

The traffic impact analysis compares the volume to capacity (V/C) ratios at each study location under the cumulative base and cumulative plus project conditions to determine the incremental difference in V/C ratios caused by the proposed project. This provides the information needed to assess the potential impact of the project using significance criteria established by the Cities of Culver City and Los Angeles.

SIGNIFICANT TRAFFIC IMPACT CRITERIA

City of Culver City Significant Impact Criteria

For intersections under the City of Culver City jurisdiction, the City of Culver City has established threshold criteria for determining the significance of impacts of a project at a specific location. According to the criteria provided by the City of Culver City, a project impact is considered significant if the following conditions are met:

Intersection Condition With Project Traffic		Project-Related Increase in V/C Ratio
LOS	V/C Ratio	
D	0.801 – 0.900	equal to or greater than 0.040
E, F	> 0.900	equal to or greater than 0.020

Using these criteria, for example, a project would not have a significant impact at an intersection if it is operating at LOS D after the addition of project traffic and the incremental change in the V/C ratio is less than 0.040. However, if the intersection is operating at LOS F after the addition of

project traffic and the incremental change in the V/C ratio is 0.020 or greater, the project would be considered to have a significant impact.

At unsignalized intersections, the levels of service for conditions with and without the project are determined using the Highway Capacity Manual Methodology. Additionally, the V/C ratios at these locations are computed and the incremental changes in V/C ratio due to the proposed project are determined. Both the delay (and corresponding LOS) and V/C ratio are reported in the level of service summary tables. Next, using the same sliding scale shown in significance criteria stated for the signalized intersections, the unsignalized intersections significant impacts are identified.

City of Los Angeles Significant Impact Criteria

Intersections under the jurisdiction of the City of Los Angeles are evaluated using threshold criteria[1] established by the City of Los Angeles to determine if a project has a significant traffic impact. According to the criteria provided by the City of Los Angeles, a project impact is considered significant if the following conditions are met:

Intersection Condition With Project Traffic		Project-Related Increase in V/C Ratio
LOS	V/C Ratio	
C	0.701 – 0.800	equal to or greater than 0.040
D	0.801 – 0.900	equal to or greater than 0.020
E, F	> 0.900	equal to or greater than 0.010

FUTURE BASE ROADWAY NETWORK IMPROVEMENTS

The roadway network for the future base conditions within the study area is affected by a number of regional improvement plans and improvements implemented by the Metro Exposition Light Rail Phase 1 Project (Related Project #29). These improvements are identified in the *Mid-City/Exposition LRT Project Final EIS/EIR*, Los Angeles Metropolitan Transportation Authority/U.S. Department of Transportation, Federal Transit Administration, October 2005 and have been verified by the City of Culver City. These improvements are included in the following page.

[1] *L.A. CEQA Thresholds Guide: Your Resource for Preparing CEQA Analysis in Los Angeles*, City of Los Angeles, 2006.

- Venice Boulevard between Robertson Boulevard/Exposition Boulevard and Ivy Street - The improvement along this street segment would include widening the north side of Venice Boulevard from approximately 500 feet west of Robertson Boulevard/Exposition Boulevard easterly to Ivy Street. The south side of Venice Boulevard would also be widened, including reconfiguration of the median islands, from Exposition Boulevard to approximately 500 feet west of Robertson Boulevard/Exposition Boulevard. This improvement would not result in any changes in lane configurations or operations from existing conditions at the intersection of Robertson Boulevard/Venice Boulevard.

- Venice Boulevard/National Boulevard - The improvement at this location would include the addition of a second left-turn lane and exclusive right-turn lane on the eastbound and westbound approaches. Both the eastbound and westbound approach would then provide dual left-turn lanes, three through lanes, and a separate right-turn lane. This improvement is in addition to the Venice Boulevard widening described above.

- National Boulevard/Washington Boulevard – The westbound approach on Washington Boulevard would be improved at this location to include a shared through/right-turn lane. This improvement would be accomplished by restriping the westbound right-turn lane to a shared through/right-turn lane. The westbound approach would then provide a left-turn lane, two through lanes, and a shared through/right-turn lane.

- Hayden Avenue/National Boulevard – The eastbound approach on National Boulevard would be improved at this location to include an exclusive right-turn lane. This improvement will be accomplished by modifying the existing raised median along National Boulevard to provide a separate right-turn lane on the eastbound approach. The eastbound approach would then provide two through lanes and a separate right-turn lane.

- Jefferson Boulevard/National Boulevard – The improvement at this location would reconstruct the existing intersection to provide a private driveway on the westbound approached with a single shared left/through/right-turn lane. The northbound approach would be constructed to provide a left-turn lane (from Jefferson Boulevard to westbound National Boulevard), two through lanes and a separate right-turn lane into the private driveway. The southbound approach would be reconfigured to provide a left-turn lane into the private driveway, a through lane, and a separate right-turn lane (to westbound National Boulevard). The eastbound approach would be reconfigured to provide two through lanes (including access to the private driveway) and a separate right-turn lane.

- La Cienega Boulevard/Jefferson Boulevard - The improvement at this location would modify the eastbound/westbound traffic signal operations to provide permissive left-turn phasing.

- La Cienega Boulevard/Rodeo Road - The westbound approach on Rodeo Road would be improved at this location to provide a second left-turn lane. The westbound approach would then provide dual left-turn lanes, two through lanes, and a separate right-turn lane.

In addition to the Metro Exposition Light Rail Project improvements described above, the City of Culver City has identified other future roadway improvements within the study area. These improvements include the following:

- Robertson Boulevard-Higuera Street/Washington Boulevard – The City of Culver City has identified an improvement at this location to convert the existing northbound shared through/right-turn lane to an exclusive right-turn lane. The northbound approach would be restriped to provide a left-turn lane, a through lane, and a separate right-turn lane. The northbound departure would also be striped to one lane.

- National Boulevard between Venice Boulevard and Washington Boulevard – As part of the Triangle Site Project (Related Project #39), located on the northwest corner of the intersection of National Boulevard/Washington Boulevard, the City of Culver City intends to dedicate and widen the west side of National Boulevard between Venice Boulevard and Washington Boulevard by 10 feet to provide a 72-foot roadway. All on-street parking along this segment would be removed to accommodate bicycles lanes on both sides of the street. No additional travel lanes have been proposed.

These roadway improvements are included in both the Cumulative (2014) Base conditions and Cumulative (2014) plus Project conditions analyses and would improve/increase the overall capacity of the future roadway network. The traffic effects due to the improvement at Jefferson Boulevard/National Boulevard have been included in the Cumulative (2014) Base conditions and Cumulative (2014) plus Project conditions analyses. The future lane configurations of the analyzed intersections are included in Appendix B.

It worth noting that there are other long-term improvements planned in the study area including improvements to the Santa Monica (I-10) Freeway Ramps at Robertson Boulevard, auxiliary lane improvements to the Santa Monica (I-10) Freeway, and improvements to the Santa Monica (I-10)/San Diego (I-405) Freeway interchange. These improvements are not anticipated to be completed within the study timeframe (Year 2014), and, therefore, were not included in the future conditions.

The Metro Exposition Light Rail Train (LRT) Phase 1 Project is providing local and regional improvements within the study area. Phase 1 of the Metro Exposition LRT Project is an 8.5-mile corridor project providing light rail train service from Downtown Los Angeles to the Westside and Culver City that would be operated by Metro. Within the study area, the Exposition LRT will provide service parallel to Jefferson Boulevard and National Boulevard. Ten new stations will be

provided along the route from the existing Metro Rail station at 7th Street/Metro Center in Downtown Los Angeles to the Venice/Robertson Station in Culver City. The route alignment will be all above-grade within the study area. The LRT project includes aerial stations at Expo/La Brea, La Cienega/Jefferson, and Venice/Robertson Stations. Phase 1 is expected to be completed by 2012. Phase 2 of the Metro LRT Project will provide service from Culver City to Santa Monica and is expected to be completed by 2015.

Two of the LRT Phase 1 stations, Venice/Robertson Station and La Cienega/Jefferson Station, are located within the study area. The Proposed Project is located across the street from the Venice/Robertson Station. The Venice/Robertson Station will also provide some parking spaces for park-and-ride patrons. Driveways to the Venice/Robertson Station's parking lot will be located along National Boulevard and Washington Boulevard.

The La Cienega/Jefferson Station will be located on the southeast corner of the La Cienega Boulevard/Jefferson Boulevard intersection. This station also provides park-and-ride possibilities at a parking structure located adjacent to it. Driveways to this station's park-and-ride facility are proposed along La Cienega Boulevard and Jefferson Boulevard.

CUMULATIVE (2014) BASE TRAFFIC CONDITIONS

The Cumulative (2014) Base without proposed project peak hour traffic volumes were analyzed at each of the study intersections to determine the V/C ratio (or delay in seconds) and corresponding level of service. Table 8 presents the results of the Year 2014 Cumulative Base (without project) traffic analysis. As indicated in the table, 17 of the 34 analyzed intersections are projected to operate at LOS D or better during the morning peak hour. During the evening peak hour, 19 of the 34 analyzed intersections are projected to operate at LOS D or better. Eighteen of the 34 intersections are projected to be operating at LOS E or F during the morning and/or evening peak hours and include the following:

- Robertson Boulevard/Cattaraugus Avenue: AM and PM Peak Hour – LOS E
- Robertson Boulevard/National Boulevard: AM and PM Peak Hour – LOS F
- Culver Boulevard/Venice Boulevard: PM Peak Hour – LOS E

TABLE 8
SUMMARY OF INTERSECTION LEVEL OF SERVICE ANALYSIS - FUTURE CONDITIONS

Map #	INTERSECTION		Peak Hour	Cumulative (2014) Base Conditions V/C	Cumulative (2014) Base Conditions LOS	Cumulative (2014) Plus Project Conditions V/C	Cumulative (2014) Plus Project Conditions LOS	Increase in V/C	Significant Impact
1	Robertson Boulevard	Cattaraugus Avenue [1]	AM	0.948	E	0.949	E	0.001	No
			PM	0.933	E	0.936	E	0.003	No
2	Robertson Boulevard	I-10 WB Off-Ramp/Kincardine Avenue [1]	AM	0.797	C	0.801	D	0.004	No
			PM	0.809	D	0.815	D	0.006	No
3	Robertson Boulevard	National Boulevard [1]	AM	1.049	F	1.053	F	0.004	No
			PM	1.042	F	1.047	F	0.005	No
4	National Boulevard	I-10 Eastbound On-Ramp [1]	AM	0.415	A	0.415	A	0.000	No
			PM	0.454	A	0.457	A	0.003	No
5	Hughes Avenue	Venice Boulevard [1]	AM	0.841	D	0.843	D	0.002	No
			PM	0.767	C	0.771	C	0.004	No
6	Bagley Avenue	Venice Boulevard [1]	AM	0.789	C	0.791	C	0.002	No
			PM	0.763	C	0.767	C	0.004	No
7	Culver Boulevard	Venice Boulevard [1]	AM	0.849	D	0.852	D	0.003	No
			PM	0.957	E	0.961	E	0.004	No
8	Robertson Boulevard	Venice Boulevard [1]	AM	1.461	F	1.462	F	0.001	No
			PM	1.430	F	1.434	F	0.004	No
9	National Boulevard	Venice Boulevard [1]	AM	1.038	F	1.043	F	0.005	No
			PM	1.013	F	1.021	F	0.008	No
10	Helms Avenue	Venice Boulevard [1]	AM	0.527	A	0.528	A	0.001	No
			PM	0.515	A	0.517	A	0.002	No
11	Cattaraugus Avenue	Venice Boulevard [1]	AM	0.863	D	0.865	D	0.002	No
			PM	0.723	C	0.727	C	0.004	No

TABLE 8 (continued)
SUMMARY OF INTERSECTION LEVEL OF SERVICE ANALYSIS - FUTURE CONDITIONS

Map #	INTERSECTION		Peak Hour	Cumulative (2014) Base Conditions V/C	Cumulative (2014) Base Conditions LOS	Cumulative (2014) Plus Project Conditions V/C	Cumulative (2014) Plus Project Conditions LOS	Increase in V/C	Significant Impact
12	La Cienega Boulevard	Venice Boulevard [1,2]	AM	1.083	F	1.085	F	0.002	No
			PM	1.066	F	1.069	F	0.003	No
13	Hughes Avenue/Duquesne Avenue	Washington Boulevard	AM	0.641	B	0.641	B	0.000	No
			PM	0.653	B	0.654	B	0.001	No
14	Duquesne Avenue	Culver Boulevard	AM	0.760	C	0.762	C	0.002	No
			PM	0.886	D	0.891	D	0.005	No
15	Culver Boulevard	Washington Boulevard/Irving Place	AM	0.618	B	0.620	B	0.002	No
			PM	0.635	B	0.638	B	0.003	No
16	Main Street	Culver Boulevard	AM	0.581	A	0.582	A	0.001	No
			PM	0.613	B	0.613	B	0.000	No
17	Culver Boulevard	Washington Boulevard	AM	0.782	C	0.783	C	0.001	No
			PM	0.752	C	0.756	C	0.004	No
18	Robertson Boulevard/Higuera Street	Washington Boulevard	AM	0.975	E	0.990	E	0.015	No
			PM	0.816	D	0.847	D	0.031	No
19	Landmark Street	Washington Boulevard	AM	0.601	B	0.610	B	0.009	No
			PM	0.514	A	0.599	A	0.085	No
20	National Boulevard	Washington Boulevard	AM	0.946	E	0.963	E	0.017	No
			PM	0.925	E	0.947	E	0.022	**Yes**
						with Mitigation Measure [5]			
			AM			0.913	E	-0.033	No
			PM			0.897	D	-0.028	No
						with Mitigation Measure - Alternative [5]			
			AM			0.933	E	-0.013	No
			PM			0.917	E	-0.008	No

TABLE 8 (continued)
SUMMARY OF INTERSECTION LEVEL OF SERVICE ANALYSIS - FUTURE CONDITIONS

Map #	INTERSECTION		Peak Hour	Cumulative (2014) Base Conditions V/C	Cumulative (2014) Base Conditions LOS	Cumulative (2014) Plus Project Conditions V/C	Cumulative (2014) Plus Project Conditions LOS	Increase in V/C	Significant Impact
21	Wesley Avenue	Washington Boulevard [3]	AM	134.9 sec	F	138.9 sec	F	0.005	No
			PM	484.0 sec	F	521.5 sec	F	0.008	No
			AM	0.768	[6]	0.773	[6]	-	-
			PM	0.781	[6]	0.789	[6]	-	-
22	Helms Avenue	Washington Boulevard	AM	0.563	A	0.568	A	0.005	No
			PM	0.503	A	0.509	A	0.006	No
23	Cattaraugus Avenue	Washington Boulevard [3]	AM	*** sec	F	*** sec	F	0.007	No
			PM	709.6 sec	F	778.5 sec	F	0.016	No
			AM	1.030	[6]	1.037	[6]	-	-
			PM	0.898	[6]	0.914	[6]	-	-
24	La Cienega Boulevard	Washington Boulevard	AM	1.199	F	1.203	F	0.004	No
			PM	0.990	E	0.996	E	0.006	No
25	La Cienega Boulevard	Fairfax Avenue [1]	AM	1.060	F	1.060	F	0.000	No
			PM	0.898	D	0.898	D	0.000	No
26	Wesley Street	National Boulevard	AM	0.710	C	0.715	C	0.005	No
			PM	0.472	A	0.479	A	0.007	No
27	Hayden Avenue	National Boulevard	AM	0.640	B	0.643	B	0.003	No
			PM	0.738	C	0.747	C	0.009	No
28	Jefferson Boulevard	National Boulevard [1]	AM	1.002	F	1.009	F	0.007	No
			PM	0.752	C	0.757	C	0.005	No
29	La Cienega Boulevard	Jefferson Boulevard [1,2]	AM	1.278	F	1.280	F	0.002	No
			PM	1.205	F	1.210	F	0.005	No
30	Jefferson Boulevard	Higuera Street/Rodeo Road [1]	AM	0.755	C	0.758	C	0.003	No
			PM	0.781	C	0.790	C	0.009	No

TABLE 8 (continued)
SUMMARY OF INTERSECTION LEVEL OF SERVICE ANALYSIS - FUTURE CONDITIONS

Map #	INTERSECTION		Peak Hour	Cumulative (2014) Base Conditions V/C	Cumulative (2014) Base Conditions LOS	Cumulative (2014) Plus Project Conditions V/C	Cumulative (2014) Plus Project Conditions LOS	Increase in V/C	Significant Impact
31	La Cienega Boulevard	Rodeo Road [1]	AM	1.217	F	1.219	F	0.002	No
			PM	1.248	F	1.251	F	0.003	No
32	Braddock Drive	Duquesne Avenue [4]	AM	227.9 sec	F	229.1 sec	F	0.001	No
			PM	158.5 sec	F	160.3 sec	F	0.003	No
			AM	1.185	[6]	1.186	[6]	-	-
			PM	1.325	[6]	1.328	[6]	-	-
33	Lucerne Avenue	Duquesne Avenue [4]	AM	51.7 sec	F	52.2 sec	F	0.002	No
			PM	66.8 sec	F	68.4 sec	F	0.005	No
			AM	0.939	[6]	0.941	[6]	-	-
			PM	1.052	[6]	1.057	[6]	-	-
34	Jefferson Boulevard	Duquesne Avenue	AM	1.211	F	1.215	F	0.004	No
			PM	1.030	F	1.034	F	0.004	No

*** Intersection delay cannot be calculated.
[1] City of Los Angeles location.
[2] Los Angeles County Congestion Management Program (CMP) monitoring location.
[3] Unsignalized intersections - stop-controlled on minor approach(es).
[4] Unsignalized intersections - stop-controlled on all approach.
[5] The Project requires only a small increment of V/C improvement to alleviate the significance of its impact (0.003 or 0.3% V/C improvement) during the PM peak hour. No significant impact occurs during the AM peak hour and therefore, no V/C improvement is required.
[6] V/C ratio was calculated, based on signalized LOS methodology, to determine project impacts.

- Robertson Boulevard/Venice Boulevard: AM and PM Peak Hour – LOS F
- National Boulevard/Venice Boulevard: AM and PM Peak Hour – LOS F
- La Cienega Boulevard/Venice Boulevard: AM and PM Peak Hour–LOS F
- Robertson Boulevard-Higuera Street/Washington Boulevard: AM Peak Hour – LOS E
- National Boulevard/Washington Boulevard: AM and PM Peak Hour – LOS E
- Wesley Street/Washington Boulevard: AM and PM Peak Hour – LOS F
- Cattaraugus Avenue/Washington Boulevard: AM and PM Peak Hour – LOS F
- La Cienega Boulevard/Washington Boulevard: AM Peak Hour – LOS F; PM Peak Hour - LOS E
- La Cienega Boulevard/Fairfax Avenue: AM Peak Hour – LOS F
- Jefferson Boulevard/National Boulevard: AM Peak Hour – LOS F
- La Cienega Boulevard/Jefferson Boulevard: AM and PM Peak Hour – LOS F
- La Cienega Boulevard/Rodeo Road: AM and PM Peak Hour – LOS F
- Braddock Drive/Duquesne Avenue: AM and PM Peak Hour – LOS F
- Lucerne Avenue/Duquesne Avenue: AM and PM Peak Hour – LOS F
- Jefferson Boulevard/Duquesne Avenue: AM and PM Peak Hour – LOS F

Capacity calculation worksheets for Cumulative (2014) Base conditions are attached in Appendix E of the report.

CUMULATIVE (2014) PLUS PROJECT TRAFFIC CONDITIONS

The Cumulative (2014) plus Project peak hour traffic volumes were analyzed to determine the volume to capacity (V/C) ratio (or delay in seconds) and LOS at each of the analyzed intersections. The results of this analysis are also summarized on Table 8. Table 8 indicates that traffic generated by the Project would not change the intersection levels of service from cumulative base conditions at 33 of the 34 study intersections. Addition of the Project traffic would change the level of service at one of the study intersections.

The intersection of Robertson Boulevard/I-10 Westbound Off-Ramp-Kincardine Avenue would operate at a LOS D under Cumulative (2014) plus Project conditions compared to a high LOS C under Cumulative (2014) Base conditions during the morning peak hour.

Capacity calculation worksheets for Cumulative (2014) Plus Project conditions are attached in Appendix F of the report.

PROJECT IMPACTS

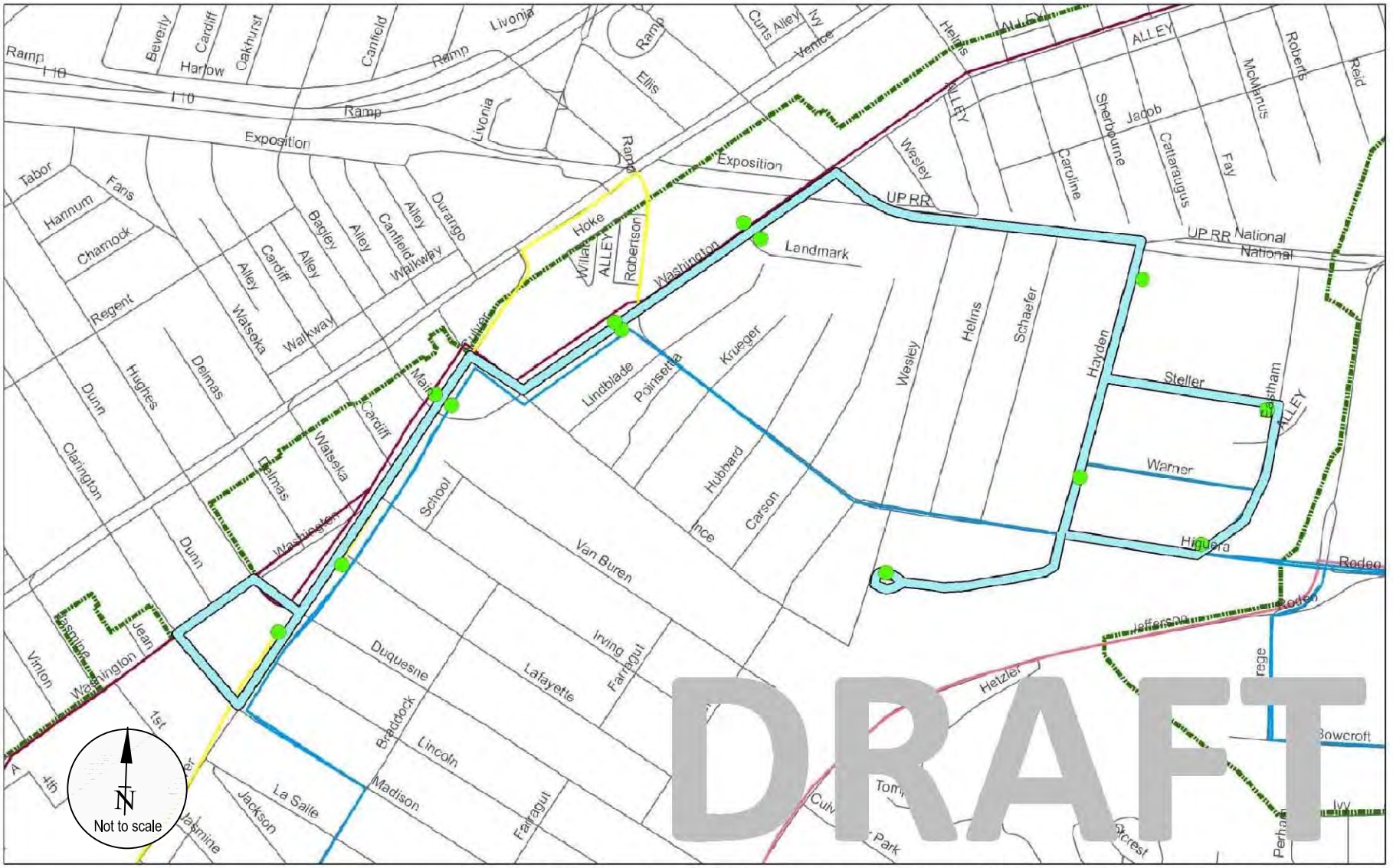
Using the specified significant impact criteria in the jurisdictions involved, traffic impacts at the analysis locations were determined. Table 8 identifies the individual impacts during both AM and PM peak hours at each of the analysis locations. It was estimated that one of the 34 analyzed intersections would be significantly impacted by the Proposed Project. It can be observed that the intersection of National Boulevard/Washington Boulevard would be significantly impacted during the evening peak hour by the traffic effects of the Proposed Project. The Project's impact exceeds the threshold for significant impact by an incremental volume-to-capacity ratio of 0.003 or 0.3%. Therefore, intersection level mitigation measures at this location would be required for the Proposed Project.

Note that for the stop-controlled intersection, both the delay and V/C ratio are reported in order to identify significant impacts. The delay is used to determine the level of service and the V/C is used to determine the incremental difference in V/C ratios to assess the impact caused by the Proposed Project.

RECOMMENDED MITIGATION MEASURES

In order to address the Project's impact at the intersection of National Boulevard/Washington Boulevard, the following mitigation measure is recommended:

- The Project shall contribute its fair share towards implementation of a shuttle system service connecting the residential and commercial areas in Downtown Culver City and Hayden Tract areas to and from the Venice/Robertson Light Rail Train (LRT) Station on the Exposition Line (see Figure 10). Figure 10 shows the preliminary recommended route for this Culver City circulator service (Culver City Downtown/Culver Studios – Expo Culver City Station – Hayden Tract). This route will traverse along Washington Boulevard with stops in both directions adjacent to the Proposed Project site. The schedules for these shuttles should be developed such that coordinated transfers to and from the rail station at Venice Boulevard/Robertson Boulevard are achieved. These shuttles would operate at enhanced frequencies (10 minute headways) and provide fast, convenient, and efficient connections to the Metro Exposition LRT Line.



Note: Route and stop locations are preliminary. Final route and stop locations to be confirmed.

SOURCE: CITY OF CULVER CITY

FIGURE 10
CULVER CITY CIRCULATOR SERVICE- PRELIMINARY ROUTE
CULVER CITY DOWNTOWN/CULVER STUDIOS-EXPO CULVER CITY STATION-HAYDEN TRACT

RAJU Associates, Inc.

In event that the shuttle program has not progressed sufficiently to warrant study funding, the following alternative mitigation measure shall be implemented:

- The Project shall contribute its fair share to the design and implementation of ATCS (Adaptive Traffic Control System) at the intersection of National Boulevard/Washington Boulevard. This includes provision of ATCS-associated signal equipment, additional loop detectors, communications set-up and the associated control PC hardware/software, if required. The ATCS is a PC-based traffic signal control program that provides full-response signal control based on real time traffic operating conditions. ATCS automatically adjusts and optimizes traffic signal timing in response to current traffic demands on the entire signal network such that the number of stops and the amount of delay are minimized along with improved traffic signal coordination throughout the network. The City of Culver City allows intersection capacity improvement of 3% with ATCS implementation.

It is also worth noting that the Project requires only a small increment of V/C improvement to alleviate the significance of its impact (0.003 or 0.3% V/C improvement) during the PM peak hour at the intersection of National Boulevard and Washington Boulevard. No significant impact occurs in the AM peak hour and therefore, no V/C improvement is required. The Triangle Project at the Venice/Robertson Station and other nearby future projects would also be able to utilize the overall V/C improvement that the shuttle system service (or implementation of ATCS) would provide. It is recommended that the City allow sharing of these important improvement measures to advance their implementation schedule.

Project Access Improvement

Additionally, to enhance project access, the applicant of the Proposed Project shall be required to design, and construct the westbound left-turn signal at the intersection of Washington Boulevard and Landmark Street and be responsible for all costs associated with the modification of the traffic signal. This would improve operations at this intersection such that potential queuing beyond the left-turn pocket at the intersection would be alleviated.

Effectiveness of Mitigation Measures

The potential effectiveness of the proposed shuttle bus mitigation measure is calculated using a widely-used methodology. This methodology has been approved in several jurisdictions including the City of Los Angeles (Playa Vista First Phase Project EIR and the Village at Playa Vista Project EIR) and the City of Pasadena (Lake at Colorado Mixed-Use Project EIR).

- A shuttle bus has a seating capacity of 25 people. The auto occupancy in this region is 1.2 persons per automobile. Therefore, a 25-seat shuttle bus has the potential capacity of 21 autos (25/1.2 = 21) or critical movement trips traversing the intersection depending upon the direction and the number of lanes available at the intersection for the critical movement that the bus is traveling in.

- The frequency of the bus service provides the number of buses traversing the proposed route in one hour. The proposed shuttle bus is expected to operate at 10 minute frequencies throughout the day or at a rate of 6 buses per hour. Therefore, a total capacity of 125 critical movement trips (25 x 6 / 1.2 = 125) will be offered by the proposed shuttle route at the impacted intersection of National Boulevard/Washington Boulevard.

- This capacity of 125 critical movement trips was applied in the CMA (Critical Movement Analysis) worksheet at the National Boulevard/Washington Boulevard intersection to arrive at the intersection V/C ratio and level of service for the 'traffic conditions with mitigation' scenario.

- The ATCS improvement is allowed an intersection capacity improvement of 3%. Therefore, with the implementation of ATCS, the National Boulevard/Washington Boulevard intersection V/C ratio is estimated to improve by 3% in the traffic conditions with the alternative mitigation scenario.

The results of the implementation of the recommended project-level improvements (including the alternative improvement) are summarized in Table 8. As indicated in the table, the recommended improvement (and alternative improvement) would fully mitigate the Project-related impact at the impacted intersection, National Boulevard/Washington Boulevard.

Capacity calculation worksheets for Cumulative (2014) plus Project with Mitigation conditions are attached in Appendix G.

It is also worth noting that this shuttle bus route would offer access to the Exposition LRT Line at the Venice/Robertson Station to the commercial and office uses along Washington Boulevard corridor including several large employers such as Sony Studios, Culver City City Hall, Culver

Studios and others, as well as the residential community adjacent to City Hall and the Hayden Tract area.

The applicant agrees to contribute $50,000 towards any costs associated with the implementation of the shuttle program, including a study to determine the benefits of a shuttle service, the City's administrative work and start-up costs. In addition, the applicant agrees to participate in an assessment district that will be formed to pay for the operation and maintenance of the shuttle service.

In event that the proposed shuttle is not implemented, the applicant agrees to contribute $50,000 towards any costs associated with the implementation of ATCS at the intersection of National Boulevard/Washington Boulevard, including the ATCS-associated signal equipment, additional loop detectors, communications set-up and the associated control PC hardware/software, if required.

V. STREET SEGMENT AND PARKING/ACCESS ANALYSIS

This chapter provides an analysis of roadway segments in the vicinity of the Project. This analysis is targeted towards assessment of potential neighborhood traffic intrusion impacts as a result of the Proposed Project. Additionally, parking evaluation on site and other access/circulation issues are addressed in this chapter. The parking evaluation consists of examining the proposed parking supply for the Project in relation to the parking requirements for the various uses proposed by the Project. The access and egress evaluation consists of a review of vehicular access and egress driveways to ascertain that adequate provisions are provided by the Project.

RESIDENTIAL STREET SEGMENT TRAFFIC IMPACT ANALYSIS

Working closely with the City of Culver City staff, eight roadway segment locations were identified for analysis and assessment of conditions with the Project. These street segments include:

- Lucerne Avenue between Duquesne Avenue and Ince Boulevard
- Lucerne Avenue between Ince Boulevard and Higuera Street
- Wesley Street between National Boulevard and Higuera Street
- Helms Avenue Street between National Boulevard and Higuera Street
- Schaefer Street between National Boulevard and Higuera Street
- Higuera Street between Washington Boulevard and Lucerne Avenue
- Higuera Street between Lucerne Avenue and Wesley Street
- Higuera Street between Wesley Street and Jefferson Boulevard

Existing Street Segment Traffic Volumes

Daily traffic counts were conducted in May 2010 and March 2011 using machine counters. Traffic counts collected in May 2010 were factored upward 1% per year to reflect existing 2011 conditions. The raw data for these traffic counts are included in Appendix C.

Existing daily traffic volumes are summarized in Table 9. As indicated in the table, the existing daily traffic volume on Lucerne Avenue between Duquesne Avenue and Ince Boulevard is 6,629 vehicles per day and the street segment between Ince Boulevard and Higuera Street carries 3,956 vehicles per day. The existing daily traffic volume on Wesley Street between National Boulevard and Higuera Street is 519 vehicles per day. The existing daily traffic volume on Helms Avenue between National Boulevard and Washington Boulevard is 497 vehicles per day. The existing daily traffic volume on Schaefer Avenue between National Boulevard and Washington Boulevard is 600 vehicles per day. The analyzed street segments along Higuera Street carry 6,540 vehicles per day on the east, between Wesley Street and Jefferson Boulevard, and 8,361 vehicles per day on the west, between Washington Boulevard and Lucerne Avenue.

Cumulative (2014) Base - Street Segment Traffic Volumes

Future daily traffic volumes were projected for the residential streets in a manner similar to that used for the intersections described earlier. Firstly, with the assumed completion date of 2014, the existing 2011 traffic volumes were adjusted upward by a factor of 3% (1% per year compounded annually) to reflect this area-wide regional growth. Secondly, from traffic generated by specific cumulative projects located within, or in the vicinity of, the study area were added to the existing plus ambient growth traffic to obtain the Cumulative (2014) Base traffic volumes. The resulting Cumulative (2014) Base street segment daily and peak hour traffic volumes are summarized in Table 9.

The daily traffic volume along the Helms Avenue and Schaefer Avenue study street segments increase by 3% due to future ambient growth and related projects. The Lucerne Avenue and Wesley Street analyzed street segments experienced a 7% to 8% daily traffic volume increase; while the Higuera Street analyzed street segments had a daily traffic increase of 14% to 17%. It was observed that the increase in traffic along Higuera Street is primarily due to the future planned projects along Hayden Place and Warner Drive.

TABLE 9
RESIDENTIAL STREET TRAFFIC ANALYSIS

Street Segment	Time Period	Two-Way Traffic Volume: Existing (2011) Conditions	Two-Way Traffic Volume: Cumulative (2014) Base Conditions	Two-Way Traffic Volume: Project Traffic	Two-Way Traffic Volume: Cumulative (2014) Plus Project	Project % Increase	Significant Impact
Lucerne Avenue	ADT	6,629	7,074	47	7,121	0.7%	No
between Duquesne Avenue and Ince Boulevard	AM	712	755	1	756	0.1%	No
	PM	760	803	4	807	0.5%	No
Lucerne Avenue	ADT	3,956	4,264	47	4,311	1.1%	No
between Ince Boulevard and Higuera Street	AM	446	476	1	477	0.2%	No
	PM	384	412	4	416	1.0%	No
Wesley Street	ADT	519	561	0	561	0.0%	No
between National Boulevard and Higuera Street	AM	60	63	0	63	0.0%	No
	PM	52	57	0	57	0.0%	No
Helms Avenue	ADT	497	512	0	512	0.0%	No
between National Boulevard and Higuera Street	AM	67	69	0	69	0.0%	No
	PM	45	46	0	46	0.0%	No
Schaefer Street	ADT	600	618	0	618	0.0%	No
between National Boulevard and Higuera Street	AM	61	63	0	63	0.0%	No
	PM	55	57	0	57	0.0%	No
Higuera Street	ADT	8,361	9,546	47	9,593	0.5%	No
between Washington Boulevard and Lucerne Avenue	AM	842	964	1	965	0.1%	No
	PM	743	851	4	855	0.5%	No
Higuera Street	ADT	6,760	7,761	0	7,761	0.0%	No
between Lucerne Avenue and Wesley Avenue	AM	769	875	0	875	0.0%	No
	PM	541	630	0	630	0.0%	No
Higuera Street	ADT	6,540	7,675	71	7,746	0.9%	No
between Wesley Avenue and Jefferson Boulevard	AM	696	809	4	813	0.5%	No
	PM	577	669	6	675	0.9%	No

Cumulative (2014) plus Project - Street Segment Traffic Volumes

Based on the distribution assumptions (included in Figure 7) and the daily trip generation estimates (approximately 2,360 daily trips) for the Proposed Project, daily traffic estimates of project-only trips were developed. It was determined that the Project would add 47 daily trips to Higuera Street between Washington Boulevard and Lucerne Avenue and both Lucerne Avenue analyzed street segments and would add 71 daily trips on Higuera Street between Wesley Street and Jefferson Boulevard. The Cumulative (2014) plus Project daily traffic volumes resulting from the addition of trips generated by the Proposed Project are shown in Table 9.

Street Segment Significant Impact Criteria

As outlined in the City of Culver City Traffic Study Criteria, the following specific threshold criteria for project impacts to any street segment detailed below were used in this study:

Projected Avenue Daily Traffic (ADT) with Project	Project-Related Increase in Average Daily (ADT) Volume
999 Less	120 or more
1,000 to 1,999	12% or more of final ADT
2,000 to 2,999	10% or more of final ADT
3,000 or more	8% or more of final ADT

Assessment of Significant Impacts

As shown in Table 9, the Proposed Project would increase the traffic on Lucerne Avenue roadway segment between Duquesne Avenue and Ince Boulevard by 0.7% on a daily basis and by 0.1% and 0.5% during the morning and evening peak hours, respectively. On Lucerne Avenue between Ince Boulevard and Higuera Street, the Proposed Project would increase traffic by 1.1% on a daily basis and by 0.2% during the morning peak hour and 1% during the evening peak hour. On Higuera Street between Washington Boulevard and Lucerne Avenue, the Proposed Project would increase traffic by 0.5% on a daily basis and by 0.1% during the morning peak hour and 0.5% during the evening peak hour. On Higuera Street between Wesley Street and Jefferson Boulevard, the Proposed Project would increase traffic by 0.9% on a daily basis and by 0.5% and 0.9% during the morning and evening peak hours, respectively.

The potential impacts of the Proposed Project traffic on the adjacent neighborhood residential streets were assessed using the City of Culver City criteria specified earlier in the chapter. The results of the analysis, which are summarized in Table 9, indicate that the Proposed Project would not have a significant impact on the residential streets in the local neighborhood.

PARKING EVALUATION

The Proposed Project consists of 28,708 square feet of office use, 36,819 square feet of retail use, and 12,257 square feet of restaurant use. The Project would provide a 202-space multi-level parking structure (with ground floor retail) and a 77-space parking structure for an overall total supply of 279 parking spaces. The Project site plan is shown in Figure 10.

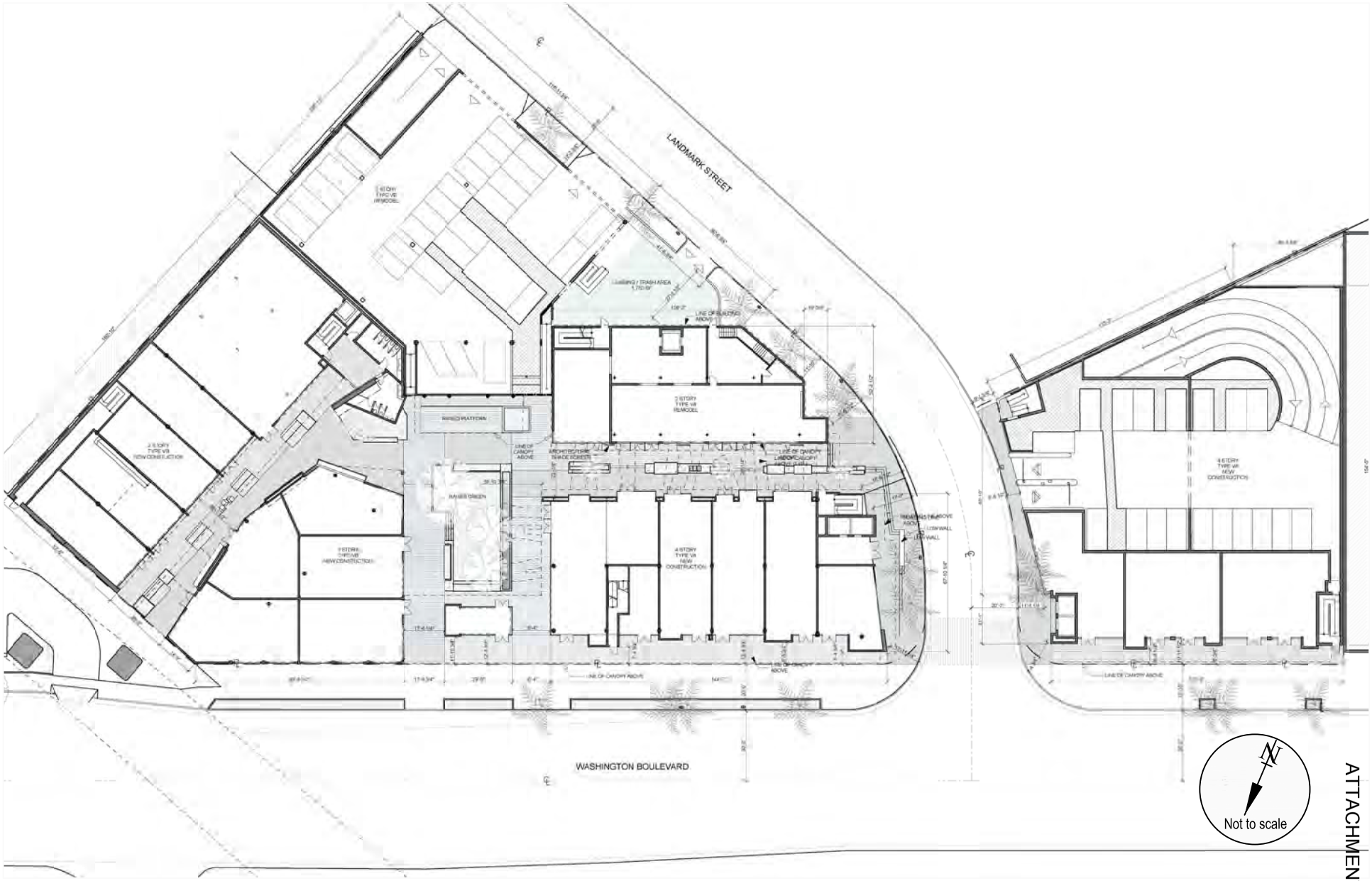
The following are the parking requirements contained within Section 17.320.020 Number of Parking Spaces Required established by the Culver City Municipal Zoning Code:

- Offices, Administrative, Corporate, Professional - 1 space per 350 G.S.F.
- Shopping Centers, Less than 5 acres in net parcel area – 1 space per 250 G.S.F.
- Restaurant, Located in shopping centers: Less than 25% of floor area of center for all restaurants – Parking requirement covered under the general requirement for shopping center.

Based on these requirements, the required parking for this project would be 278 spaces (office: 28,708 G.S.F. x 1 space/350 G.S.F. = 82 spaces, retail: 36,819 G.S.F x 1 space/250 G.S.F =147 spaces; restaurant: 12,257 G.S.F. x 1 space/250 G.S.F. = 49 spaces). The Project would provide a total 279 parking spaces. Therefore, there would be adequate parking for the Proposed Project.

ACCESS AND CIRCULATION

Driveways located along Landmark Street would provide access to the Project parking structures. One driveway would be located on the west side of the street providing access to the 202-space parking structure. Three driveways would be located on the east side of the



SOURCE: ABRAMSON TEIGER ACHITECTS

FIGURE 11
PROPOSED PROJECT SITE PLAN

RAJU Associates, Inc.

ATTACHMENT 6

street; two driveways providing access to the 77-space parking structure and the other driveway providing access to the loading/trash area. The existing driveways along Washington Boulevard to the site would be removed.

In the western 202-space parking structure, the typical parking spaces would be 18 feet deep X 8 ½ feet wide in size. The width of the parking aisles vary from approximately 34 ½ feet on the first floor to 27 feet to 28 feet wide on floors 2 through 5, with a 25-foot ramp to access the parking levels. The parking field would provide nine handicapped spaces. The driveway would include gate arms controlling the entrance and exit lanes.

In the 77-space eastern parking structure, the typical parking spaces would be 18 feet deep X 8 ½ feet wide in size. On the first floor, the width of the parking aisles vary from approximately 25 feet to 27 feet, with a 19 ½-foot ramp to access the second floor. On the second floor, the width of the parking aisles vary from approximately 19 feet to 30 feet, with a 20 ½-foot ramp to access the third floor. On the third floor, the width of the parking aisle varies from approximately 14 feet to 26 feet. This parking structure would provide four handicapped spaces.

A detailed review of the site plan was conducted and it was determined that the access driveway, all the parking aisles and parking spaces at all levels proposed as part of the Project would function adequately.

Summarizing, the project's parking, access and circulation systems would be adequate and they would all function satisfactorily.

VI. REGIONAL CONGESTION MANAGEMENT PROGRAM ANALYSIS

This section presents the Congestion Management Program (CMP) Transportation Impact analysis. This analysis was conducted in accordance with the procedures outlined in the *2010 Congestion Management Program for Los Angeles County* (Los Angeles County Metropolitan Transportation Authority, 2010). The CMP requires that when a traffic impact report is prepared for a project, traffic impact analyses be conducted for selected regional facilities based on the quantity of project traffic expected to use these facilities.

CMP TRAFFIC IMPACT ANALYSIS

The CMP guidelines for determining the study area of the analysis for CMP arterial monitoring intersections and for freeway monitoring locations are as follows:

- All CMP arterial monitoring intersections where the proposed project will add 50 or more trips during either the AM or PM weekday peak hours of adjacent street traffic.
- All CMP mainline freeway monitoring locations where the proposed project will add 150 or more trips, in either direction, during either the AM or PM weekday peak hours.

The CMP arterial monitoring intersections within a three-mile from the Project site includes the following:

- La Cienega Boulevard/Venice Boulevard – City of Los Angeles jurisdiction
- La Cienega Boulevard/Jefferson Boulevard – City of Los Angeles jurisdiction
- Centinela Avenue/Venice Boulevard – City of Los Angeles jurisdiction
- La Cienega Boulevard/Stocker Street – County of Los Angeles jurisdiction
- La Cienega Boulevard/Wilshire Boulevard – City of Beverly Hills jurisdiction
- Santa Monica Boulevard/Wilshire Boulevard – City of Beverley Hills jurisdiction
- Overland Avenue/Venice Boulevard – City of Culver City jurisdiction

Based on the incremental Project trip generation estimates presented in Chapter III, the Proposed Project is not expected to add 50 or more new trips per hour to any of these locations. Therefore, no further analysis of these CMP monitoring intersections would be required. However, two of the CMP arterial monitoring intersections listed above, La Cienega Boulevard/Venice Boulevard and La Cienega Boulevard/Jefferson Boulevard, have been included in the traffic analysis and it was determined that the Project would not have a significant intersection traffic impact at either of these locations.

The CMP mainline freeway monitoring locations within a three-mile radius from the Project site includes the following:

- Santa Monica (I-10) Freeway east of Overland Avenue
- Santa Monica (I-10) Freeway east of La Brea Avenue
- San Diego Freeway (I-405) north of Venice Boulevard

Based on the incremental Project trip generation estimates, the Proposed Project will not add 150 or more new trips per hour to these locations in either direction. Therefore, no further analysis of CMP freeway monitoring stations is required.

VII. SUMMARY OF CONCLUSIONS

This study was undertaken to assess existing traffic conditions, estimate future conditions with and without the proposed project, analyze potential traffic impacts of the Proposed Project, assess required improvements and identify/recommend project mitigation to alleviate the significant traffic impacts on the transportation system. Raju Associates, Inc. has performed this detailed study and the following summarizes the results of this analysis:

- Thirty-four intersections were analyzed within the study area for this project. These locations are within the study area bounded by Cattaraugus Avenue on the north, Jefferson Boulevard/Rodeo Road on the south, Hughes Avenue/Duquesne Avenue on the west and La Cienega Boulevard on the east. Of the 34 intersections, 17 intersections are located within the City of Culver City and 17 intersections within the City of Los Angeles.

- Currently, 24 of the 34 analyzed intersection locations are operating at acceptable levels of service (LOS) D or better during the morning peak hour. During the evening peak hour, 26 of the 34 analyzed intersections are operating at LOS D or better. The remaining intersections are operating at LOS E or F.

- In the Cumulative (Year 2014) Base conditions, i.e., future conditions without the implementation of the Proposed Project, 17 of the 34 analyzed intersection locations are projected to continue to operate at LOS D or better during the morning peak hour. During the evening peak hour, 19 of the 34 analyzed intersections are projected to operate at LOS D or better. The remaining intersections are projected to operate at LOS E or F.

- The Proposed Project would consist of 28,708 square feet of office use, 36,819 square feet of retail use, and 12,257 square feet of restaurant use. The Project is estimated to generate a net total of approximately 91 trips during the morning peak hour and 200 trips during the evening peak hour.

- In the Cumulative (Year 2014) plus Project conditions, both the AM and PM peak hour operating conditions would be similar to those projected for the Cumulative (2014) Base conditions.

- The Cumulative (Year 2014) plus Project conditions indicate that the Proposed Project would cause a significant traffic impact at the intersection of National Boulevard and Washington Boulevard during the evening peak hour. The Project's impact exceeds the threshold for significant impact by an incremental volume-to-capacity ratio of 0.003 or 0.3%. No significant impact would occur at any of the other analyzed intersections.

- In order to address the Project's impact at the intersection of National Boulevard/Washington Boulevard, the following mitigation measure is recommended:

  The Project shall contribute its fair share towards implementation of a shuttle system connecting the residential and commercial areas in Downtown Culver City and Hayden Tract areas to and from the Venice/Robertson Light Rail Train (LRT) Station on the Exposition Line. This shuttle system will include shuttle buses with stops along Washington Boulevard. The schedules for these shuttles should be developed such that coordinated transfers to and from the rail station at Venice/Robertson are achieved. These shuttles would operate at enhanced frequencies during the peak commuter time periods and provide fast, convenient, and efficient connections to the Metro Exposition LRT Line.

  In event that the proposed shuttle program has not progressed sufficiently to warrant study funding, the following alternative mitigation measure shall be implemented:

  The Project shall contribute its fair share towards the design and implementation of ATCS (Adaptive Traffic Control System) at the intersection of National Boulevard/Washington Boulevard. This includes provision of ATCS-associated signal equipment, additional loop detectors, communications set-up and the associated control PC hardware/software, if required.

  Additionally, to improve access to the Proposed Project's parking facilities along Landmark Street, the applicant of the Proposed Project shall be required to design, and construct the westbound left-turn signal at the intersection of Washington Boulevard and Landmark Street and be responsible for all costs associated with the modification of the traffic signal.

- Parking, access and circulation systems were assessed as part of this study. A review of the proposed site plan was also conducted. This review indicates that they would all function adequately and that there would be no adverse impact from the Proposed Project.

APPENDICES

A MEMORANDUM OF UNDERSTANDING
B INTERSECTION LANE CONFIGURATIONS
C TRAFFIC COUNTS
D CAPACITY CALCULATION WORKSHEETS – EXISTING (2011) CONDITIONS
E RELATED PROJECTS TRIP GENERATION RATES / CAPACITY CALCULATION WORKSHEETS – CUMULATIVE (2014) BASE CONDITIONS
F CAPACITY CALCULATION WORKSHEETS – CUMULATIVE (2014) PLUS PROJECT CONDITIONS
G CAPACITY CALCULATION WORKSHEETS – CUMULATIVE (2014) PLUS PROJECT WITH MITIGATION MEASURES

APPENDIX A

Memorandum of Understanding (MOU)

Attachment A
Memorandum Of Understanding For Traffic Study

This Memorandum of Understanding (MOU) acknowledges and agrees to all of the City of Culver City requirements and fees for the preparation of a traffic study for the following project:

Project Name: The Platform @ Culver Station

Project Address: 8810-40-50 Washington Boulevard/3920 Landmark Street, Culver City, CA

Project Description: 28,708 s.f. GFA Office / _____ GFA Industrial
36,819 s.f. GFA Retail / _____ Residential Units
12,257 s.f. GFA Restaurant / _____ GFA Other

* Gross Floor Area (GFA) shall be as defined in the most recent ITE publication.

Project Horizon Year: 2014 Ambient Growth Rate: One (1.0) % Per Year

Directional Distribution: N: 20 % S: 15% % E: 35 % W: 30 %

[Attach map(s) illustrating directional distribution percentages at all intersections and driveways.] **Please see Figure C.**

Trip Generation Rate(s): ITE Latest Edition / Other: **Please see Attachment A.**

Land Use:			
	ITE Code #:	ITE Code #:	
	In / Out	In / Out	Total In / Total Out
AM Trips:	_____ / _____	_____ / _____	_____ / _____
PM Trips:	_____ / _____	_____ / _____	_____ / _____

Use additional pages if necessary.

Prior to the start of any proposed project analysis, the Traffic Consultant shall:

1) Obtain a list of related projects from the City of Culver City Planning Division and from all other affected jurisdictions;
2) Prepare a draft list of "related projects specific to the proposed project"; and **Please see Attachment B.**
3) Obtain written approval from the City of the "related projects specific to the proposed project" list.

Intersections To Be Studied: **34 intersections, please see Attachment C.**

No.	Intersection:	/ Jurisdiction:
1.		/
2.		/
3.		/
4.		/
5.		/
6.		/
7.		/
8.		/
9.		/
10.		/

Use additional pages if necessary. Additionally, indicate any intersections that are subject to capacity analysis credit for advanced traffic signal control synchronization. Indicate any non-signalized intersections to be studied.

Residential Streets To Be Studied

No.	Street Segment:	/ Jurisdiction:
1.	Lucerne Avenue between Duquesne Av and Ince Bl	/ Culver City
2.	Lucerne Avenue between Ince Bl and Higuera St	/ Culver City
3.	Wesley Street between Higuera St and National Bl	/ Culver City
4.	Helms Avenue between Higuera St and National Bl	/ Culver City
5.	Schaeffer Street between Higuera St and National Bl	/ Culver City
6.	Higuera Street between Washington Bl and Lucerne Av	/ Culver City
7.	Higuera Street between Lucerne Av and Wesley St	/ Culver City
8.	Higuera Street between Wesley St and Jefferson Bl	/ Culver City
9.		/
10.		/

Use additional pages if necessary. Additionally, all intersection and street segment traffic count data shall be submitted both in written format and in an electronic format acceptable to the City.

Indicate trip credits to be requested (Amount subject to City approval):	Yes	No
1. Existing Uses:	□	X
2. Pass-By Trips:	X	□
3. Internal Trip Capture:	X	□
4. Transit Oriented Developments (TOD):	X	□
5. Transportation Demand Management (TDM):	□	X

Proposed Traffic Mitigation

Any proposed traffic mitigation measure shall be listed and accompanied by a drawing of the existing and proposed improvements [including city boundary lines and existing / proposed property lines] and plans shall be of a minimum scale of one inch (1") equal to forty feet (40'-0").

Post-Occupancy Traffic Counts

By signing below, the Property Owner / Developer / Applicant hereby agrees to pay for and submit to the City a post-occupancy traffic count analysis of the development to the satisfaction of the City. The analysis shall determine the amount of actual traffic generated by the development compared to the ITE trip generation rates. The analysis shall include traffic counts of all onsite driveways to be taken upon reaching eighty five percent (85.0%) occupancy of the total building gross floor area or within one (1) year of the issuance of the first Temporary Certificate of Occupancy (TCO), as determined by the City. The data shall be used to confirm the findings in the approved traffic study, and shall not result in any additional traffic mitigation measures and/or conditions of approval on the subject project.

Congestion Management Plan (CMP)

This project shall also be subject to all City imposed CMP developer fees if the Planning Commission approval date is on or after the effective date of any City Council imposed CMP developer fees or as may be otherwise imposed by the City.

City of Culver City Traffic Study Criteria
Page 3

Signatures

	Property Owner / Applicant:	Developer / Applicant:
Name [Signed]:		
Name [Printed]:	Mr. Joseph Miller	
Company:	The Runyon Group	
Address:	9107 Wilshire Bl, Suite 725	
City / State / Zip:	Beverly Hills, CA, 90210	
Office:	(213) 243-5530	( )
Fax:	( )	( )
Cell:	( )	( )
E-Mail:	joseph@runyongroup.com	

Traffic Consultant:

Name:	Srinath Raju, P.E.
Company:	Raju Associates, Inc.
Address:	505 E. Colorado Bl, Suite 202
City / State / Zip:	Pasadena, CA, 91101
Office:	(626) 792-2700
Fax:	(626) 792-2772
Cell:	(310) 569-7559
E-Mail:	srinath.raju@rajuassociates.com

If any of the intersection(s) to be studied as part of this traffic study are located within the City of Los Angeles, the unincorporated areas of Los Angeles County and/or impact any other public agency [i.e., CalTrans], then this MOU shall also be approved by the reviewing staff representative from each agency:

	City of Los Angeles:	County of Los Angeles:
Name [Signed]:	M. H. Blvf 5/4/2011	
Name [Printed]:	Mohammad H. Blorfroshan	
Company:	Dept. of Transportation	
Address:	7166 W. Manchester Ave	
City / State / Zip:	Los Angeles, CA 90045	
Office:	(213) 485-1062	( )
Fax:	(213) 485-1285	( )
Cell:	( ) —	( )
E-Mail:	mo.blorfroshan@lacity.org	

	Other Public Agency:	Other Public Agency:
Name [Signed]:		
Name [Printed]:		
Company:		
Address:		
City / State / Zip:		
Office:	(____)	(____)
Fax:	(____)	(____)
Cell:	(____)	(____)
E-Mail:		

Approved by:

Property Owner – Applicant	Date	Developer – Applicant	Date
Traffic Consultant	4/5/2011 Date		
City of Culver City	4/5/2011 Date		

Note: This MOU shall become valid as of the date of the City's signature and shall expire one (1) year thereafter. If the "administrative draft" of the traffic study has not been filed with the City by the expiration date, this MOU shall expire and a new MOU filing, review and approval process shall be required.

BK-JM/abn

ATTACHMENT A
ESTIMATED PROJECT TRIP GENERATION

	Size	Daily	AM Peak Hour			PM Peak Hour		
			IN	OUT	TOTAL	IN	OUT	TOTAL
Proposed Project								
Retail	36,819 s.f.	1,581	23	14	37	67	70	137
Restaurant	12,257 s.f.	1,103	5	5	10	62	30	92
Office	28,708 s.f.	510	61	8	69	7	36	43
Project Trip Generation Total		3,194	89	27	116	136	136	272
Transit Trip Use (7.5%) - Office		(38)	(5)	(1)	(6)	(1)	(3)	(4)
*Internal Capture (10%) Trip Credit		(316)	(8)	(3)	(11)	(14)	(13)	(27)
**Pass-By (20%) Trip Reduction - Retail/Restaurant		(483)	(5)	(3)	(8)	(21)	(20)	(41)
Project Trip Generation Net Total		2,357	71	20	91	100	100	200
Trip Rates [1]								
General Office (ITE Land Use 710)	Trips per 1,000 s.f.	[2]	88%	12%	[2]	17%	83%	1.49
Retail (ITE Land Use 820)	Trips per 1,000 s.f.	42.94	61%	39%	1.00	49%	51%	3.73
Restaurant (ITE Land Use 931)	Trips per 1,000 s.f.	89.95	50%	50%	0.81	67%	33%	7.49

* Internal capture credit taken after reduction of transit trips.
** Pass-by trip reduction taken after internal capture credits.

[1] Trip Generation, An ITE Information Report, 8th Edition, ITE 2008

[2] Daily and AM peak hour trip generation for office was calculated using the following formulas:

Daily: $Ln(T) = 0.77\ Ln(X) + 3.65$
AM Peak Hour: $Ln(T) = 0.80\ Ln(X) + 1.55$

Where:
Ln = Natural logarithm
T = Two-way volume of traffic (total trip-ends)
X = Area in 1,000 square feet gross floor area

ATTACHMENT B1
LIST OF RELATED PROJECTS - CULVER CITY [1]

#	Project Name	Address	Description	City	Estimated Completion Date	Completed Date	Project Phase
PROJECTS TO BE INCLUDED IN TRAFFIC STUDY							
1	Sony	10202 Washington Bl	Sony Lot Project - Approved to build net new 100,000 G.S.F. of office, post-production, stage, and support uses.	CC	2009	2009	Completed
2	Huron Townhouses	3823-3833 Huron Av	15 new townhouses, demo 3 existing	CC	2009	2009	Completed
3	Four Unit Condominium	3972 Tilden Av	4 unit condominium, TPM	CC	2009	2009	Completed
5	Baldwin Hills Scenic Overlook Park	Hetzler Rd	Existing 10,300 G.S.F. visitor center, passive recreation area	CC	2009	2009	Completed
6	Washington-Ince Realignment	Washington and Ince Bl at 9300 Culver Bl	Washington-Ince Bl Realignment	CC	2009	2009	Completed
9	Three New Condominiums	4048 Lincoln Av	3 Townhome Condominiums	CC	2010	2010	Completed
10	Eight Unit Condo	4067/4073 Lincoln Av	8 unit condominiums, TTM, 2,000 G.S.F.; 20 parking spaces provided	CC	2010	2010	Completed/TCO
12	Turning Point School - CUP Modification	8794 National	School, addition/remodel of net 9,000 G.S.F.	CC	2010	2010	Completed
13	Uptown Lofts	9900 Culver Bl	5,457 G.S.F. offices, 18 condominiums	CC	2010	2010	Completed
16	Hampton Inn	3954 Sepulveda Bl	77-unit hotel	CC	2011	TBD	Building Permit
17	Four Unit Condominium	4014 Van Buren Pl	4 unit condominium, TPM	CC	2011	TBD	Construction
18	Irving Residential/Office	4043 Irving Pl	4 Story; 26 residential units; 3 office units	CC	2011	TBD	Building Permit
20	Legado Mixed Use TOD	8770 Washington Bl	New mixed used development w/preliminary concept of up to (appox.) 115 residential units, retail (market, pharmacy & café) 31,040 G.S.F.	CC	2011	TBD	Pre-Application
21	West Los Angeles Community College Master Plan and EIR	LA County	Approx. 291,300 G.S.F. of new building construction & renovation. Anticipate future student population of approx. 18,904 students & 1,248 employees by fall 2022. Project includes second access road, parking structures, landscaping & development of athletic facilities.	LA County	2011	TBD	Construction
22	Morphosis Architects Office	3440 Wesley	11,657 S.F.. Architects Office (Previously Clyde's Auto Body Shop)	CC	2011	TBD	Construction
23	Lux @ 9901 Mixed Use	9901 Washington Bl, City of LA	14,112 G.S.F. mixed use development with 131 dwelling units, 12,178 G.S.F. of retail and three level subterranean parking structure with 244 parking spaces.	LA	2011	TBD	Entitlement
24	New Restaurant	5854 Blackwelder St/3077 La Cienega	Addition of 1,150 G.S.F. Two story structure to existing 1,195 G.S.F. building for new restaurant use.	CC	2011	TBD	Entitlement
25	New Dental Office - Building Permit	10826, and 10830 Washington Bl	Construction of new one story dental and retail building (2,989 G.S.F)	CC	2011	TBD	Construction
27	Union 76	10638 Culver Bl	Gas station and convenience store with new car wash; 2,500 G.S.F.	CC	2012	TBD	Building Permit
29	Distribution & Warehouse	3434 Wesley St	10,500 G.S.F. of office, warehouse, & distribution	CC	2012	TBD	Pre-Building Permit. Entitlements but no Building Permits.
30	Four Unit Condominium	3846 Bentley Av	4 unit condominium, TPM	CC	2012	TBD	Building Permit
31	Four Unit Condominium	4058 Madison Av	4 unit condominium, TPM	CC	2012	TBD	Building Permit
34	Warner Parking Structure	8511 Warner Dr	51,520 G.S.F. Retail/Restaurant; 784 Parking Spaces, five levels	CC	2012	TBD	Building Permit
35	Office Building	9919 Jefferson Bl	113,467 G.S.F., three-story office building	CC	2012	TBD	Building Permit
36	New Vehicle Repair Shop	11167 Washington Pl	Construction of a new vehicle repair shop with 1,196 G.S.F. of repair area with two service bays and 191 G.S.F. of office.	CC	2012	TBD	Entitlement
37	Fresh Paint Mixed Use	9355 Culver Bl	Additional 2nd story office and third floor residential unit for a total of 5,708 G.S.F. to an existing office/warehouse building	CC	2012	TBD	Building Permit

ATTACHMENT B1
LIST OF RELATED PROJECTS - CULVER CITY [1]

#	Project Name	Address	Description	City	Estimated Completion Date	Completed Date	Project Phase
40	Abraxis Bio Science	9920 Jefferson Bl	Exterior and interior renovation to an existing two-story building. Addition of a three story, 17,000 G.S.F. building over a one-story building (net addition is 14,999 G.S.F. - demo 2,001 G.S.F of existing building area).	CC	2012	TBD	Entitlement
41	Clive Wilkinson Architects, New Architects Office and Ancillary Retail or Office	6114, 6116, 6118 Washington Bl	New two-story, 5,560 G.S.F. office building which includes an ancillary retail or office.	CC	2012	TBD	Building Permit
42	New 7-Eleven Convenient Store	4436 Sepulveda Bl	Construction of a new 2,500 G.S.F., one story convenience store.	CC	2012	TBD	Entitlement
43	Expo Light Rail Station-Culver City Station	Washington Bl/National Bl	Light Rail Train Station	CC	2013	TBD	Pre-Application
48	Parcel B	9300 Culver Bl	118,000 G.S.F. of office, restaurant, and retail spaces	CC	2013	TBD	Building Permit
49	West Los Angeles Community College Master Plan and EIR (2010)	West LA College	Approximately 92,000 of net new building construction and renovation.	LA County	2013	TBD	Entitlement
50	Culver Studios Amend. No. 6	9336 Washington Bl	Phase 1 - 25,093 G.S.F. office; 13,634 G.S.F. support; 302 parking spaces. Phase 2 - 63,500 G.S.F. office; 8,741 G.S.F. support	CC	2013	TBD	Pre-Application
51	Arco AM/PM - New Carwash	5884 Washington Bl	New Carwash and storage room totaling 1,200 G.S.F. at an existing fueling station.	CC	2013	TBD	Building Permit
52	New Two story commercial building	11012 - 11014 Washington Bl	Two story commercial building totaling 3,385 G.S.F.	CC	2013	TBD	Entitlement
53	Tilden Terrace	11042-11056 Tilden Av	New three-story, 48,525 G.S.F. mixed use development with 10,700 G.S.F. of ground floor retail and 33 residential units.	CC	2013	TBD	Entitlement
54	Duquesne Ave Condominiums	4139-4145 Duquesne Av	Seven (7) condominium units.	CC	2013	TBD	Entitlement
55	Greg Reitz	8665 Hayden Pl	Construct 63,679 G.S.F. of office	CC	2014	TBD	Pre-Building Permit. Entitlements but no Building Permits.
56	Triangle Site - Washington/National TOD	Corner of Washington/National	New transit oriented development to include light rail station & mixed use development (preliminary concept includes up to 200 du, 149 room hotel, 200,000 G.S.F. office, 51,500 G.S.F. retail, & 20,000 G.S.F. restaurant	CC	2014	TBD	Pre-Application
57	Willow's School Comprehensive Plan	8509-8487 Higuera St, 8476 Warner Dr	Phase 1 - new surface parking; increased student enrollment by 50 from 425 to 475; Phase II & III increased student enrollment by 100, from 475 to 575.	CC	2014	TBD	Pre-Application
58	Bridge Housing Project	3814 Lenawee Av	Proposal for 2-3 story senior housing project with 62 units and 41 parking spaces.	CC	2014	TBD	Pre-Application
59	Jewish Home for the Aging, Gonda Healthy Aging Campus	3847 Delmas Ter., 3820-3842 Hughes, 9823 Venice Bl	184 congregate care units, 48 residential care units, 14,000 G.S.F. PACE program	CC/LA	2016	TBD	Pre-Application

ATTACHMENT B1
LIST OF RELATED PROJECTS - CULVER CITY [1]

#	Project Name	Address	Description	City	Estimated Completion Date	Completed Date	Project Phase
PROJECTS FARTHER THAN 2 MILES FROM THE SITE, UNLESS NOTED OTHERWISE; EXCLUDED FROM THE STUDY'S RELATED PROJECTS LIST							
4	Child Day-Care Center	4024/4026 Wade St	Conversion of a 1,371 G.S.F. duplex into a day care - no new square footage.	CC	2009	2009	Completed
7	Westfield Fox Hills Mall Expansion	6000 Sepulveda Bl	293,786 G.S.F. retail and 427 parking spaces	CC	2010	2010	Phase 1 Completed
8	Four Unit Condominium	4025 Wade St	4 unit condominium, TPM	CC	2010	2010	Completed
11	Fire Station No. 3	6030 Bristol Pkwy	Two-story, 12,156 G.S.F. fire station	CC	2010	2010	Completed
14	Burger King - Live/Work Units	13340 Washington Bl	41 unit condominium development with 6 live/work condominium units in Culver City and 35 units in LA	CC/LA	2011	TBD	Construction
15	Glencoe/Washington Mixed Use	13365 Washington Bl	4,183 G.S.F. ground floor retail and 19 units	CC	2011	TBD	Building Permit
19	Office & Retail Building	700-701 Corporate Pointe	240,612 G.S.F. office; 4,242 G.S.F. retail	CC	2011	TBD	Entitlement
26	11957 Washington Bl Office Project	11957 Washington Bl	73,569 G.S.F., 3-story office building	CC	2012	TBD	Entitlement
28	Faynsod Family Trust	11501-11509 Washington Bl	Mixed Use: 3 Retail (2,359 G.S.F.), 1 Office (937 G.S.F.) & 2 Apts. (1,867 G.S.F.)	CC	2012	TBD	Building Permit
32	Dr. Brenord Dutt	5800 Uplander Wy	Add 3 stories/57,050 G.S.F. to a 2 story 26,140 G.S.F. Office	CC	2012	TBD	Pre-Building Permit. Entitlements but no Building Permits.
33	Radisson Office Tower	6161 Centinela Bl	342,400 G.S.F. office tower and parking structure addition	CC	2012	2010	Building Permit
38	12714-12718 Washington Bl Mixed Use	12714-12718 Washington Bl	5 unit mixed use project with approximately 3,300 G.S.F. ground floor retail	CC	2012	TBD	Pre-Application
39	11304 Culver Bl, CUP for Auto Repair Shop	11304 Culver Bl	T.I. to existing 1,280 G.S.F., 3-bay vacant building for auto repair shop per plan	CC	2012	TBD	Entitlement
44	Modification to CUP, Expanding School	12095-12101 Washington Bl	Conversion of a 20,090 G.S.F. office building into classrooms & administrative offices.	CC	2013	TBD	Pre-Application
45	Washington Place Office Condos	12402 Washington Pl	42,000 S.F. 4-story office and retail building. 9,300 G.S.F. of retail and 30,400 G.S.F. of office	CC	2013	TBD	Pre-Building Permit. Entitlements but no Building Permits.
46	Baldwin Site	12803 W. Washington Bl	New 3 story commercial (office and retail) condominium building (retail ground floor) totaling 37,308 G.S.F.	CC	2013	TBD	Pre-Building Permit. Entitlements but no Building Permits.
47	Washington/Landmark Mixed Use TOD **Project Site**	8810,8840,8850 Washington Bl	New commercial development consisting of approximately 12,257 G.S.F. of restaurant use, 36,819 G.S.F. of retail, and 28,708 G.S.F. of office use.	CC	2013	TBD	Pre-Application

[1] Culver City Related Projects List (dated March 31, 2011) provided by the City of Culver City.

ATTACHMENT B2
LIST OF RELATED PROJECTS- CITY OF LOS ANGELES

No.	Project Name	Location	Land Use	Size
CITY OF LOS ANGELES RELATED PROJECTS LIST - PROVIDED BY LADOT, FEBRUARY 2011				
1	Mixed-Use (The Palms)	10601 Washington Boulevard	Apartment	126 units
			Office	23,000 s.f.
			Retail	9,000 s.f.
			Restaurant	9,000 s.f.
			Office (to be removed)	(10,000) s.f.
2	Apartment/Retail	3417 Motor Avenue	Apartment	115 units
			Retail	975 s.f.
			Apartment (to be removed)	(15) units
			Single-Family Dwelling (to be removed)	(2) units
			Office (to be removed)	(3,300) s.f.
3	Mixed-Use	10604 West National Boulevard	Condominium	29 units
			Retail	1,250 s.f.
			Office	2,000 s.f.
4	Mixed-Use	2900 S. Sepulveda Boulevard	Apartment	48 units
			Office	1,500 s.f.
5	Media Related Office	3105 La Cienega Boulevard	Office	133,000 s.f.
			Manufacturing (to be removed)	(109,000) s.f.
6	Office	10100 Culver Boulevard	Office	50,000 s.f.
7	Mixed-Use	3115 S. Sepulveda Boulevard	Condominium	175 units
			Retail	28,000 s.f.
			Discount Store (to be removed)	(28,000) s.f.
8	Condominium	11131 Rose Avenue	Condominium	227 units
			Apartment (to be removed)	(89) units
9	Restaurant/Retail	10612 National Boulevard	Restaurant	2,500 s.f.
			Retail	3,500 s.f.
10	Private School	2920 S. Sepulveda Boulevard	Private School	120 student
			Office (to be removed)	(9,000) s.f.

ATTACHMENT C
LIST OF STUDY INTERSECTIONS

#	Intersection		Jurisdiction	Signalized?	Signal System Control
	Northbound/Southbound	Eastbound/Westbound			
1.	Robertson Boulevard	Cattaraugus Avenue	City of Los Angeles	Yes	ATSAC/ATCS
2.	Robertson Boulevard	I-10 WB Off-Ramp/Kincardine Avenue	City of Los Angeles	Yes	ATSAC/ATCS
3.	Robertson Boulevard	National Boulevard	City of Los Angeles	Yes	ATSAC/ATCS
4.	National Boulevard	I-10 Eastbound On-Ramp	City of Los Angeles	Yes	ATSAC/ATCS
5.	Hughes Avenue	Venice Boulevard	City of Los Angeles	Yes	ATSAC
6.	Bagley Avenue	Venice Boulevard	City of Los Angeles	Yes	ATSAC
7.	Culver Boulevard	Venice Boulevard	City of Los Angeles	Yes	ATSAC/ATCS
8.	Robertson Boulevard	Venice Boulevard	City of Los Angeles	Yes	ATSAC/ATCS
9.	National Boulevard	Venice Boulevard	City of Los Angeles	Yes	ATSAC/ATCS
10.	Helms Avenue	Venice Boulevard	City of Los Angeles	Yes	ATSAC/ATCS
11.	Cattaraugus Avenue	Venice Boulevard	City of Los Angeles	Yes	ATSAC
12.	La Cienega Boulevard	Venice Boulevard [1]	City of Los Angeles	Yes	ATSAC/ATCS
13.	Hughes Avenue/Duquesne Avenue	Washington Boulevard	Culver City	Yes	ATSAC
14.	Duquesne Avenue	Culver Boulevard	Culver City	Yes	ATSAC
15.	Culver Boulevard	Washington Boulevard/Irving Place	Culver City	Yes	ATSAC
16.	Main Street	Culver Boulevard	Culver City	Yes	ATSAC
17.	Culver Boulevard	Washington Boulevard	Culver City	Yes	ATSAC
18.	Robertson Boulevard/Higuera Street	Washington Boulevard	Culver City	Yes	ATSAC
19.	Landmark Street	Washington Boulevard	Culver City	Yes	ATSAC
20.	National Boulevard	Washington Boulevard	Culver City	Yes	ATSAC
21.	Wesley Avenue	Washington Boulevard	Culver City	No	-
22.	Helms Avenue	Washington Boulevard	Culver City	Yes	ATSAC
23.	Cattaraugus Avenue	Washington Boulevard	Culver City	No	-
24.	La Cienega Boulevard	Washington Boulevard	Culver City	Yes	ATSAC
25.	La Cienega Boulevard	Fairfax Avenue [1]	City of Los Angeles/Culver City	Yes	ATSAC/ATCS
26.	Wesley Street	National Boulevard	Culver City	Yes	ATSAC
27.	Hayden Avenue	National Boulevard	Culver City	Yes	ATSAC
28.	Jefferson Boulevard	National Boulevard	City of Los Angeles	Yes	ATSAC/ATCS
29.	La Cienega Boulevard	Jefferson Boulevard [1]	City of Los Angeles	Yes	ATSAC/ATCS
30.	Jefferson Boulevard	Higuera Street/Rodeo Road	City of Los Angeles	Yes	ATSAC/ATCS
31.	La Cienega Boulevard	Rodeo Road	City of Los Angeles	Yes	ATSAC/ATCS
32.	Braddock Drive	Duquesne Avenue	Culver City	No	-
33.	Lucerne Avenue	Duquesne Avenue	Culver City	No	-
34.	Jefferson Boulevard	Duquesne Avenue	Culver City	Yes	ATSAC

[1] Los Angeles County Congestion Management Program monitoring location.

ATTACHMENT D - LOCATION OF STUDY INTERSECTIONS/STREET SEGMENTS



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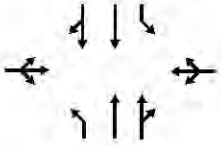
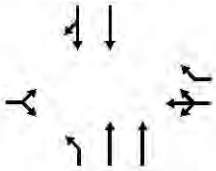
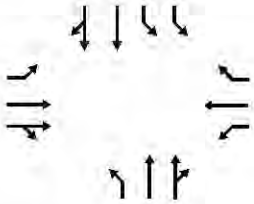
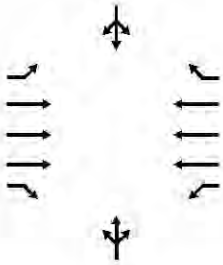
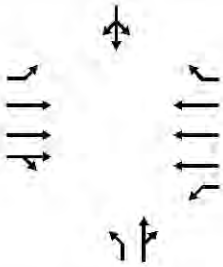
FIGURE C
PROJECT TRIP DISTRIBUTION

RAJU Associates, Inc

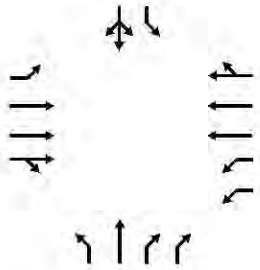
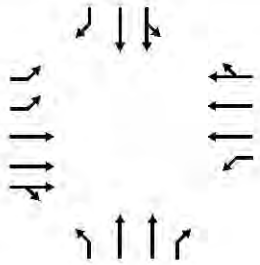
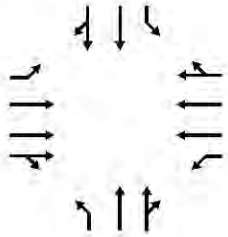
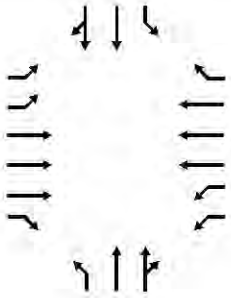
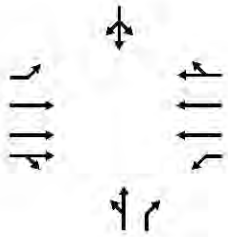
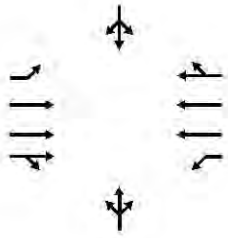
APPENDIX B

Intersection Lane Configurations

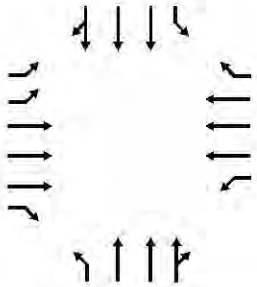
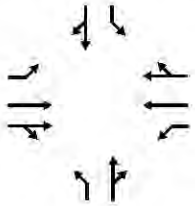
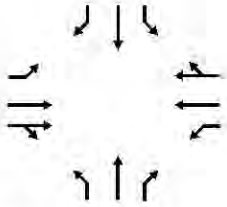
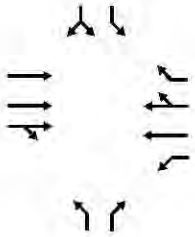
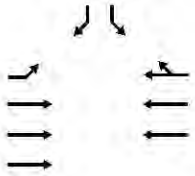
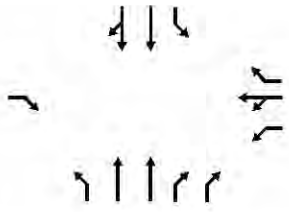
INTERSECTION LANE CONFIGURATIONS

Int. #	INTERSECTION	EXISTING (2011) CONDITIONS	FUTURE (2014) CONDITIONS
1.	N/S: Robertson Boulevard E/W: Cattaraugus Avenue (Traffic Signal)		Same As Existing
2.	N/S: Robertson Boulevard E/W: I-10 WB Off-Ramp/Kincardine Avenue (Traffic Signal)		Same As Existing
3.	N/S: Robertson Boulevard E/W: National Boulevard (Traffic Signal)		Same As Existing
4.	N/S: National Boulevard E/W: I-10 Eastbound On-Ramp (Traffic Signal)		Same As Existing
5.	N/S: Hughes Avenue E/W: Venice Boulevard (Traffic Signal)		Same As Existing
6.	N/S: Bagley Avenue E/W: Venice Boulevard (Traffic Signal)		Same As Existing

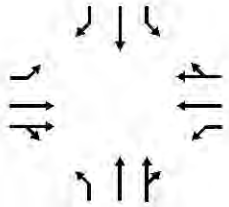
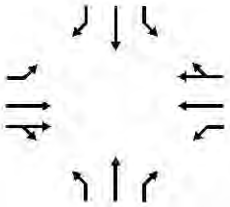
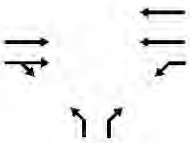
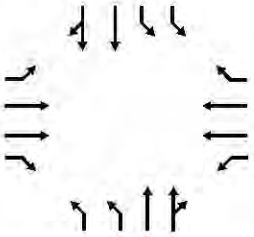
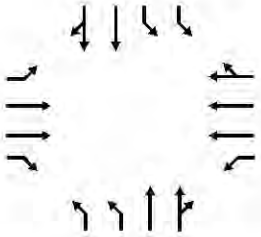
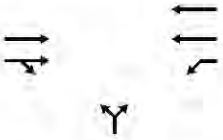
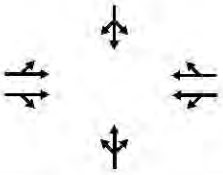
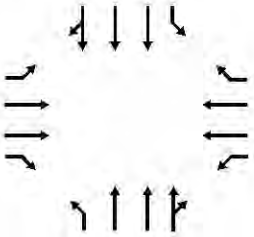
INTERSECTION LANE CONFIGURATIONS

Int. #	INTERSECTION	EXISTING (2011) CONDITIONS	FUTURE (2014) CONDITIONS
7.	N/S: Culver Boulevard E/W: Venice Boulevard (Traffic Signal)		Same As Existing
8.	N/S: Robertson Boulevard E/W: Venice Boulevard (Traffic Signal)		Same As Existing
9.	N/S: National Boulevard E/W: Venice Boulevard (Traffic Signal)		
10.	N/S: Helms Avenue E/W: Venice Boulevard (Traffic Signal)		Same As Existing
11.	N/S: Cattaraugus Avenue E/W: Venice Boulevard (Traffic Signal)		Same As Existing

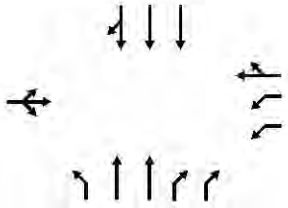
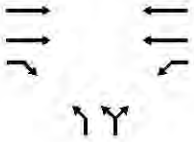
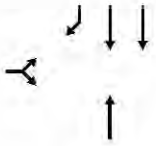
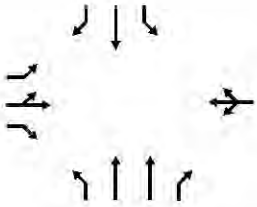
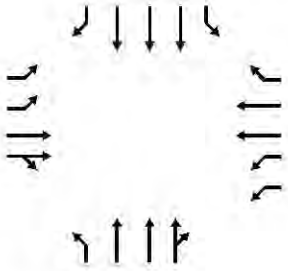
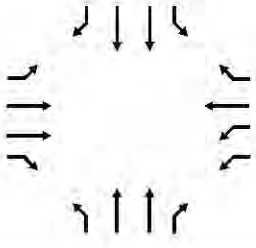
INTERSECTION LANE CONFIGURATIONS

Int. #	INTERSECTION	EXISTING (2011) CONDITIONS	FUTURE (2014) CONDITIONS
12.	N/S: La Cienega Boulevard E/W: Venice Boulevard (Traffic Signal)		Same As Existing
13.	N/S: Hughes Avenue/Duquesne Avenue E/W: Washington Boulevard (Traffic Signal)		Same As Existing
14.	N/S: Duquesne Avenue E/W: Culver Boulevard (Traffic Signal)		Same As Existing
15.	N/S: Washington Boulevard/Irving Place E/W: Culver Boulevard (Traffic Signal)		Same As Existing
16.	N/S: Main Street E/W: Culver Boulevard (Traffic Signal)		Same As Existing
17.	N/S: Culver Boulevard E/W: Washington Boulevard/Canfield Avenue (Traffic Signal)		Same As Existing

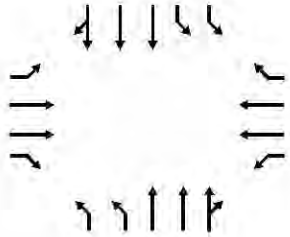
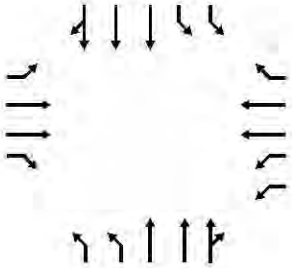
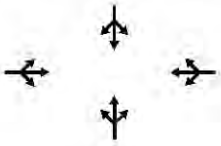
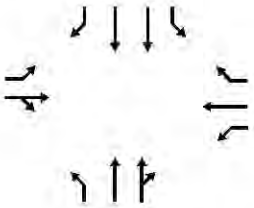
INTERSECTION LANE CONFIGURATIONS

Int. #	INTERSECTION	EXISTING (2011) CONDITIONS	FUTURE (2014) CONDITIONS
18.	N/S: Robertson Boulevard/Higuera Street E/W: Washington Boulevard (Traffic Signal)		
19.	N/S: Landmark Street E/W: Washington Boulevard (Traffic Signal)		Same As Existing
20.	N/S: National Boulevard E/W: Washington Boulevard (Traffic Signal)		
21.	N/S: Wesley Avenue/Driveway E/W: Washington Boulevard (Stop-Controlled On Minor Approach)		Same As Existing
22.	N/S: Helms Avenue E/W: Washington Boulevard (Traffic Signal)		Same As Existing
23.	N/S: Cattaraugus Avenue E/W: Washington Boulevard (Stop-Controlled On Minor Approach)		Same As Existing
24.	N/S: La Cienega Boulevard E/W: Washington Boulevard (Traffic Signal)		Same As Existing

INTERSECTION LANE CONFIGURATIONS

Int. #	INTERSECTION	EXISTING (2011) CONDITIONS	FUTURE (2014) CONDITIONS
25.	N/S: La Cienega Boulevard E/W: Fairfax Avenue (Traffic Signal)		Same As Existing
26.	N/S: Wesley Street E/W: National Boulevard (Traffic Signal)		Same As Existing
27.	N/S: Hayden Avenue E/W: National Boulevard (Traffic Signal)		
28.	N/S: Jefferson Boulevard E/W: National Boulevard (Traffic Signal)		
29.	N/S: La Cienega Boulevard E/W: Jefferson Boulevard (Traffic Signal)		Same As Existing
30.	N/S: Jefferson Boulevard E/W: Higuera Street/Rodeo Road (Traffic Signal)		Same As Existing

INTERSECTION LANE CONFIGURATIONS

Int. #	INTERSECTION	EXISTING (2011) CONDITIONS	FUTURE (2014) CONDITIONS
31.	N/S: La Cienega Boulevard E/W: Rodeo Road (Traffic Signal)		
32.	N/S: Braddock Drive E/W: Duquesne Avenue (Stop-Controlled On All Approach)		Same As Existing
33.	N/S: Lucerne Avenue E/W: Duquesne Avenue (Stop-Controlled On All Approach)		Same As Existing
34.	N/S: Jefferson Boulevard E/W: Duquesne Avenue (Traffic Signal)		Same As Existing

APPENDIX C

Traffic Counts

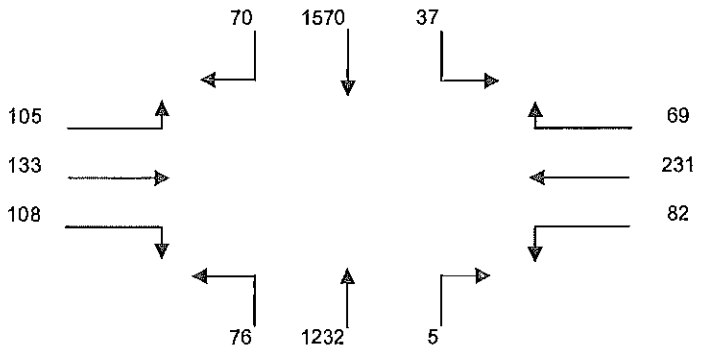
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON - NATIONAL EMC / CULVER CITY
DATE: WEDNESDAY, MARCH 11, 2009
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S ROBERTSON BOULEVARD
E/W CATTARAGUS AVENUE
FILE NUMBER: 1-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	10	242	3	11	28	18	0	186	10	11	5	5
0715-0730	18	279	4	12	39	39	1	228	19	19	11	10
0730-0745	26	355	4	10	43	47	1	261	16	20	19	22
0745-0800	29	395	8	18	63	30	2	296	19	32	26	31
0800-0815	19	353	9	17	53	20	2	291	20	29	39	26
0815-0830	11	385	8	17	65	19	1	321	19	28	39	24
0830-0845	11	437	12	17	50	13	0	324	18	19	29	24
0845-0900	8	362	8	22	58	7	1	316	23	17	24	32
0900-0915	12	342	13	16	40	13	1	324	19	14	22	26
0915-0930	12	366	11	21	31	10	2	328	19	13	17	24
0930-0945	12	326	14	16	20	8	2	289	21	14	16	16
0940-1000	9	338	15	19	17	10	1	284	22	10	16	17

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	83	1271	19	51	173	134	4	971	64	82	61	68	2981
0715-0815	92	1382	25	57	198	136	6	1076	74	100	95	89	3330
0730-0830	85	1488	29	62	224	116	6	1169	74	109	123	103	3588
0745-0845	70	1570	37	69	231	82	5	1232	76	108	133	105	3718
0800-0900	49	1537	37	73	226	59	4	1252	80	93	131	106	3647
0815-0915	42	1526	41	72	213	52	3	1285	79	78	114	106	3611
0830-0930	43	1507	44	76	179	43	4	1292	79	63	92	106	3528
0845-0945	44	1396	46	75	149	38	6	1257	82	58	79	98	3328
0900-1000	45	1372	53	72	108	41	6	1225	81	51	71	83	3208

A.M. PEAK HOUR
0745-0845



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

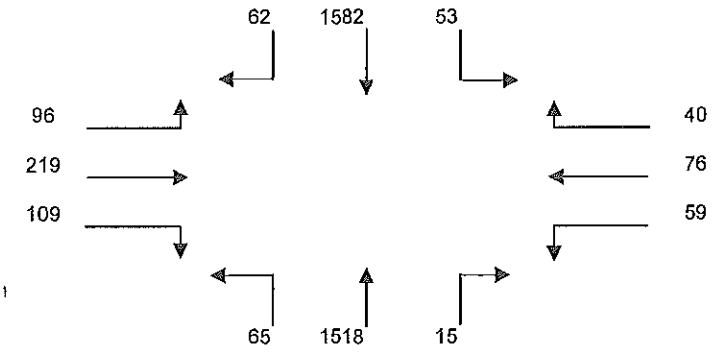
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON - NATIONAL EMC / CULVER CITY
DATE: WEDNESDAY, MARCH 11, 2009
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION N/S ROBERTSON BOULEVARD
E/W CATTARAGUS AVENUE
FILE NUMBER: 1-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	17	365	19	15	33	15	4	346	19	26	25	7
0315-0330	12	344	19	11	31	14	3	349	14	34	31	13
0330-0345	15	407	17	9	20	11	2	374	12	27	49	17
0345-0400	14	346	11	14	14	11	2	349	16	20	42	16
0400-0415	17	405	14	11	16	11	2	355	19	26	41	16
0415-0430	12	383	18	10	16	8	4	361	17	21	40	20
0430-0445	10	381	14	14	26	16	3	362	16	17	39	20
0445-0500	10	320	16	13	20	11	2	380	15	17	41	24
0500-0515	17	358	11	13	22	16	3	388	15	24	44	20
0515-0530	16	441	15	8	13	10	5	378	16	25	59	20
0530-0545	15	384	17	9	18	18	4	385	19	33	61	29
0545-0600	14	399	10	10	23	15	3	367	15	27	55	27

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0400	58	1462	66	49	98	51	11	1418	61	107	147	53	3581
0315-0415	58	1502	61	45	81	47	9	1427	61	107	163	62	3623
0330-0430	58	1541	60	44	66	41	10	1439	64	94	172	69	3658
0345-0445	53	1515	57	49	72	46	11	1427	68	84	162	72	3616
0400-0500	49	1489	62	48	78	46	11	1458	67	81	161	80	3630
0415-0515	49	1442	59	50	84	51	12	1491	63	79	164	84	3628
0430-0530	53	1500	56	48	81	53	13	1508	62	83	183	84	3724
0445-0545	58	1503	59	43	73	55	14	1531	65	99	205	93	3798
0500-0600	62	1582	53	40	76	59	15	1518	65	109	219	96	3894

P.M. PEAK HOUR
0500-0600



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

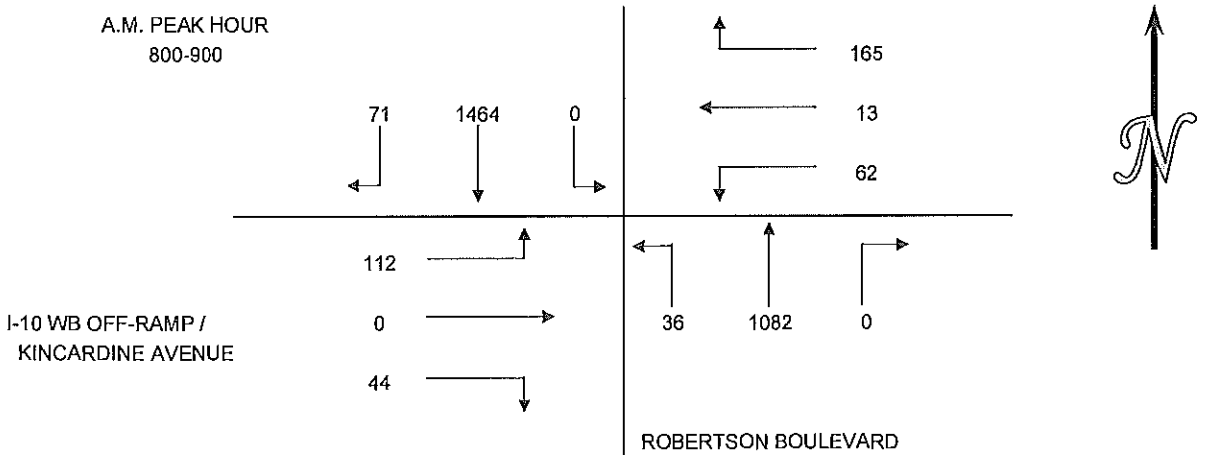
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: TUESDAY SEPTEMBER 9, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: 2 N/S ROBERTSON BOULEVARD
E/W I-10 WB OFF-RAMP / KINCARDINE AVENUE

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	4	282	0	38	6	14	0	218	15	5	0	6	588
715-730	22	346	0	29	13	21	0	263	22	17	0	18	751
730-745	32	333	0	29	20	11	0	247	17	32	0	6	727
745-800	21	336	0	26	17	23	0	258	9	37	0	28	755
800-815	24	386	0	42	6	18	0	280	11	16	0	30	813
815-830	15	326	0	36	1	11	0	207	8	10	0	27	641
830-845	12	365	0	36	2	13	0	282	9	7	0	25	751
845-900	20	387	0	51	4	20	0	313	8	11	0	30	844
900-915	10	304	0	65	0	24	0	281	9	7	0	13	713
915-930	6	262	0	50	4	24	0	303	6	5	0	9	669
930-945	5	267	0	45	4	34	0	301	2	2	0	14	674
945-1000	9	279	0	124	7	38	0	260	8	8	0	7	740

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	79	1297	0	122	56	69	0	986	63	91	0	58	2821
715-815	99	1401	0	126	56	73	0	1048	59	102	0	82	3046
730-830	92	1381	0	133	44	63	0	992	45	95	0	91	2936
745-845	72	1413	0	140	26	65	0	1027	37	70	0	110	2960
800-900	71	1464	0	165	13	62	0	1082	36	44	0	112	3049
815-815	57	1382	0	188	7	68	0	1083	34	35	0	95	2949
830-930	48	1318	0	202	10	81	0	1179	32	30	0	77	2977
845-945	41	1220	0	211	12	102	0	1198	25	25	0	66	2900
900-1000	30	1112	0	284	15	120	0	1145	25	22	0	43	2796



*Counts provided by the City of Culver City.

WILTEC

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INTERSECTION TURNING MOVEMENT COUNT SUMMARY

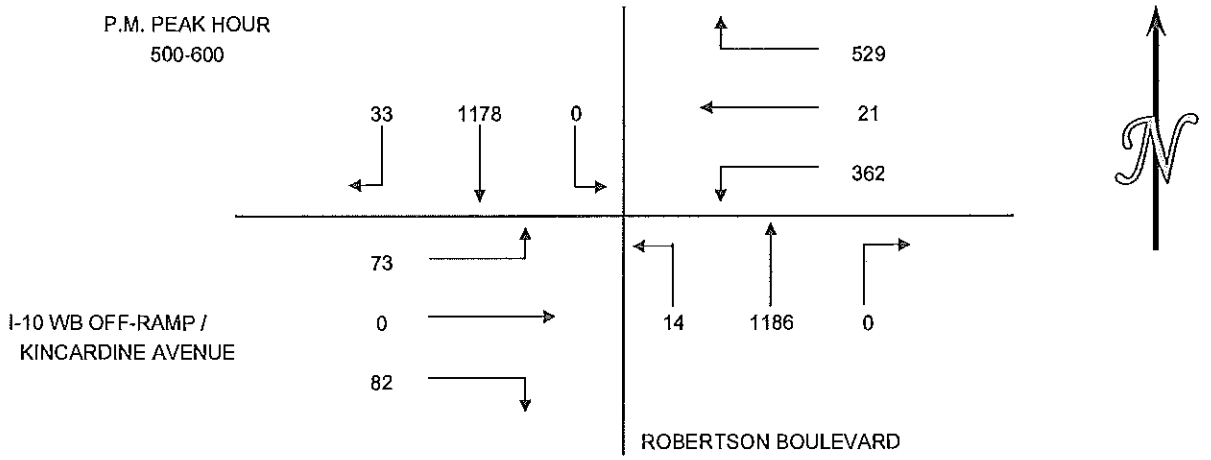
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: TUESDAY SEPTEMBER 9, 2008
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: 2 N/S ROBERTSON BOULEVARD
E/W I-10 WB OFF-RAMP / KINCARDINE AVENUE

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-315	12	252	0	135	15	60	0	299	9	31	0	16	829
315-330	11	308	0	127	12	62	0	293	9	38	0	18	878
330-345	8	298	0	139	9	48	0	257	3	18	0	22	802
345-400	7	311	0	126	8	73	0	261	12	7	0	19	824
400-415	8	324	0	117	10	74	0	219	8	15	0	21	796
415-430	7	236	0	140	6	92	0	222	11	4	0	16	734
430-445	11	288	0	117	3	70	0	261	4	12	0	23	789
445-500	8	333	0	153	3	92	0	274	2	7	0	23	895
500-515	4	276	0	144	5	82	0	282	3	6	0	16	818
515-530	6	232	0	118	8	98	0	309	1	16	0	20	808
530-545	9	280	0	126	2	87	0	331	4	35	0	17	891
545-600	14	390	0	141	6	95	0	264	6	25	0	20	961

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-400	38	1169	0	527	44	243	0	1110	33	94	0	75	3333
315-415	34	1241	0	509	39	257	0	1030	32	78	0	80	3300
330-430	30	1169	0	522	33	287	0	959	34	44	0	78	3156
345-445	33	1159	0	500	27	309	0	963	35	38	0	79	3143
400-500	34	1181	0	527	22	328	0	976	25	38	0	83	3214
415-515	30	1133	0	554	17	336	0	1039	20	29	0	78	3236
430-530	29	1129	0	532	19	342	0	1126	10	41	0	82	3310
445-545	27	1121	0	541	18	359	0	1196	10	64	0	76	3412
500-600	33	1178	0	529	21	362	0	1186	14	82	0	73	3478



*Counts provided by the City of Culver City.

WILTEC

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INTERSECTION TURNING MOVEMENT COUNT SUMMARY

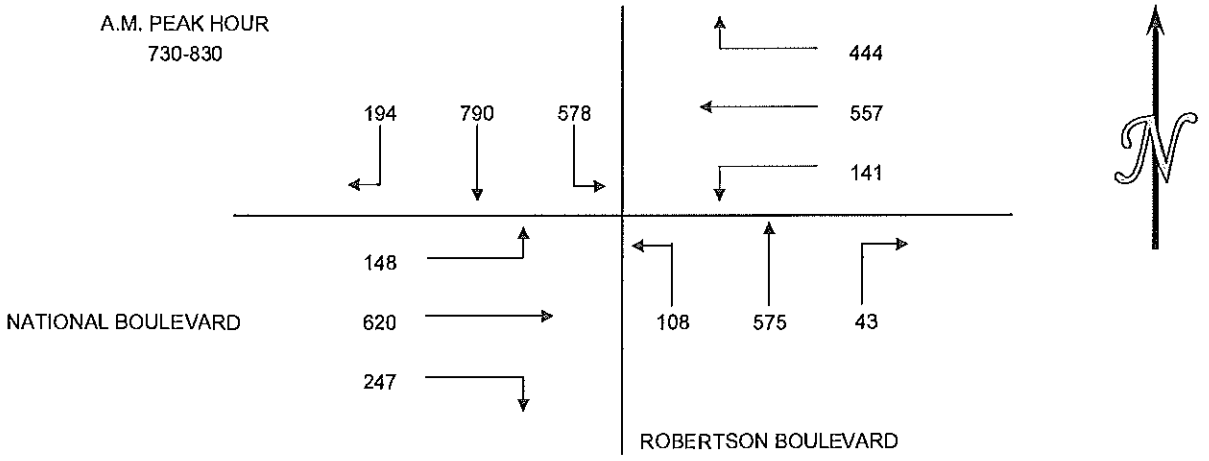
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: TUESDAY SEPTEMBER 9, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: 3 N/S ROBERTSON BOULEVARD
E/W NATIONAL BOULEVARD

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	31	146	105	66	87	35	6	84	8	57	92	30	747
715-730	63	174	102	84	127	44	16	124	22	54	114	35	959
730-745	47	200	136	120	154	35	7	177	31	70	146	40	1163
745-800	63	179	122	110	131	53	13	141	20	40	168	43	1083
800-815	44	199	162	96	124	22	8	145	33	68	166	36	1103
815-830	40	212	158	118	148	31	15	112	24	69	140	29	1096
830-845	39	171	146	135	157	46	20	122	19	79	112	41	1087
845-900	43	191	120	110	159	28	14	130	16	73	142	41	1067
900-915	47	172	130	141	136	29	6	148	13	47	130	42	1041
915-930	38	146	106	129	157	30	14	147	13	57	108	37	982
930-945	33	174	116	116	127	36	19	165	19	40	92	29	966
945-1000	59	116	97	81	138	42	11	144	16	32	75	26	837

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	204	699	465	380	499	167	42	526	81	221	520	148	3952
715-815	217	752	522	410	536	154	44	587	106	232	594	154	4308
730-830	194	790	578	444	557	141	43	575	108	247	620	148	4445
745-845	186	761	588	459	560	152	56	520	96	256	586	149	4369
800-900	166	773	586	459	588	127	57	509	92	289	560	147	4353
815-815	169	746	554	504	600	134	55	512	72	268	524	153	4291
830-930	167	680	502	515	609	133	54	547	61	256	492	161	4177
845-945	161	683	472	496	579	123	53	590	61	217	472	149	4056
900-1000	177	608	449	467	558	137	50	604	61	176	405	134	3826



*Counts provided by the City of Culver City.

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INTERSECTION TURNING MOVEMENT COUNT SUMMARY

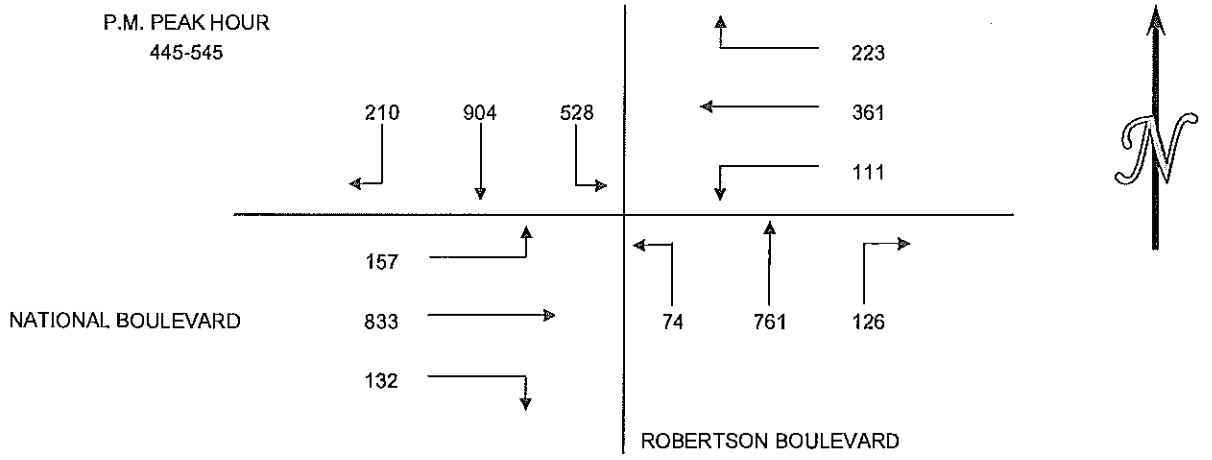
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: TUESDAY SEPTEMBER 9, 2008
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: 3 N/S ROBERTSON BOULEVARD
E/W NATIONAL BOULEVARD

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-315	68	202	128	64	86	16	25	219	23	23	191	34	1079
315-330	32	188	116	41	76	12	19	181	13	25	186	29	918
330-345	55	215	138	68	92	29	30	202	28	34	205	40	1136
345-400	46	181	129	47	70	14	19	152	20	23	182	39	922
400-415	24	190	97	50	74	19	32	144	20	36	183	37	906
415-430	38	222	111	44	86	21	27	171	16	57	150	29	972
430-445	64	261	132	49	95	34	25	191	14	35	204	50	1154
445-500	52	222	112	60	112	22	24	162	12	29	211	29	1047
500-515	70	229	129	60	103	35	40	200	19	32	209	44	1170
515-530	37	212	129	38	79	24	23	180	16	22	182	31	973
530-545	51	241	158	65	67	30	39	219	27	49	231	53	1230
545-600	28	227	121	42	87	23	17	187	20	30	181	37	1000

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-400	201	786	511	220	324	71	93	754	84	105	764	142	4055
315-415	157	774	480	206	312	74	100	679	81	118	756	145	3882
330-430	163	808	475	209	322	83	108	669	84	150	720	145	3936
345-445	172	854	469	190	325	88	103	658	70	151	719	155	3954
400-500	178	895	452	203	367	96	108	668	62	157	748	145	4079
415-515	224	934	484	213	396	112	116	724	61	153	774	152	4343
430-530	223	924	502	207	389	115	112	733	61	118	806	154	4344
445-545	210	904	528	223	361	111	126	761	74	132	833	157	4420
500-600	186	909	537	205	336	112	119	786	82	133	803	165	4373



*Counts provided by the City of Culver City.

WILTEC

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INTERSECTION TURNING MOVEMENT COUNT SUMMARY

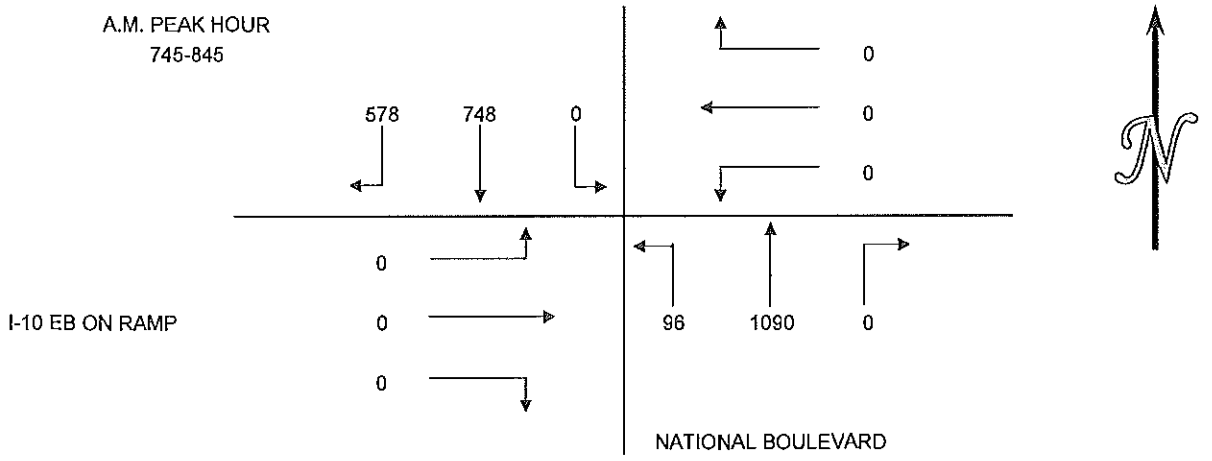
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: TUESDAY SEPTEMBER 9, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: 4 N/S NATIONAL BOULEVARD
E/W I-10 EB ON RAMP

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	119	87	0	0	0	0	0	213	27	0	0	0	446
715-730	169	104	0	0	0	0	0	224	14	0	0	0	511
730-745	121	152	0	0	0	0	0	260	18	0	0	0	551
745-800	159	217	0	0	0	0	0	303	25	0	0	0	704
800-815	167	199	0	0	0	0	0	275	17	0	0	0	658
815-830	118	176	0	0	0	0	0	246	22	0	0	0	562
830-845	134	156	0	0	0	0	0	266	32	0	0	0	588
845-900	128	169	0	0	0	0	0	214	23	0	0	0	534
900-915	153	127	0	0	0	0	0	209	18	0	0	0	507
915-930	126	112	0	0	0	0	0	180	18	0	0	0	436
930-945	107	93	0	0	0	0	0	173	13	0	0	0	386
945-1000	130	86	0	0	0	0	0	188	28	0	0	0	432

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	568	560	0	0	0	0	0	1000	84	0	0	0	2212
715-815	616	672	0	0	0	0	0	1062	74	0	0	0	2424
730-830	565	744	0	0	0	0	0	1084	82	0	0	0	2475
745-845	578	748	0	0	0	0	0	1090	96	0	0	0	2512
800-900	547	700	0	0	0	0	0	1001	94	0	0	0	2342
815-815	533	628	0	0	0	0	0	935	95	0	0	0	2191
830-930	541	564	0	0	0	0	0	869	91	0	0	0	2065
845-945	514	501	0	0	0	0	0	776	72	0	0	0	1863
900-1000	516	418	0	0	0	0	0	750	77	0	0	0	1761



*Counts provided by the City of Culver City.

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: CA11_5076_005 **Day:** THURSDAY

NS STREET: National Blvd DATE: 3/10/2011 LOCATION: City of Culver City

EW STREET: I-10 EB On-Ramp DAY: THURSDAY PROJECT#: 11-5076-005

PM

NS/EW Streets:	National Blvd			National Blvd			I-10 EB On-Ramp			I-10 EB On-Ramp			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	0	2	1	0	0	0	0	0	0	
4:00 PM	13	137			180	133							463
4:15 PM	27	135			219	99							480
4:30 PM	26	142			237	134							539
4:45 PM	31	161			237	143							572
5:00 PM	20	150			235	135							540
5:15 PM	39	134			236	160							569
5:30 PM	25	171			246	135							577
5:45 PM	31	155			248	132							566
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	212	1185	0	0	1838	1071	0	0	0	0	0	0	4306
APPROACH %'s :	15.18%	84.82%	0.00%	0.00%	63.18%	36.82%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
PEAK HR START TIME :	445 PM												TOTAL
PEAK HR VOL :	115	616	0	0	954	573	0	0	0	0	0	0	2258
PEAK HR FACTOR :		0.932			0.964			0.000			0.000		0.978

CONTROL : Signalized

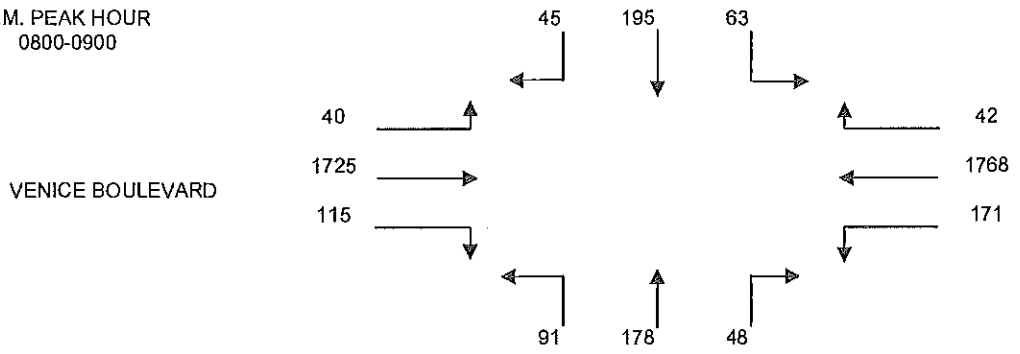
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON - NATIONAL EMC / CULVER CITY
DATE: WEDNESDAY, MARCH 11, 2009
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S HUGHES AVENUE
E/W VENICE BOULEVARD
FILE NUMBER: 5-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	14	18	10	9	338	38	12	17	13	17	244	5
0715-0730	13	20	8	8	387	31	13	22	25	24	300	8
0730-0745	16	27	11	7	498	43	11	30	26	22	390	15
0745-0800	12	41	17	10	441	43	7	33	29	22	413	10
0800-0815	8	39	18	12	483	35	10	39	22	20	436	8
0815-0830	8	55	12	12	411	34	15	52	21	26	447	10
0830-0845	12	50	18	8	440	44	11	44	21	31	464	11
0845-0900	17	51	15	10	434	58	12	43	27	38	378	11
0900-0915	14	50	11	12	415	59	19	46	22	24	418	12
0915-0930	12	42	14	8	358	43	16	30	17	28	354	17
0930-0945	10	30	11	9	378	38	19	37	21	27	357	11
0940-1000	9	28	7	7	344	30	14	26	17	20	308	10

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	55	106	46	34	1664	155	43	102	93	85	1347	38	3768
0715-0815	49	127	54	37	1809	152	41	124	102	88	1539	41	4163
0730-0830	44	162	58	41	1833	155	43	154	98	90	1686	43	4407
0745-0845	40	185	65	42	1775	156	43	168	93	99	1760	39	4465
0800-0900	45	195	63	42	1768	171	48	178	91	115	1725	40	4481
0815-0915	51	206	56	42	1700	195	57	185	91	119	1707	44	4453
0830-0930	55	193	58	38	1647	204	58	163	87	121	1614	51	4289
0845-0945	53	173	51	39	1585	198	66	156	87	117	1507	51	4083
0900-1000	45	150	43	36	1495	170	68	139	77	99	1437	50	3809

A.M. PEAK HOUR
0800-0900



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

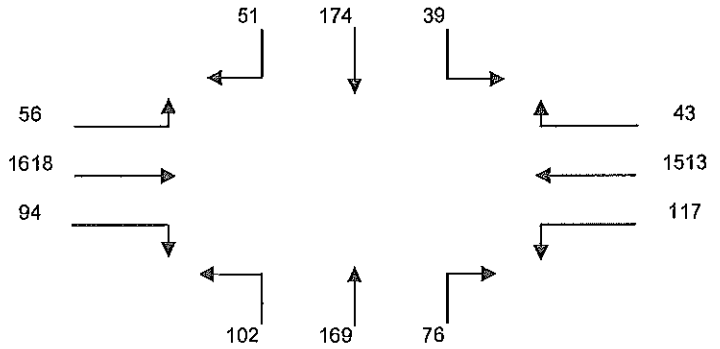
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON - NATIONAL EMC / CULVER CITY
DATE: WEDNESDAY, MARCH 11, 2009
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION N/S HUGHES AVENUE
E/W VENICE BOULEVARD
FILE NUMBER: 5-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	12	29	7	16	342	26	25	23	29	27	395	19
0315-0330	11	32	10	12	383	29	21	27	22	21	417	17
0330-0345	9	36	10	12	353	20	18	24	19	29	401	15
0345-0400	14	45	12	10	353	25	15	37	16	30	424	12
0400-0415	16	36	7	11	320	24	20	38	25	27	412	13
0415-0430	13	45	5	12	356	39	24	30	20	21	400	16
0430-0445	10	60	8	7	350	33	19	37	22	22	422	12
0445-0500	13	40	8	7	355	22	17	32	23	29	415	19
0500-0515	12	47	7	11	372	33	20	48	27	26	373	17
0515-0530	14	50	11	10	354	25	15	37	30	23	402	12
0530-0545	11	44	10	12	382	30	21	41	26	17	412	16
0545-0600	14	33	11	10	405	29	20	43	19	28	431	11

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0400	46	142	39	50	1431	100	79	111	86	107	1637	63	3891
0315-0415	50	149	39	45	1409	98	74	126	82	107	1654	57	3890
0330-0430	52	162	34	45	1382	108	77	129	80	107	1637	56	3869
0345-0445	53	186	32	40	1379	121	78	142	83	100	1658	53	3925
0400-0500	52	181	28	37	1381	118	80	137	90	99	1649	60	3912
0415-0515	48	192	28	37	1433	127	80	147	92	98	1610	64	3956
0430-0530	49	197	34	35	1431	113	71	154	102	100	1612	60	3958
0445-0545	50	181	36	40	1463	110	73	158	106	95	1602	64	3978
0500-0600	51	174	39	43	1513	117	76	169	102	94	1618	56	4052

P.M. PEAK HOUR
0500-0600



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

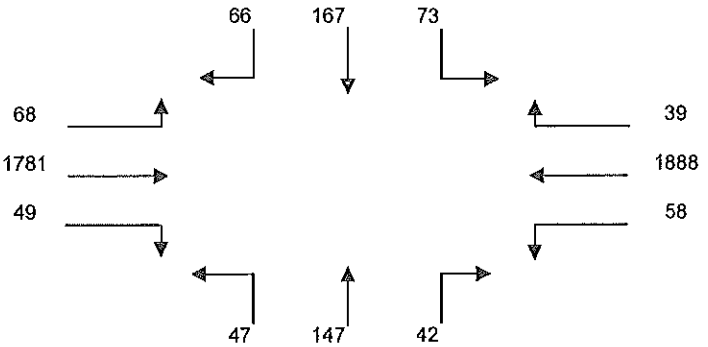
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON - NATIONAL EMC / CULVER CITY
DATE: WEDNESDAY, MARCH 11, 2009
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S BAGLEY AVENUE
E/W VENICE BOULEVARD
FILE NUMBER: 6-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	7	11	9	2	341	8	9	19	10	2	281	8
0715-0730	10	16	10	6	419	8	7	20	9	3	334	9
0730-0745	10	22	14	7	497	9	7	30	7	5	381	14
0745-0800	15	39	19	9	483	9	10	39	10	13	409	19
0800-0815	19	42	18	10	473	10	13	28	11	10	444	19
0815-0830	16	42	20	10	451	16	10	36	14	14	459	15
0830-0845	16	44	16	10	481	23	9	44	12	12	469	15
0845-0900	14	39	22	13	440	20	8	33	12	13	411	15
0900-0915	14	33	17	11	432	23	10	20	7	15	399	13
0915-0930	14	26	16	9	401	18	8	20	10	17	364	13
0930-0945	16	28	18	8	399	25	10	20	12	12	371	14
0940-1000	13	26	16	8	347	29	9	10	9	12	340	15

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	42	88	52	24	1740	34	33	108	36	23	1405	50	3635
0715-0815	54	119	61	32	1872	36	37	117	37	31	1568	61	4025
0730-0830	60	145	71	36	1904	44	40	133	42	42	1693	67	4277
0745-0845	66	167	73	39	1888	58	42	147	47	49	1781	68	4425
0800-0900	65	167	76	43	1845	69	40	141	49	49	1783	64	4391
0815-0915	60	158	75	44	1804	82	37	133	45	54	1738	58	4288
0830-0930	58	142	71	43	1754	84	35	117	41	57	1643	56	4101
0845-0945	58	126	73	41	1672	86	36	93	41	57	1545	55	3883
0900-1000	57	113	67	36	1579	95	37	70	38	56	1474	55	3677

A.M. PEAK HOUR
0745-0845



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

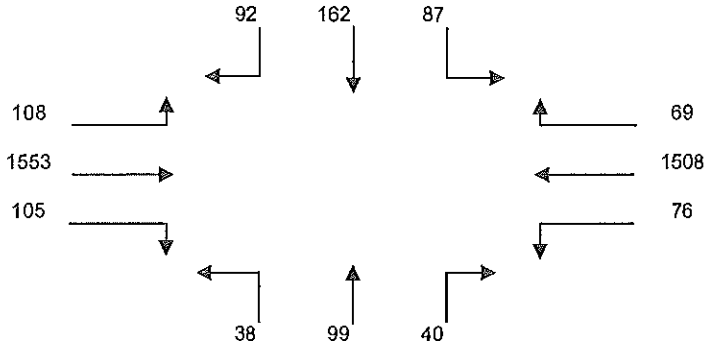
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON - NATIONAL EMC / CULVER CITY
DATE: WEDNESDAY, MARCH 11, 2009
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION N/S BAGLEY AVENUE
E/W VENICE BOULEVARD
FILE NUMBER: 6-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	15	31	12	9	369	16	7	10	6	16	380	23
0315-0330	14	33	16	14	374	19	6	14	4	19	425	18
0330-0345	20	29	11	12	355	15	11	14	7	23	404	15
0345-0400	20	28	12	12	353	18	6	15	9	17	437	15
0400-0415	16	35	15	15	331	18	7	13	10	22	397	16
0415-0430	23	24	19	19	355	17	9	18	9	28	394	18
0430-0445	26	29	17	11	352	15	7	18	5	31	408	23
0445-0500	19	31	17	14	353	19	6	22	9	29	397	20
0500-0515	20	37	21	15	377	15	9	27	9	25	358	24
0515-0530	24	45	19	20	348	18	10	21	11	26	384	27
0530-0545	22	41	23	19	379	24	10	26	7	28	411	26
0545-0600	26	39	24	15	404	19	11	25	11	26	400	31

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0400	69	121	51	47	1451	68	30	53	26	75	1646	71	3708
0315-0415	70	125	54	53	1413	70	30	56	30	81	1663	64	3709
0330-0430	79	116	57	58	1394	68	33	60	35	90	1632	64	3686
0345-0445	85	116	63	57	1391	68	29	64	33	98	1636	72	3712
0400-0500	84	119	68	59	1391	69	29	71	33	110	1596	77	3706
0415-0515	88	121	74	59	1437	66	31	85	32	113	1557	85	3748
0430-0530	89	142	74	60	1430	67	32	88	34	111	1547	94	3768
0445-0545	85	154	80	68	1457	76	35	96	36	108	1550	97	3842
0500-0600	92	162	87	69	1508	76	40	99	38	105	1553	108	3937

P.M. PEAK HOUR
0500-0600



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

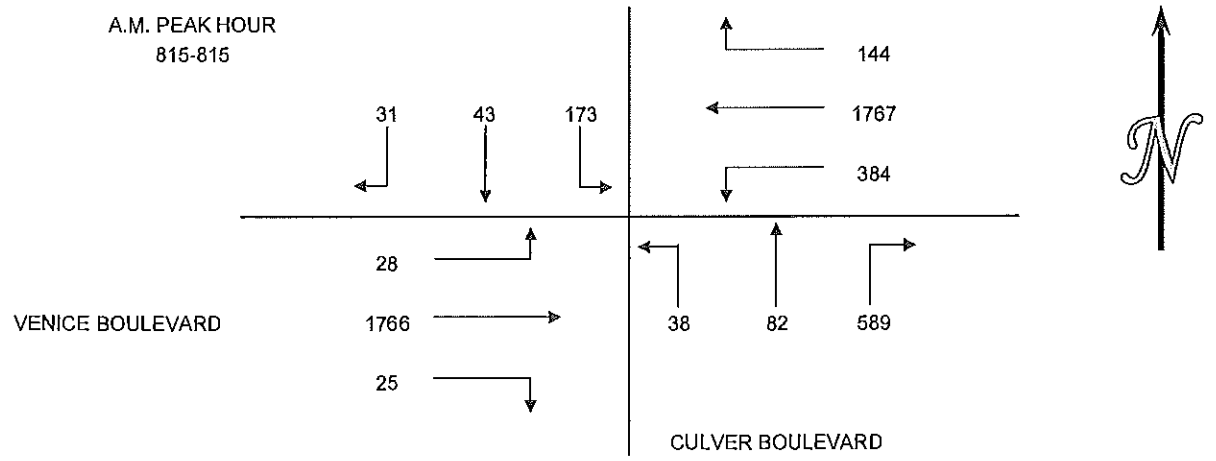
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: TUESDAY SEPTEMBER 9, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: 7 N/S CULVER BOULEVARD
E/W VENICE BOULEVARD

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	12	6	37	39	350	52	124	3	5	3	249	2	882
715-730	8	11	28	20	409	75	156	8	3	1	318	4	1041
730-745	4	5	42	22	431	99	135	5	6	4	356	5	1114
745-800	10	3	52	33	395	108	165	12	11	5	398	9	1201
800-815	13	11	60	59	434	96	185	17	6	2	424	9	1316
815-830	2	8	43	35	399	86	150	29	9	5	408	2	1176
830-845	10	12	40	37	425	88	128	25	10	8	438	9	1230
845-900	6	9	49	33	450	99	151	19	11	4	465	8	1304
900-915	13	14	41	39	493	111	160	9	8	8	455	9	1360
915-930	11	9	26	29	405	91	127	7	10	5	433	10	1163
930-945	7	7	45	44	395	82	130	8	21	8	406	9	1162
945-1000	7	7	36	48	367	80	106	13	13	3	315	7	1002

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	34	25	159	114	1585	334	580	28	25	13	1321	20	4238
715-815	35	30	182	134	1669	378	641	42	26	12	1496	27	4672
730-830	29	27	197	149	1659	389	635	63	32	16	1586	25	4807
745-845	35	34	195	164	1653	378	628	83	36	20	1668	29	4923
800-900	31	40	192	164	1708	369	614	90	36	19	1735	28	5026
815-815	31	43	173	144	1767	384	589	82	38	25	1766	28	5070
830-930	40	44	156	138	1773	389	566	60	39	25	1791	36	5057
845-945	37	39	161	145	1743	383	568	43	50	25	1759	36	4989
900-1000	38	37	148	160	1660	364	523	37	52	24	1609	35	4687



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

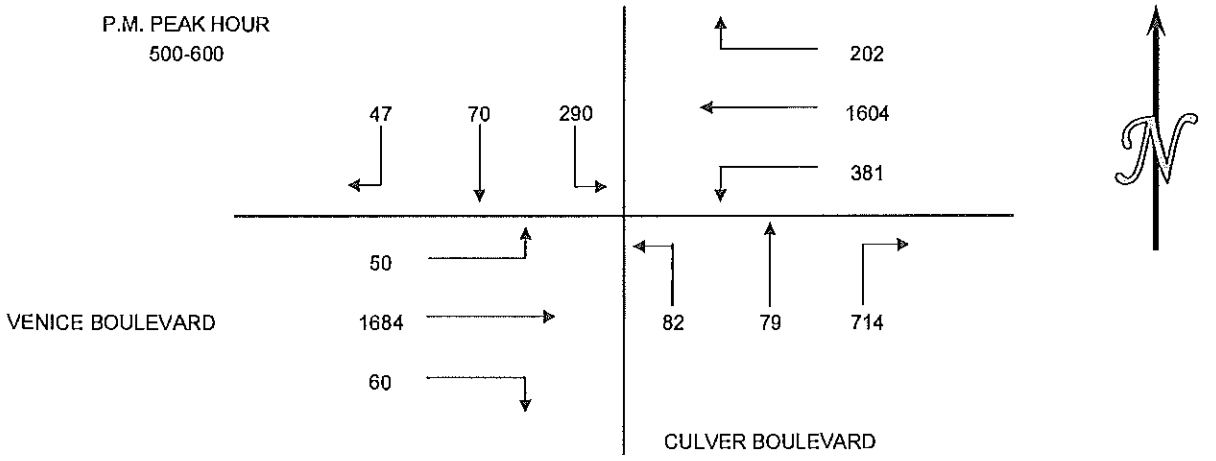
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: TUESDAY SEPTEMBER 9, 2008
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: 7 N/S CULVER BOULEVARD
E/W VENICE BOULEVARD

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-315	14	8	62	47	223	76	149	11	10	13	365	8	986
315-330	13	7	64	54	235	85	138	15	16	19	399	21	1066
330-345	6	12	71	56	251	94	158	17	21	20	394	5	1105
345-400	16	23	89	71	299	85	171	34	20	21	422	11	1262
400-415	7	11	62	41	296	91	130	23	13	12	391	11	1088
415-430	15	22	66	55	259	100	175	16	31	16	403	8	1166
430-445	11	13	72	60	273	122	182	20	21	19	427	8	1228
445-500	10	28	77	39	308	100	167	37	16	17	391	10	1200
500-515	15	19	73	43	361	100	206	18	19	14	429	12	1309
515-530	7	19	73	53	405	88	172	21	23	14	438	10	1323
530-545	12	16	60	46	394	86	169	16	18	18	402	17	1254
545-600	13	16	84	60	444	107	167	24	22	14	415	11	1377

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-400	49	50	286	228	1008	340	616	77	67	73	1580	45	4419
315-415	42	53	286	222	1081	355	597	89	70	72	1606	48	4521
330-430	44	68	288	223	1105	370	634	90	85	69	1610	35	4621
345-445	49	69	289	227	1127	398	658	93	85	68	1643	38	4744
400-500	43	74	277	195	1136	413	654	96	81	64	1612	37	4682
415-515	51	82	288	197	1201	422	730	91	87	66	1650	38	4903
430-530	43	79	295	195	1347	410	727	96	79	64	1685	40	5060
445-545	44	82	283	181	1468	374	714	92	76	63	1660	49	5086
500-600	47	70	290	202	1604	381	714	79	82	60	1684	50	5263



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

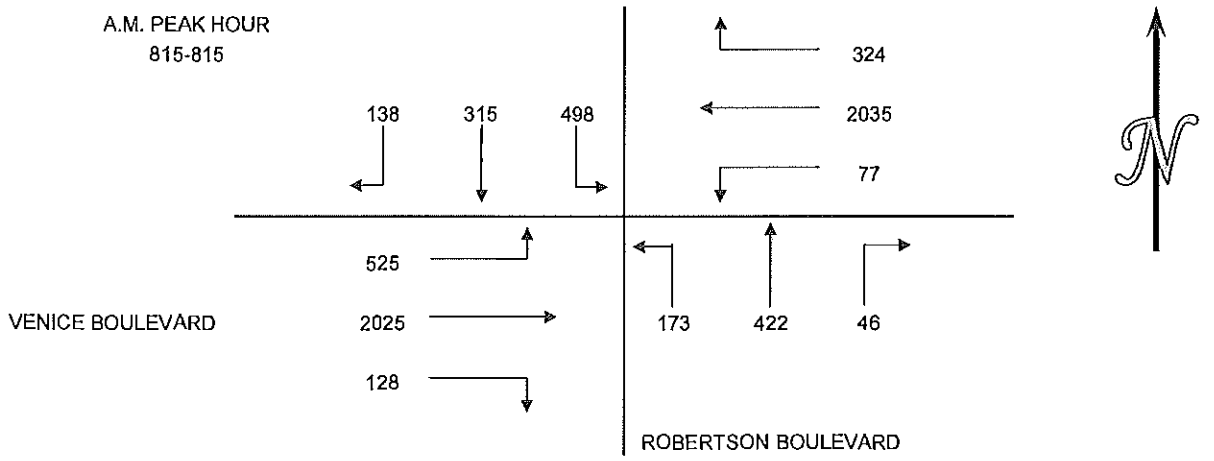
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: TUESDAY SEPTEMBER 9, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: 8 N/S ROBERTSON BOULEVARD
E/W VENICE BOULEVARD

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	21	43	69	53	379	5	1	89	16	14	347	83	1120
715-730	12	53	94	85	410	2	9	103	24	17	391	82	1282
730-745	29	60	114	100	467	9	2	105	36	16	459	84	1481
745-800	35	73	137	93	519	20	7	122	50	22	444	126	1648
800-815	29	67	128	88	453	9	6	96	31	23	489	103	1522
815-830	44	63	154	100	480	6	13	109	44	22	534	94	1663
830-845	31	74	131	83	479	11	11	111	35	25	482	122	1595
845-900	32	81	116	74	503	21	10	95	36	34	507	161	1670
900-915	31	97	97	67	573	39	12	107	58	47	502	148	1778
915-930	26	106	73	51	557	33	30	105	32	44	482	119	1658
930-945	39	89	85	40	470	27	16	82	24	24	439	97	1432
945-1000	53	62	95	46	387	19	9	63	21	17	354	86	1212

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	97	229	414	331	1775	36	19	419	126	69	1641	375	5531
715-815	105	253	473	366	1849	40	24	426	141	78	1783	395	5933
730-830	137	263	533	381	1919	44	28	432	161	83	1926	407	6314
745-845	139	277	550	364	1931	46	37	438	160	92	1949	445	6428
800-900	136	285	529	345	1915	47	40	411	146	104	2012	480	6450
815-815	138	315	498	324	2035	77	46	422	173	128	2025	525	6706
830-930	120	358	417	275	2112	104	63	418	161	150	1973	550	6701
845-945	128	373	371	232	2103	120	68	389	150	149	1930	525	6538
900-1000	149	354	350	204	1987	118	67	357	135	132	1777	450	6080



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

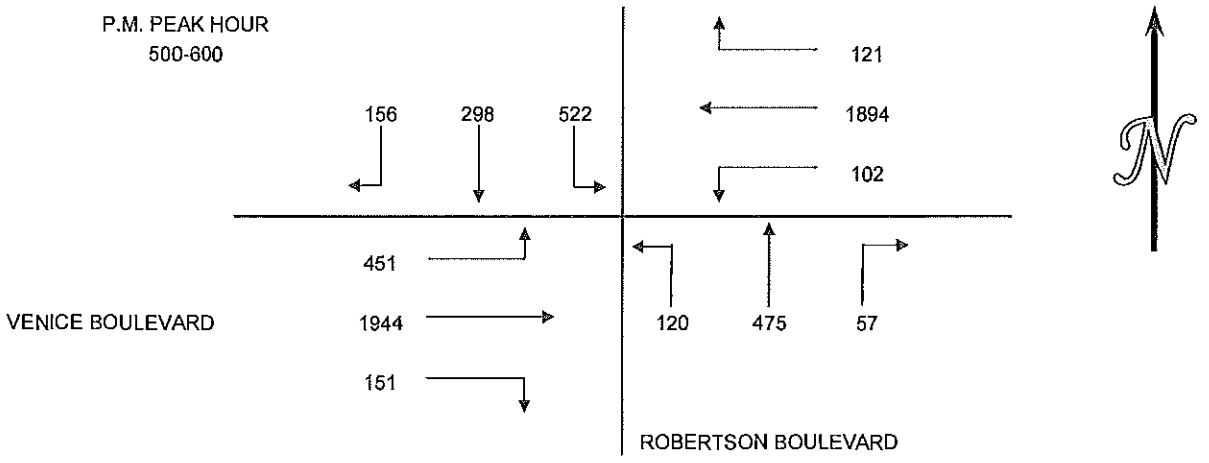
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: TUESDAY SEPTEMBER 9, 2008
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: 8 N/S ROBERTSON BOULEVARD
E/W VENICE BOULEVARD

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-315	22	84	157	36	353	19	16	78	13	38	437	110	1363
315-330	20	65	136	22	341	11	9	98	21	25	458	96	1302
330-345	25	67	164	35	334	29	14	102	26	33	499	110	1438
345-400	17	79	156	29	353	26	11	88	18	43	493	87	1400
400-415	13	70	161	36	381	18	11	77	24	33	484	106	1414
415-430	15	70	149	25	363	21	17	89	20	37	509	108	1423
430-445	25	69	145	27	380	22	13	82	16	41	475	94	1389
445-500	31	70	165	27	427	20	18	101	18	45	520	113	1555
500-515	24	74	120	36	442	15	12	113	29	35	523	119	1542
515-530	49	77	135	27	480	27	22	137	29	33	461	92	1569
530-545	44	65	100	35	506	26	13	127	36	41	488	119	1600
545-600	39	82	167	23	466	34	10	98	26	42	472	121	1580

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-400	84	295	613	122	1381	85	50	366	78	139	1887	403	5503
315-415	75	281	617	122	1409	84	45	365	89	134	1934	399	5554
330-430	70	286	630	125	1431	94	53	356	88	146	1985	411	5675
345-445	70	288	611	117	1477	87	52	336	78	154	1961	395	5626
400-500	84	279	620	115	1551	81	59	349	78	156	1988	421	5781
415-515	95	283	579	115	1612	78	60	385	83	158	2027	434	5909
430-530	129	290	565	117	1729	84	65	433	92	154	1979	418	6055
445-545	148	286	520	125	1855	88	65	478	112	154	1992	443	6266
500-600	156	298	522	121	1894	102	57	475	120	151	1944	451	6291



*Counts provided by the City of Culver City.

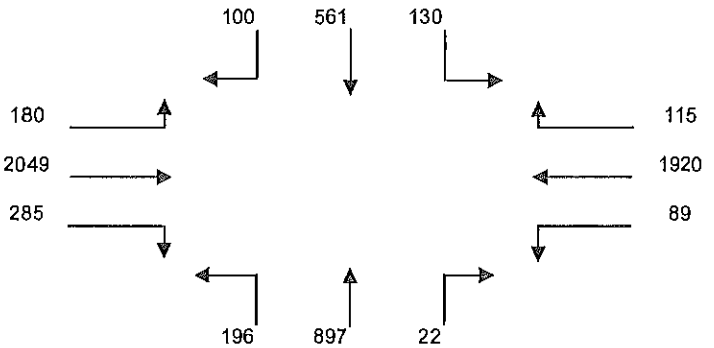
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON / NATIONAL EMC
DATE: WEDNESDAY, APRIL 28, 2010
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S NATIONAL BOULEVARD
E/W VENICE BOULEVARD
FILE NUMBER: 9-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	9	65	10	14	355	8	4	200	69	19	225	37
0715-0730	13	73	13	23	375	10	6	218	78	26	334	25
0730-0745	17	100	15	21	475	9	3	240	69	49	399	33
0745-0800	26	126	27	25	555	16	4	255	60	68	444	40
0800-0815	25	150	29	30	480	23	5	240	50	75	475	41
0815-0830	23	137	33	27	450	27	3	240	49	80	520	42
0830-0845	30	132	35	28	476	20	7	207	47	57	514	47
0845-0900	22	142	33	30	514	19	7	210	50	73	540	50
0900-0915	27	137	30	26	463	16	8	226	43	62	440	40
0915-0930	31	155	34	28	392	15	8	230	37	65	421	34
0930-0945	24	132	40	31	352	19	5	219	38	58	345	37
0945-1000	26	158	36	32	399	14	7	217	41	49	315	41

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	65	364	65	83	1760	43	17	913	276	162	1402	135	5285
0715-0815	81	449	84	99	1885	58	18	953	257	218	1652	139	5893
0730-0830	91	513	104	103	1960	75	15	975	228	272	1838	156	6330
0745-0845	104	545	124	110	1961	86	19	942	206	280	1953	170	6500
0800-0900	100	561	130	115	1920	89	22	897	196	285	2049	180	6544
0815-0915	102	548	131	111	1903	82	25	883	189	272	2014	179	6439
0830-0930	110	566	132	112	1845	70	30	873	177	257	1915	171	6258
0845-0945	104	566	137	115	1721	69	28	885	168	258	1746	161	5958
0900-1000	108	582	140	117	1606	64	28	892	159	234	1521	152	5603

A.M. PEAK HOUR
0800-0900



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

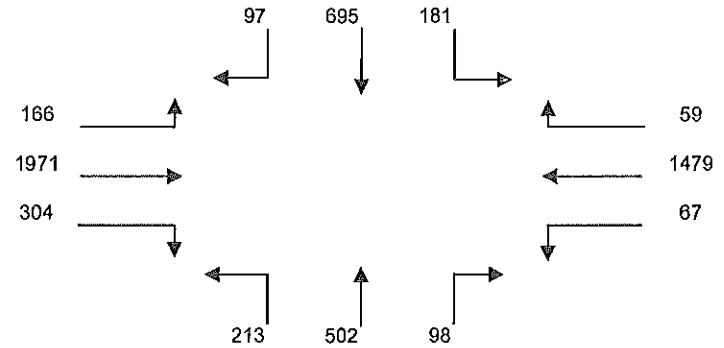
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON / NATIONAL EMC
DATE: WEDNESDAY, APRIL 28, 2010
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION N/S NATIONAL BOULEVARD
E/W VENICE BOULEVARD
FILE NUMBER: 9-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	14	137	34	24	338	19	20	166	51	90	405	53
0315-0330	17	130	24	20	283	17	20	134	41	93	371	36
0330-0345	19	134	39	16	359	19	18	133	47	86	449	40
0345-0400	23	120	32	18	315	25	21	108	43	103	434	51
0400-0415	22	146	42	22	338	18	29	107	49	82	466	48
0415-0430	26	144	49	19	324	12	35	133	52	109	490	33
0430-0445	34	145	32	16	319	16	24	148	56	79	411	31
0445-0500	23	131	32	17	308	15	20	116	61	87	471	35
0500-0515	23	151	44	17	372	19	28	114	47	98	512	39
0515-0530	31	194	47	13	385	15	21	120	53	66	464	47
0530-0545	20	180	40	14	323	18	24	123	52	75	496	46
0545-0600	23	170	50	15	399	15	25	145	61	65	499	34

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0400	73	521	129	78	1295	80	79	541	182	372	1659	180	5189
0315-0415	81	530	137	76	1295	79	88	482	180	364	1720	175	5207
0330-0430	90	544	162	75	1336	74	103	481	191	380	1839	172	5447
0345-0445	105	555	155	75	1296	71	109	496	200	373	1801	163	5399
0400-0500	105	566	155	74	1289	61	108	504	218	357	1838	147	5422
0415-0515	106	571	157	69	1323	62	107	511	216	373	1884	138	5517
0430-0530	111	621	155	63	1384	65	93	498	217	330	1858	152	5547
0445-0545	97	656	163	61	1388	67	93	473	213	326	1943	167	5647
0500-0600	97	695	181	59	1479	67	98	502	213	304	1971	166	5832

P.M. PEAK HOUR
0500-0600



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

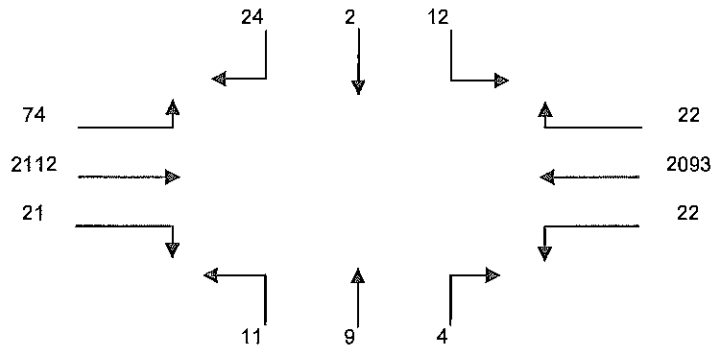
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON / NATIONAL EMC
DATE: WEDNESDAY, APRIL 28, 2010
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S HELMS AVENUE
E/W VENICE BOULEVARD
FILE NUMBER: 10-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	5	1	1	3	314	3	2	0	0	1	236	8
0715-0730	5	2	4	4	461	5	1	0	0	1	319	10
0730-0745	6	1	3	4	526	4	0	0	2	2	413	11
0745-0800	11	1	6	2	531	7	0	1	5	3	438	14
0800-0815	5	1	2	4	502	6	1	0	5	6	537	16
0815-0830	5	0	4	3	549	3	0	4	2	3	517	16
0830-0845	6	0	4	5	522	5	0	2	2	7	512	18
0845-0900	8	1	2	10	520	8	3	3	2	5	546	24
0900-0915	4	1	2	10	478	8	1	1	4	10	475	22
0915-0930	2	1	2	5	461	7	1	0	6	5	419	22
0930-0945	2	1	2	6	422	3	2	2	3	5	345	17
0945-1000	4	2	2	10	414	5	1	2	3	3	331	12

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	27	5	14	13	1832	19	3	1	7	7	1406	43	3377
0715-0815	27	5	15	14	2020	22	2	1	12	12	1707	51	3888
0730-0830	27	3	15	13	2108	20	1	5	14	14	1905	57	4182
0745-0845	27	2	16	14	2104	21	1	7	14	19	2004	64	4293
0800-0900	24	2	12	22	2093	22	4	9	11	21	2112	74	4406
0815-0915	23	2	12	28	2069	24	4	10	10	25	2050	80	4337
0830-0930	20	3	10	30	1981	28	5	6	14	27	1952	86	4162
0845-0945	16	4	8	31	1881	26	7	6	15	25	1785	85	3889
0900-1000	12	5	8	31	1775	23	5	5	16	23	1570	73	3546

A.M. PEAK HOUR
0800-0900



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

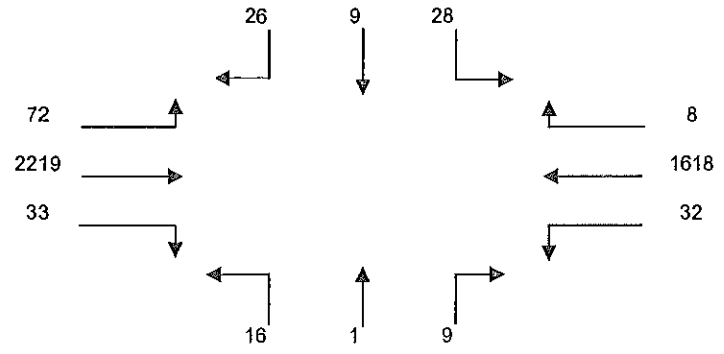
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON / NATIONAL EMC
DATE: WEDNESDAY, APRIL 28, 2010
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION N/S HELMS AVENUE
E/W VENICE BOULEVARD
FILE NUMBER: 10-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	7	2	2	2	344	9	2	1	6	6	393	13
0315-0330	3	2	4	1	339	11	3	2	4	10	457	14
0330-0345	6	1	3	1	326	6	2	3	5	16	492	17
0345-0400	5	2	5	1	341	5	4	1	9	12	508	20
0400-0415	8	0	5	2	337	6	8	2	5	9	475	16
0415-0430	8	0	4	3	354	4	5	0	5	5	590	19
0430-0445	8	0	2	1	385	7	3	1	7	8	478	19
0445-0500	4	1	4	2	340	8	2	1	8	7	577	19
0500-0515	4	2	6	5	389	9	4	0	5	10	504	19
0515-0530	6	2	6	2	442	7	2	0	2	11	520	19
0530-0545	8	2	7	0	370	8	1	1	4	7	582	16
0545-0600	8	3	9	1	417	8	2	0	5	5	613	18

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0400	21	7	14	5	1350	31	11	7	24	44	1850	64	3428
0315-0415	22	5	17	5	1343	28	17	8	23	47	1932	67	3514
0330-0430	27	3	17	7	1358	21	19	6	24	42	2065	72	3661
0345-0445	29	2	16	7	1417	22	20	4	26	34	2051	74	3702
0400-0500	28	1	15	8	1416	25	18	4	25	29	2120	73	3762
0415-0515	24	3	16	11	1468	28	14	2	25	30	2149	76	3846
0430-0530	22	5	18	10	1556	31	11	2	22	36	2079	76	3868
0445-0545	22	7	23	9	1541	32	9	2	19	35	2183	73	3955
0500-0600	26	9	28	8	1618	32	9	1	16	33	2219	72	4071

P.M. PEAK HOUR
0500-0600



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

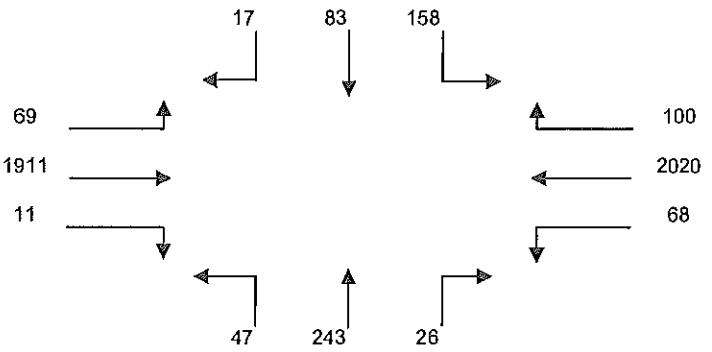
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON / NATIONAL EMC
DATE: WEDNESDAY, APRIL 28, 2010
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S CATTARAUGUS AVENUE
E/W VENICE BOULEVARD
FILE NUMBER: 11-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	3	5	15	23	302	11	1	30	6	2	239	7
0715-0730	2	10	26	41	438	11	3	52	9	2	321	8
0730-0745	3	15	33	47	518	18	7	87	12	1	388	8
0745-0800	6	24	45	39	537	17	4	77	12	2	432	14
0800-0815	4	29	46	26	468	19	5	60	12	4	529	15
0815-0830	5	20	31	16	470	19	7	56	13	3	441	19
0830-0845	2	10	36	19	545	13	10	50	10	2	509	21
0845-0900	4	7	22	18	527	17	6	30	11	3	491	21
0900-0915	7	5	22	11	463	12	4	39	7	6	473	17
0915-0930	6	4	25	13	436	17	5	26	6	2	409	21
0930-0945	3	6	17	9	462	22	3	22	5	3	333	12
0945-1000	3	9	18	10	441	15	5	13	3	1	300	15

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6A WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12A EBLT	TOTALS
0700-0800	14	54	119	150	1795	57	15	246	39	7	1380	37	3913
0715-0815	15	78	150	153	1961	65	19	276	45	9	1670	45	4486
0730-0830	18	88	155	128	1993	73	23	280	49	10	1790	56	4663
0745-0845	17	83	158	100	2020	68	26	243	47	11	1911	69	4753
0800-0900	15	66	135	79	2010	68	28	196	46	12	1970	76	4701
0815-0915	18	42	111	64	2005	61	27	175	41	14	1914	78	4550
0830-0930	19	26	105	61	1971	59	25	145	34	13	1882	80	4420
0845-0945	20	22	86	51	1888	68	18	117	29	14	1706	71	4090
0900-1000	19	24	82	43	1802	66	17	100	21	12	1515	65	3766

A.M. PEAK HOUR
0745-0845



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

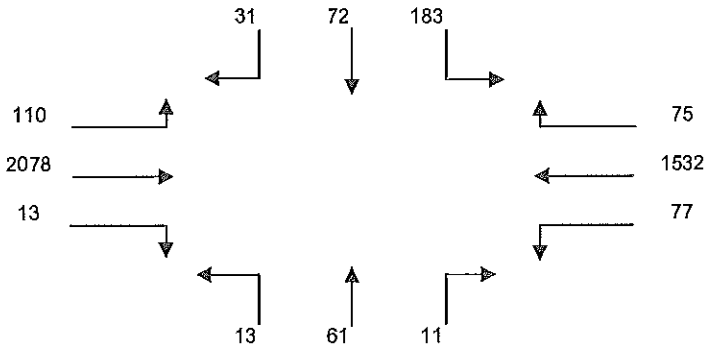
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON / NATIONAL EMC
DATE: WEDNESDAY, APRIL 28, 2010
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION N/S CATTARAUGUS AVENUE
E/W VENICE BOULEVARD
FILE NUMBER: 11-PM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0300-0315	4	28	43	19	334	17	7	23	2	5	370	21
0315-0330	6	18	63	14	285	17	9	17	5	6	426	24
0330-0345	5	22	40	19	387	25	5	13	3	5	488	24
0345-0400	4	17	39	15	276	16	3	12	3	3	445	20
0400-0415	5	15	35	11	313	21	4	19	6	2	421	25
0415-0430	3	19	44	18	302	18	2	17	4	7	477	23
0430-0445	2	19	56	13	431	22	2	21	4	8	507	15
0445-0500	6	15	33	14	315	18	2	12	3	5	562	21
0500-0515	8	22	50	18	362	18	5	19	3	3	471	30
0515-0530	8	16	37	17	343	18	2	17	2	2	511	26
0530-0545	9	19	48	19	446	20	2	15	4	3	569	30
0545-0600	6	15	48	21	381	21	2	10	4	5	527	24

1 HOUR	1	2	3	4	5	6A	7	8	9	10	11	12A	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0300-0400	19	85	185	67	1282	75	24	65	13	19	1729	89	3633
0315-0415	20	72	177	59	1261	79	21	61	17	16	1780	93	3636
0330-0430	17	73	158	63	1278	80	14	61	16	17	1831	92	3683
0345-0445	14	70	174	57	1322	77	11	69	17	20	1850	83	3750
0400-0500	16	68	168	56	1361	79	10	69	17	22	1967	84	3901
0415-0515	19	75	183	63	1410	76	11	69	14	23	2017	89	4030
0430-0530	24	72	176	62	1451	76	11	69	12	18	2051	92	4090
0445-0545	31	72	168	68	1466	74	11	63	12	13	2113	107	4167
0500-0600	31	72	183	75	1532	77	11	61	13	13	2078	110	4225

P.M. PEAK HOUR
0500-0600



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

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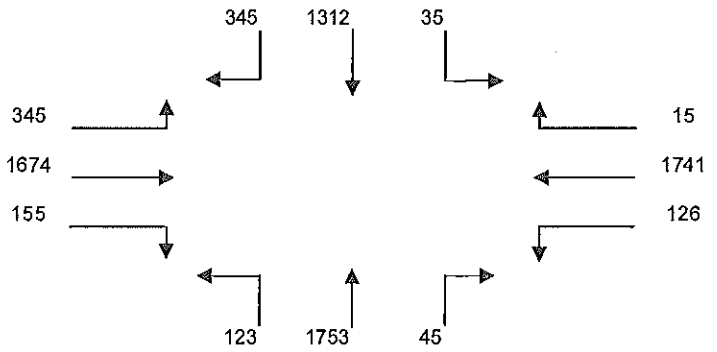
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON / NATIONAL EMC
DATE: THURSDAY, APRIL 29, 2010
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S LA CIENEGA BOULEVARD
E/W VENICE BOULEVARD
FILE NUMBER: 12-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	54	221	3	4	292	21	12	400	22	13	206	47
0715-0730	62	222	4	4	370	22	9	390	37	20	300	60
0730-0745	66	265	6	7	469	30	7	401	40	31	321	66
0745-0800	81	315	7	4	436	34	13	455	36	39	333	88
0800-0815	86	395	9	3	455	31	14	443	33	49	444	82
0815-0830	92	304	9	5	405	39	8	409	24	36	442	87
0830-0845	86	298	10	3	445	22	10	446	30	31	455	88
0845-0900	112	301	16	7	390	34	6	427	25	24	399	55
0900-0915	113	279	10	6	401	28	7	372	24	22	395	81
0915-0930	108	258	10	4	333	31	6	305	18	24	351	67
0930-0945	72	259	11	6	351	33	5	289	18	24	325	51
0945-1000	99	266	15	3	322	29	8	298	22	21	230	44

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	263	1023	20	19	1567	107	41	1646	135	103	1160	261	6345
0715-0815	295	1197	26	18	1730	117	43	1689	146	139	1398	296	7094
0730-0830	325	1279	31	19	1765	134	42	1708	133	155	1540	323	7454
0745-0845	345	1312	35	15	1741	126	45	1753	123	155	1674	345	7669
0800-0900	376	1298	44	18	1695	126	38	1725	112	140	1740	312	7624
0815-0915	403	1182	45	21	1641	123	31	1654	103	113	1691	311	7318
0830-0930	419	1136	46	20	1569	115	29	1550	97	101	1600	291	6973
0845-0945	405	1097	47	23	1475	126	24	1393	85	94	1470	254	6493
0900-1000	392	1062	46	19	1407	121	26	1264	82	91	1301	243	6054

A.M. PEAK HOUR
0745-0845



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

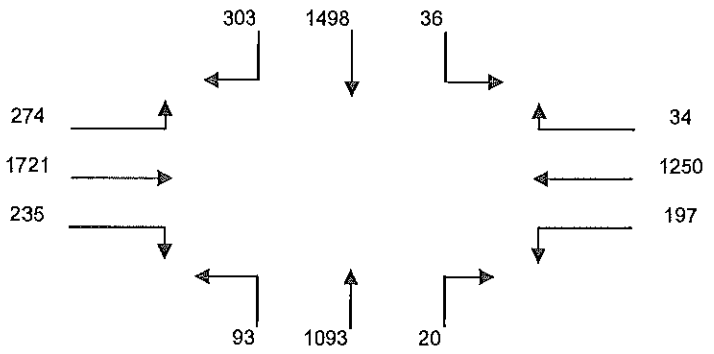
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON / NATIONAL EMC
DATE: THURSDAY, APRIL 29, 2010
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION N/S LA CIENEGA BOULEVARD
E/W VENICE BOULEVARD
FILE NUMBER: 12-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	92	318	7	8	247	35	5	242	28	48	298	86
0315-0330	86	344	11	12	249	55	10	242	22	76	330	72
0330-0345	61	305	13	7	238	43	7	251	17	52	364	53
0345-0400	71	316	18	8	271	37	8	255	17	65	391	56
0400-0415	70	332	11	6	239	59	6	248	22	55	382	74
0415-0430	72	390	8	8	284	56	8	279	15	40	367	74
0430-0445	86	404	13	6	262	42	5	280	21	66	380	60
0445-0500	90	386	9	5	259	48	7	261	20	53	449	63
0500-0515	67	370	8	5	293	39	10	268	15	69	400	63
0515-0530	82	410	12	6	328	54	5	277	21	52	446	71
0530-0545	78	387	10	10	290	52	3	275	29	54	431	71
0545-0600	76	331	6	13	339	52	2	273	28	60	444	69

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0400	310	1283	49	35	1005	170	30	990	84	241	1383	267	5847
0315-0415	288	1297	53	33	997	194	31	996	78	248	1467	255	5937
0330-0430	274	1343	50	29	1032	195	29	1033	71	212	1504	257	6029
0345-0445	299	1442	50	28	1056	194	27	1062	75	226	1520	264	6243
0400-0500	318	1512	41	25	1044	205	26	1068	78	214	1578	271	6380
0415-0515	315	1550	38	24	1098	185	30	1088	71	228	1596	260	6483
0430-0530	325	1570	42	22	1142	183	27	1086	77	240	1675	257	6646
0445-0545	317	1553	39	26	1170	193	25	1081	85	228	1726	268	6711
0500-0600	303	1498	36	34	1250	197	20	1093	93	235	1721	274	6754

P.M. PEAK HOUR
0500-0600



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

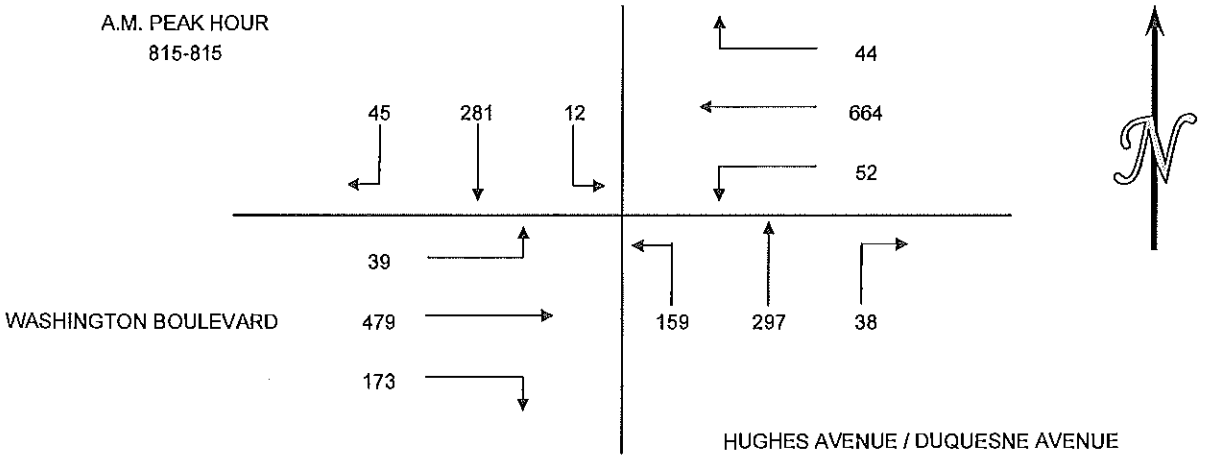
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 11, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: 13 N/S HUGHES AVENUE / DUQUESNE AVENUE
E/W WASHINGTON BOULEVARD

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	15	49	1	1	140	3	2	52	27	11	77	9	387
715-730	12	57	1	3	167	5	3	62	31	18	80	10	449
730-745	13	66	1	3	173	6	1	69	38	21	98	12	501
745-800	4	74	2	2	168	6	7	74	35	27	113	9	521
800-815	18	70	2	3	167	9	5	66	35	33	109	7	524
815-830	13	55	5	11	157	3	14	69	38	39	127	15	546
830-845	9	71	2	16	180	14	6	84	41	35	103	7	568
845-900	11	86	4	8	167	15	9	77	40	45	118	5	585
900-915	12	69	1	9	160	20	9	67	40	54	131	12	584
915-930	8	59	2	9	144	17	3	61	37	43	100	12	495
930-945	12	43	3	3	129	10	3	38	30	38	83	8	400
945-1000	7	58	3	4	130	13	8	47	34	26	62	6	398

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	44	246	5	9	648	20	13	257	131	77	368	40	1858
715-815	47	267	6	11	675	26	16	271	139	99	400	38	1995
730-830	48	265	10	19	665	24	27	278	146	120	447	43	2092
745-845	44	270	11	32	672	32	32	293	149	134	452	38	2159
800-900	51	282	13	38	671	41	34	296	154	152	457	34	2223
815-815	45	281	12	44	664	52	38	297	159	173	479	39	2283
830-930	40	285	9	42	651	66	27	289	158	177	452	36	2232
845-945	43	257	10	29	600	62	24	243	147	180	432	37	2064
900-1000	39	229	9	25	563	60	23	213	141	161	376	38	1877



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 11, 2008
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: 13 N/S HUGHES AVENUE / DUQUESNE AVENUE
E/W WASHINGTON BOULEVARD

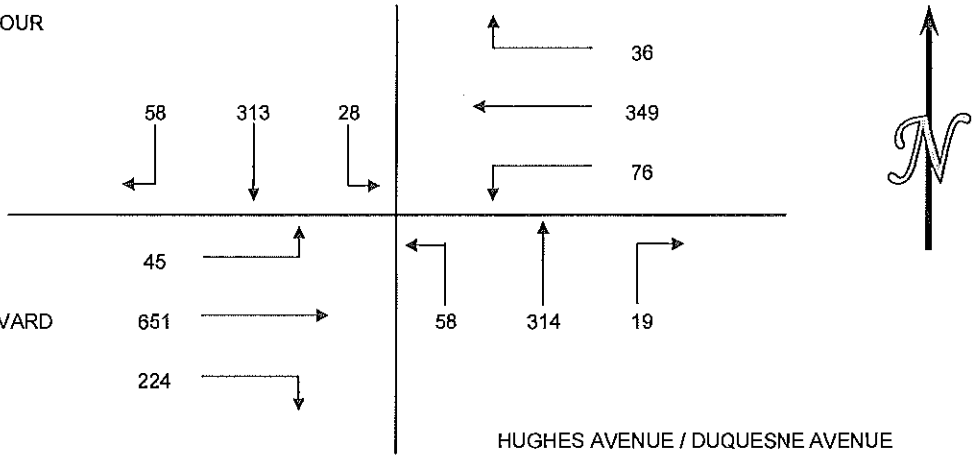
15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-315	11	56	3	9	89	8	5	66	18	47	149	15	476
315-330	7	60	1	9	91	14	6	55	14	47	108	8	420
330-345	10	69	1	1	82	9	4	71	17	48	138	9	459
345-400	8	47	6	1	97	13	4	58	14	45	153	12	458
400-415	17	63	5	6	101	11	3	76	5	54	165	12	518
415-430	8	79	2	8	84	26	4	75	16	46	133	3	484
430-445	17	60	7	15	87	28	5	80	11	49	129	14	502
445-500	21	77	6	7	97	18	3	87	13	50	155	20	554
500-515	14	83	9	7	75	24	9	87	15	53	191	11	578
515-530	10	71	8	9	91	19	5	74	21	63	153	6	530
530-545	13	82	5	13	86	15	2	66	9	58	152	8	509
545-600	23	93	12	16	95	14	8	82	13	54	127	7	544

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-400	36	232	11	20	359	44	19	250	63	187	548	44	1813
315-415	42	239	13	17	371	47	17	260	50	194	564	41	1855
330-430	43	258	14	16	364	59	15	280	52	193	589	36	1919
345-445	50	249	20	30	369	78	16	289	46	194	580	41	1962
400-500	63	279	20	36	369	83	15	318	45	199	582	49	2058
415-515	60	299	24	37	343	96	21	329	55	198	608	48	2118
430-530	62	291	30	38	350	89	22	328	60	215	628	51	2164
445-545	58	313	28	36	349	76	19	314	58	224	651	45	2171
500-600	60	329	34	45	347	72	24	309	58	228	623	32	2161

P.M. PEAK HOUR
445-545



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

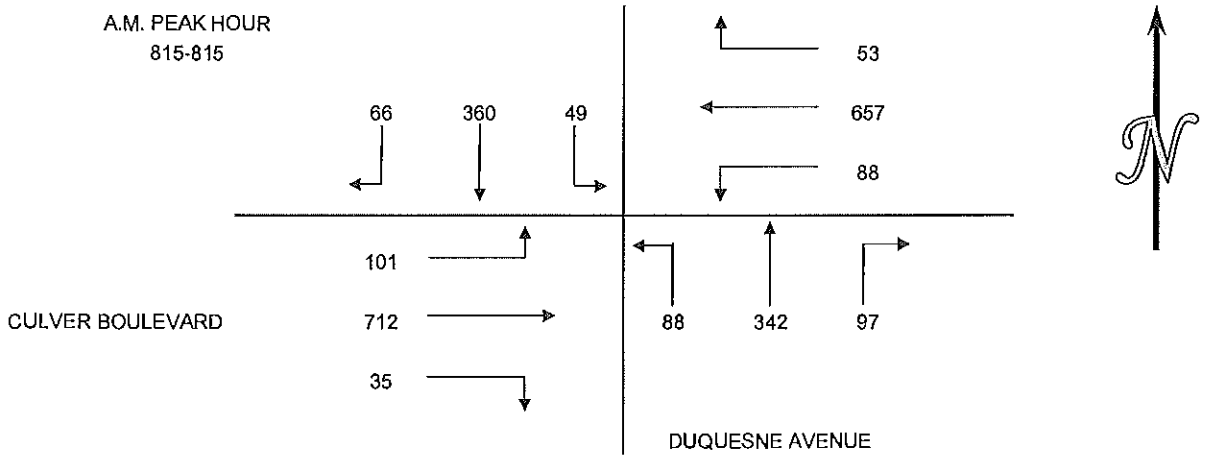
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 11, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: 14 N/S DUQUESNE AVENUE
E/W CULVER BOULEVARD

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	19	37	15	7	133	15	21	47	24	16	98	21	453
715-730	25	49	12	19	146	20	33	65	32	18	111	27	557
730-745	22	68	17	12	140	38	42	82	28	10	125	35	619
745-800	11	54	8	10	117	28	15	72	22	11	133	20	501
800-815	16	80	5	11	131	21	19	90	27	13	149	17	579
815-830	20	97	7	5	164	21	15	91	23	6	169	18	636
830-845	19	88	21	16	178	30	40	72	26	5	188	26	709
845-900	10	83	9	16	161	16	25	101	19	11	191	29	671
900-915	17	92	12	16	154	21	17	78	20	13	164	28	632
915-930	14	87	17	5	136	26	19	65	34	3	139	17	562
930-945	12	84	16	6	132	20	26	74	20	7	116	7	520
945-1000	16	68	14	2	104	16	15	70	26	5	108	12	456

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	77	208	52	48	536	101	111	266	106	55	467	103	2130
715-815	74	251	42	52	534	107	109	309	109	52	518	99	2256
730-830	69	299	37	38	552	108	91	335	100	40	576	90	2335
745-845	66	319	41	42	590	100	89	325	98	35	639	81	2425
800-900	65	348	42	48	634	88	99	354	95	35	697	90	2595
815-815	66	360	49	53	657	88	97	342	88	35	712	101	2648
830-930	60	350	59	53	629	93	101	316	99	32	682	100	2574
845-945	53	346	54	43	583	83	87	318	93	34	610	81	2385
900-1000	59	331	59	29	526	83	77	287	100	28	527	64	2170



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

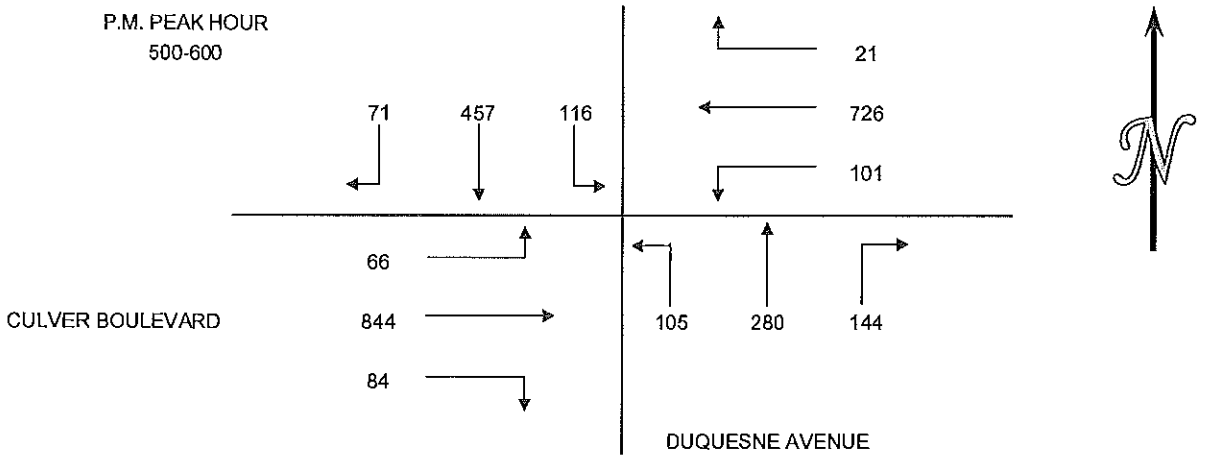
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 11, 2008
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: 14 N/S DUQUESNE AVENUE
E/W CULVER BOULEVARD

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-315	19	73	21	12	115	32	39	51	20	19	123	13	537
315-330	16	82	26	10	138	45	47	62	37	24	144	9	640
330-345	14	70	23	11	158	27	34	42	21	19	163	16	598
345-400	12	91	18	13	152	34	37	49	26	17	170	14	633
400-415	14	111	13	8	162	19	25	58	16	12	207	13	658
415-430	18	115	25	4	155	31	36	65	20	29	174	10	682
430-445	9	104	16	4	136	18	26	72	15	11	190	10	611
445-500	11	92	21	3	156	19	32	89	19	14	211	14	681
500-515	14	125	15	9	183	29	34	79	26	15	248	12	789
515-530	19	105	38	3	172	17	26	66	20	25	192	22	705
530-545	25	114	34	4	199	25	42	70	30	23	185	11	762
545-600	13	113	29	5	172	30	42	65	29	21	219	21	759

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-400	61	316	88	46	563	138	157	204	104	79	600	52	2408
315-415	56	354	80	42	610	125	143	211	100	72	684	52	2529
330-430	58	387	79	36	627	111	132	214	83	77	714	53	2571
345-445	53	421	72	29	605	102	124	244	77	69	741	47	2584
400-500	52	422	75	19	609	87	119	284	70	66	782	47	2632
415-515	52	436	77	20	630	97	128	305	80	69	823	46	2763
430-530	53	426	90	19	647	83	118	306	80	65	841	58	2786
445-545	69	436	108	19	710	90	134	304	95	77	836	59	2937
500-600	71	457	116	21	726	101	144	280	105	84	844	66	3015



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

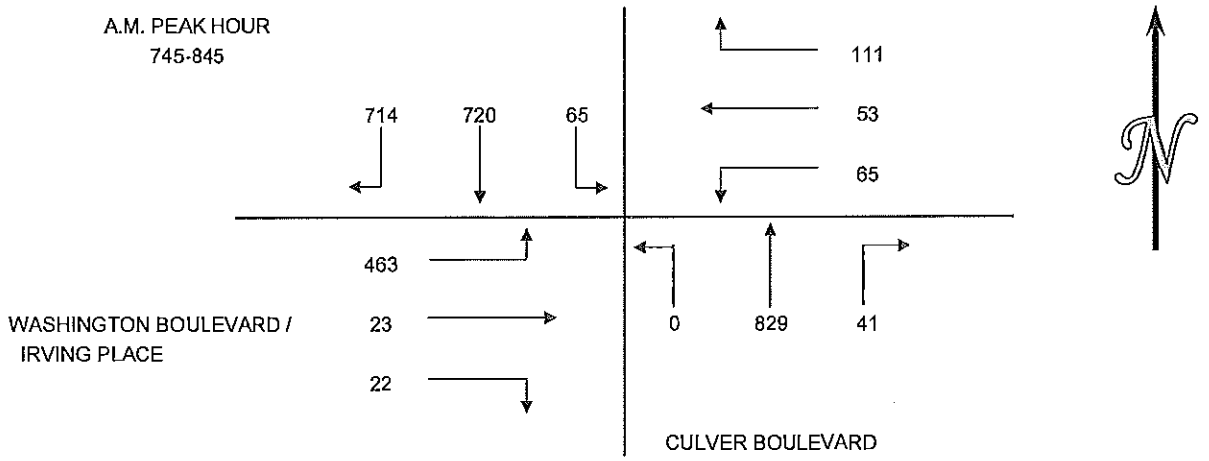
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 11, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: 15 N/S CULVER BOULEVARD
E/W WASHINGTON BOULEVARD / IRVING PLACE

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	145	126	6	15	3	6	1	122	0	1	0	78	503
715-730	154	151	3	18	7	3	7	146	0	3	1	84	577
730-745	194	161	9	16	7	9	3	181	0	0	3	103	686
745-800	169	195	14	17	5	14	9	199	0	6	9	119	756
800-815	186	188	17	26	14	17	16	221	0	2	7	101	795
815-830	170	151	29	32	20	29	11	197	0	11	7	114	771
830-845	189	186	5	36	14	5	5	212	0	3	0	129	784
845-900	181	169	8	7	4	8	3	193	0	4	3	119	699
900-915	184	180	6	17	6	6	5	202	0	3	3	119	731
915-930	146	141	13	10	12	13	1	185	0	5	2	103	631
930-945	135	120	6	14	4	6	2	169	0	2	0	96	554
945-1000	137	139	15	5	5	15	0	122	0	2	3	82	525

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	662	633	32	66	22	32	20	648	0	10	13	384	2522
715-815	703	695	43	77	33	43	35	747	0	11	20	407	2814
730-830	719	695	69	91	46	69	39	798	0	19	26	437	3008
745-845	714	720	65	111	53	65	41	829	0	22	23	463	3106
800-900	726	694	59	101	52	59	35	823	0	20	17	463	3049
815-815	724	686	48	92	44	48	24	804	0	21	13	481	2985
830-930	700	676	32	70	36	32	14	792	0	15	8	470	2845
845-945	646	610	33	48	26	33	11	749	0	14	8	437	2615
900-1000	602	580	40	46	27	40	8	678	0	12	8	400	2441



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

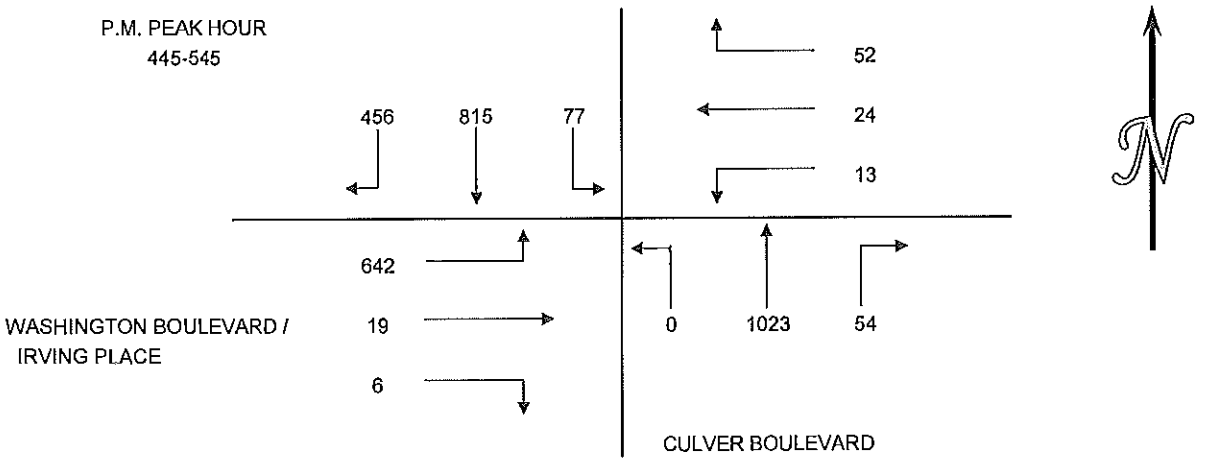
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: THURSDAY OCTOBER 2, 2008
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: 15 N/S CULVER BOULEVARD
E/W WASHINGTON BOULEVARD / IRVING PLACE

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-315	88	156	11	29	18	6	16	186	0	1	2	132	645
315-330	107	192	14	19	14	3	7	198	0	4	3	160	721
330-345	97	179	9	23	10	6	7	189	0	1	1	126	648
345-400	82	157	14	15	8	5	7	202	0	2	6	139	637
400-415	109	166	11	11	6	4	12	233	0	1	5	138	696
415-430	122	171	14	6	2	4	5	220	0	0	6	147	697
430-445	113	183	17	18	17	5	7	234	0	3	2	175	774
445-500	123	192	17	10	4	1	13	240	0	0	3	158	761
500-515	102	221	9	12	11	2	18	250	0	1	6	154	786
515-530	110	190	21	12	5	8	12	288	0	5	6	161	818
530-545	121	212	30	18	4	2	11	245	0	0	4	169	816
545-600	100	190	17	14	5	3	8	238	0	2	3	179	759

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-400	374	684	48	86	50	20	37	775	0	8	12	557	2651
315-415	395	694	48	68	38	18	33	822	0	8	15	563	2702
330-430	410	673	48	55	26	19	31	844	0	4	18	550	2678
345-445	426	677	56	50	33	18	31	889	0	6	19	599	2804
400-500	467	712	59	45	29	14	37	927	0	4	16	618	2928
415-515	460	767	57	46	34	12	43	944	0	4	17	634	3018
430-530	448	786	64	52	37	16	50	1012	0	9	17	648	3139
445-545	456	815	77	52	24	13	54	1023	0	6	19	642	3181
500-600	433	813	77	56	25	15	49	1021	0	8	19	663	3179

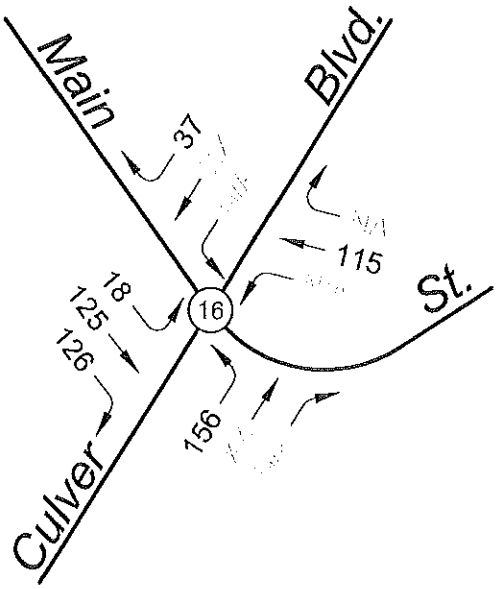


*Counts provided by the City of Culver City.

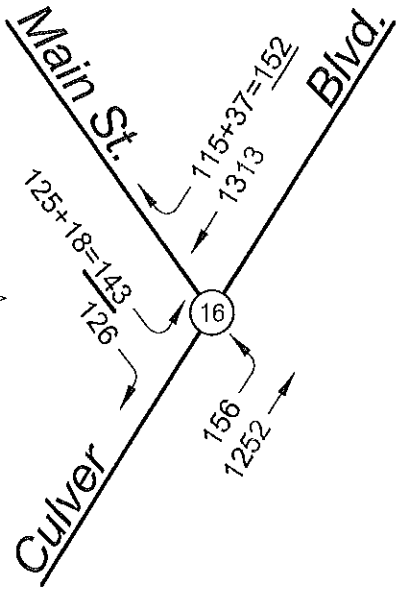
WASHINGTON-NATIONAL EMC (CULVER CITY) \ INT #16 EX-VOLS



2007 KOA SPECIFIC PLAN STUDY VOLUMES



2008 HIRSCH/GREEN STUDY VOLUMES

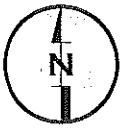


XX = INTERPOLATED FROM ADJACENT INTERSECTIONS

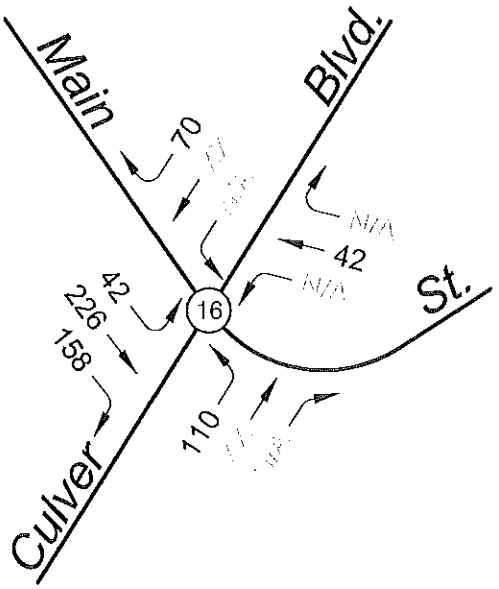
3/17/2009

*Counts provided by the City of Culver City.

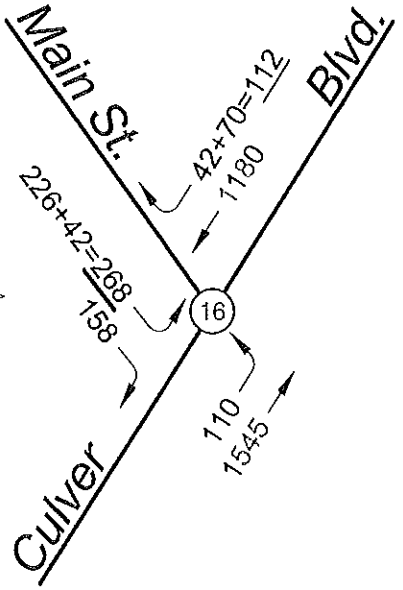
WASHINGTON-NATIONAL EMC (CULVER CITY) \ IINT #16 EX-VOLS



2007 KOA SPECIFIC PLAN STUDY VOLUMES



2008 HIRSCH/GREEN STUDY VOLUMES



XX = INTERPOLATED FROM ADJACENT INTERSECTIONS

3/17/2009

*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 11, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: 17 N/S CULVER BOULEVARD
E/W WASHINGTON BOULEVARD / CANFIELD AVENUE

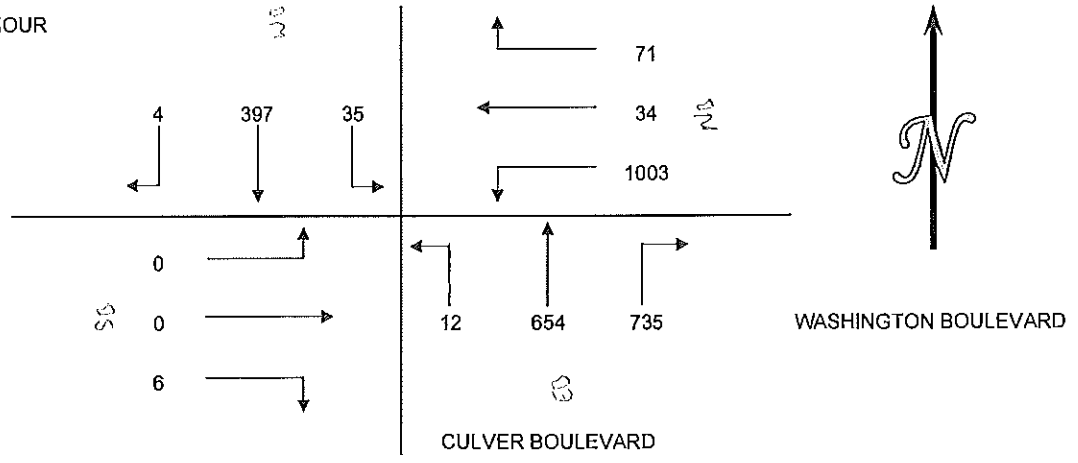
15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	1	70	5	9	2	192	97	105	2	0	2	2	487
715-730	0	85	1	8	2	241	100	129	0	0	0	0	566
730-745	0	100	5	12	3	277	154	130	4	0	0	0	685
745-800	1	106	8	11	2	239	151	134	5	0	0	0	657
800-815	0	109	9	18	8	249	170	154	2	0	0	0	719
815-830	1	90	8	18	5	255	162	169	1	0	0	0	709
830-845	2	103	9	25	9	246	215	164	5	0	0	0	778
845-900	1	95	9	10	12	253	188	167	4	6	0	0	745
900-915	0	100	12	9	7	234	161	149	2	0	0	0	674
915-930	4	85	11	13	11	201	131	166	6	1	0	0	629
930-945	4	72	13	19	2	239	117	149	4	2	0	0	621
945-1000	2	88	8	6	3	199	112	114	1	1	0	1	535

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	2	361	19	40	9	949	502	498	11	0	2	2	2395
715-815	1	400	23	49	15	1006	575	547	11	0	0	0	2627
730-830	2	405	30	59	18	1020	637	587	12	0	0	0	2770
745-845	4	408	34	72	24	989	698	621	13	0	0	0	2863
800-900	4	397	35	71	34	1003	735	654	12	6	0	0	2951
815-815	4	388	38	62	33	988	726	649	12	6	0	0	2906
830-930	7	383	41	57	39	934	695	646	17	7	0	0	2826
845-945	9	352	45	51	32	927	597	631	16	9	0	0	2669
900-1000	10	345	44	47	23	873	521	578	13	4	0	1	2459

A.M. PEAK HOUR
800-900



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

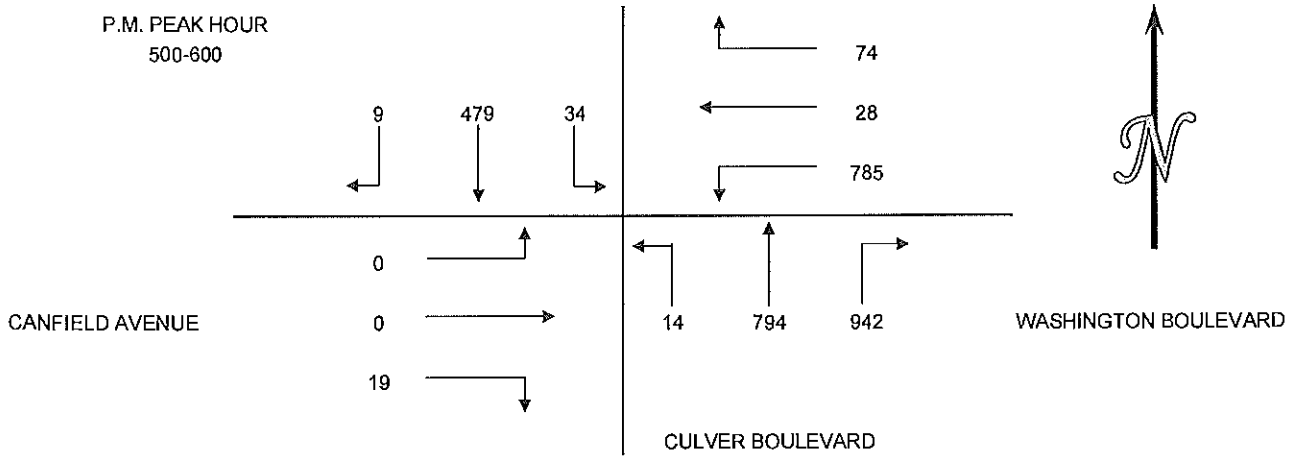
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 11, 2008
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: 17 N/S CULVER BOULEVARD
E/W WASHINGTON BOULEVARD / CANFIELD AVENUE

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-315	10	99	19	19	7	170	162	143	4	3	0	0	636
315-330	3	101	9	20	8	160	181	179	7	1	0	0	669
330-345	3	113	10	16	7	153	207	158	2	3	0	0	672
345-400	1	109	9	13	7	147	228	173	1	2	0	0	690
400-415	4	109	7	13	5	150	206	168	3	3	0	0	668
415-430	5	131	12	18	6	186	228	200	6	2	0	0	794
430-445	5	121	9	23	5	170	212	177	3	2	0	0	727
445-500	3	132	9	12	7	199	207	198	4	10	0	0	781
500-515	1	125	4	21	7	180	213	199	4	6	0	0	760
515-530	4	120	12	13	8	195	242	178	3	2	0	0	777
530-545	3	128	11	14	5	191	235	212	3	2	0	0	804
545-600	1	106	7	26	8	219	252	205	4	9	0	0	837

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-400	17	422	47	68	29	630	778	653	14	9	0	0	2667
315-415	11	432	35	62	27	610	822	678	13	9	0	0	2699
330-430	13	462	38	60	25	636	869	699	12	10	0	0	2824
345-445	15	470	37	67	23	653	874	718	13	9	0	0	2879
400-500	17	493	37	66	23	705	853	743	16	17	0	0	2970
415-515	14	509	34	74	25	735	860	774	17	20	0	0	3062
430-530	13	498	34	69	27	744	874	752	14	20	0	0	3045
445-545	11	505	36	60	27	765	897	787	14	20	0	0	3122
500-600	9	479	34	74	28	785	942	794	14	19	0	0	3178



*Counts provided by the City of Culver City.

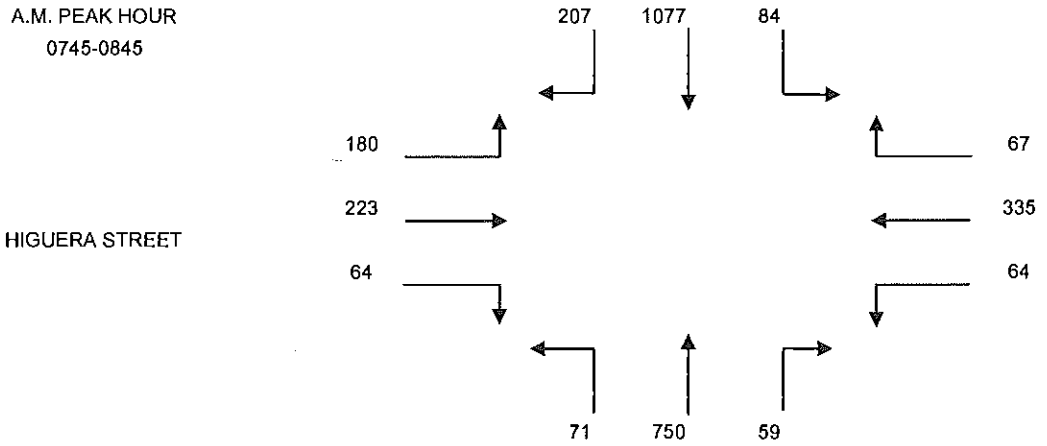
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: CULVER CITY
DATE: WEDNESDAY, MAY 26, 2010
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION: N/S WASHINGTON BOULEVARD
E/W HIGUERA STREET
FILE NUMBER: 5-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	42	170	9	6	40	4	9	70	11	5	27	7
715-730	47	221	13	13	53	10	10	91	11	8	26	10
730-745	50	271	19	15	93	16	13	131	14	6	39	20
745-800	49	299	16	14	88	19	15	175	14	10	59	29
800-815	59	256	20	21	87	16	15	198	16	16	51	40
815-830	57	269	22	16	84	15	14	190	21	19	50	59
830-845	42	253	26	16	76	14	15	187	20	19	63	52
845-900	39	232	21	14	72	10	16	189	17	17	60	40

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	188	961	57	48	274	49	47	467	50	29	151	66	2387
715-815	205	1047	68	63	321	61	53	595	55	40	175	99	2782
730-830	215	1095	77	66	352	66	57	694	65	51	199	148	3085
745-845	207	1077	84	67	335	64	59	750	71	64	223	180	3181
800-900	197	1010	89	67	319	55	60	764	74	71	224	191	3121

A.M. PEAK HOUR
0745-0845



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: CULVER CITY
DATE: WEDNESDAY, MAY 26, 2010
PERIOD: 02:00 PM TO 06:00 PM
INTERSECTION: N/S WASHINGTON BOULEVARD
E/W HIGUERA STREET
FILE NUMBER: 5-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0200-0215	25	135	17	16	28	11	9	147	15	17	39	38
0215-0230	25	152	23	13	30	13	13	155	13	19	45	30
0230-0245	30	160	21	16	33	15	12	143	21	24	42	35
0245-0300	35	153	19	18	35	12	15	161	19	18	33	33
0300-0315	34	169	18	22	37	13	12	156	20	25	49	41
0315-0330	34	189	14	14	34	17	11	196	24	26	52	40
0330-0345	36	169	21	13	42	12	11	182	18	31	42	43
0345-0400	31	169	15	15	42	13	11	191	20	20	44	54
0400-0415	29	166	16	13	41	14	10	170	21	25	54	55
0415-0430	33	153	15	17	39	11	15	199	20	17	55	59
0430-0445	28	186	14	18	39	11	20	204	25	21	51	36
0445-0500	31	194	15	19	41	11	21	203	20	36	55	43
0500-0515	33	180	19	17	42	15	19	211	25	33	51	51
0515-0530	36	177	17	19	39	12	24	226	31	37	46	39
0530-0545	31	165	17	20	46	12	23	231	32	39	50	42
0545-0600	34	190	19	25	38	17	21	219	30	39	51	42

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0200-0300	115	600	80	63	126	51	49	606	68	78	159	136	2131
0215-0315	124	634	81	69	135	53	52	615	73	86	169	139	2230
0230-0330	133	671	72	70	139	57	50	656	84	93	176	149	2350
0245-0345	139	680	72	67	148	54	49	695	81	100	176	157	2418
0300-0400	135	696	68	64	155	55	45	725	82	102	187	178	2492
0315-0415	130	693	66	55	159	56	43	739	83	102	192	192	2510
0330-0430	129	657	67	58	164	50	47	742	79	93	195	211	2492
0345-0445	121	674	60	63	161	49	56	764	86	83	204	204	2525
0400-0500	121	699	60	67	160	47	66	776	86	99	215	193	2589
0415-0515	125	713	63	71	161	48	75	817	90	107	212	189	2671
0430-0530	128	737	65	73	161	49	84	844	101	127	203	169	2741
0445-0545	131	716	68	75	168	50	87	871	108	145	202	175	2796
0500-0600	134	712	72	81	165	56	87	887	118	148	198	174	2832

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

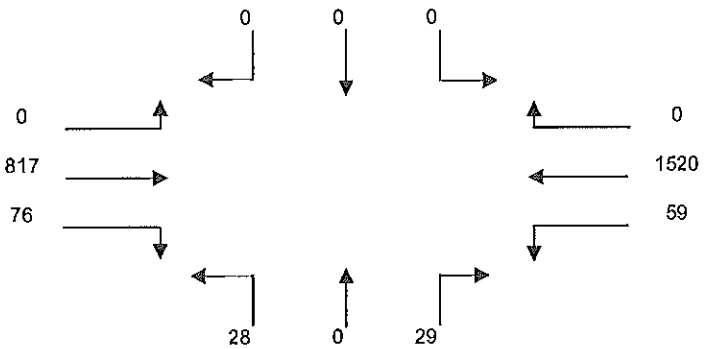
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON - NATIONAL EMC / CULVER CITY
DATE: TUESDAY, OCTOBER 07, 2008
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S LANDMARK STREET
E/W WASHINGTON BOULEVARD
FILE NUMBER: 19-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	0	0	0	0	243	11	4	0	1	5	62	0
0715-0730	0	0	0	0	307	17	7	0	2	5	100	0
0730-0745	0	0	0	0	300	22	7	0	5	8	125	0
0745-0800	0	0	0	0	330	14	3	0	4	11	146	0
0800-0815	0	0	0	0	420	14	4	0	5	17	182	0
0815-0830	0	0	0	0	357	14	7	0	7	22	215	0
0830-0845	0	0	0	0	358	19	12	0	11	21	200	0
0845-0900	0	0	0	0	385	12	6	0	5	16	220	0
0900-0915	0	0	0	0	344	10	7	0	6	12	160	0
0915-0930	0	0	0	0	266	10	4	0	7	10	185	0
0930-0945	0	0	0	0	350	7	5	0	4	10	151	0
0940-1000	0	0	0	0	300	6	4	0	7	8	135	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	0	0	0	0	1180	64	21	0	12	29	433	0	1739
0715-0815	0	0	0	0	1357	67	21	0	16	41	553	0	2055
0730-0830	0	0	0	0	1407	64	21	0	21	58	668	0	2239
0745-0845	0	0	0	0	1465	61	26	0	27	71	743	0	2393
0800-0900	0	0	0	0	1520	59	29	0	28	76	817	0	2529
0815-0915	0	0	0	0	1444	55	32	0	29	71	795	0	2426
0830-0930	0	0	0	0	1353	51	29	0	29	59	765	0	2286
0845-0945	0	0	0	0	1345	39	22	0	22	48	716	0	2192
0900-1000	0	0	0	0	1260	33	20	0	24	40	631	0	2008

A.M. PEAK HOUR
0800-0900



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: CA11_5081_011 **Day:** THURSDAY

NS STREET: Landmark St DATE: 3/24/2011 LOCATION: City of Culver City

EW STREET: Washington Blvd DAY: THURSDAY PROJECT#: 11-5081-011

PM

NS/EW Streets:	Landmark St			Landmark St			Washington Blvd			Washington Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	0	1	0	0	0	0	2	0	1	2	0	
4:00 PM	20		26					236	15	5	182		484
4:15 PM	7		6					269	3	5	180		470
4:30 PM	19		14					260	4	5	172		474
4:45 PM	8		9					255	3	1	181		457
5:00 PM	11		13					293	2	2	207		528
5:15 PM	7		10					315	0	0	227		559
5:30 PM	4		12					335	2	1	269		623
5:45 PM	8		6					355	2	0	353		724
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	84	0	96	0	0	0	0	2318	31	19	1771	0	4319
APPROACH %'s :	46.67%	0.00%	53.33%	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	98.68%	1.32%	1.06%	98.94%	0.00%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	30	0	41	0	0	0	0	1298	6	3	1056	0	2434
PEAK HR FACTOR :		0.740			0.000			0.913			0.750		0.840

CONTROL : Signalized

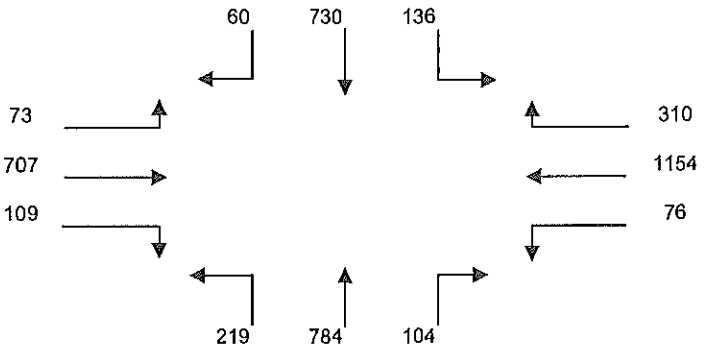
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON / NATIONAL EMC
DATE: THURSDAY, APRIL 29, 2010
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S NATIONAL BOULEVARD
E/W WASHINGTON BOULEVARD
FILE NUMBER: 20-AM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0700-0715	5	75	10	76	233	9	9	190	55	10	99	9
0715-0730	10	80	13	101	250	9	11	201	62	11	100	10
0730-0745	9	134	27	85	296	13	13	227	50	10	121	11
0745-0800	13	154	30	72	302	15	27	212	53	19	141	12
0800-0815	14	204	30	83	308	20	22	192	57	27	191	19
0815-0830	17	189	35	85	271	23	31	194	60	31	202	19
0830-0845	16	183	41	70	273	18	24	186	49	32	173	23
0845-0900	14	173	33	67	245	22	22	173	43	26	162	17
0900-0915	14	173	32	69	271	28	21	180	42	27	123	16
0915-0930	15	191	25	54	251	23	15	199	39	25	125	17
0930-0945	13	188	23	53	251	21	19	201	33	23	105	18
0945-1000	10	166	22	51	244	22	20	198	31	17	101	14

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0700-0800	37	443	80	334	1081	46	60	830	220	50	461	42	3684
0715-0815	46	572	100	341	1156	57	73	832	222	67	553	52	4071
0730-0830	53	681	122	325	1177	71	93	825	220	87	655	61	4370
0745-0845	60	730	136	310	1154	76	104	784	219	109	707	73	4462
0800-0900	61	749	139	305	1097	83	99	745	209	116	728	78	4409
0815-0915	61	718	141	291	1060	91	98	733	194	116	660	75	4238
0830-0930	59	720	131	260	1040	91	82	738	173	110	583	73	4060
0845-0945	56	725	113	243	1018	94	77	753	157	101	515	68	3920
0900-1000	52	718	102	227	1017	94	75	778	145	92	454	65	3819

A.M. PEAK HOUR
0745-0845



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

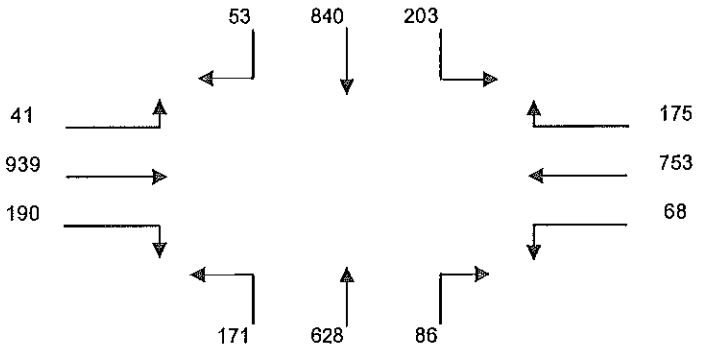
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON / NATIONAL EMC
DATE: THURSDAY, APRIL 29, 2010
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION N/S NATIONAL BOULEVARD
E/W WASHINGTON BOULEVARD
FILE NUMBER: 20-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	11	181	41	52	139	14	10	131	46	40	130	17
0315-0330	10	193	63	42	141	17	19	140	54	50	181	13
0330-0345	10	171	62	59	155	12	22	142	31	57	180	14
0345-0400	14	202	58	49	140	13	15	120	38	35	173	11
0400-0415	11	186	41	41	142	18	17	133	44	51	194	9
0415-0430	9	188	65	58	159	21	14	145	39	38	208	9
0430-0445	9	195	53	36	183	16	18	153	35	46	209	11
0445-0500	10	192	53	36	201	14	13	158	43	30	180	11
0500-0515	16	197	50	39	194	13	20	147	31	50	222	8
0515-0530	14	206	47	37	181	18	25	130	41	43	220	10
0530-0545	10	223	56	56	206	21	25	168	49	54	261	14
0545-0600	13	214	50	43	172	16	16	183	50	43	236	9

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0400	45	747	224	202	575	56	66	533	169	182	664	55	3518
0315-0415	45	752	224	191	578	60	73	535	167	193	728	47	3593
0330-0430	44	747	226	207	596	64	68	540	152	181	755	43	3623
0345-0445	43	771	217	184	624	68	64	551	156	170	784	40	3672
0400-0500	39	761	212	171	685	69	62	589	161	165	791	40	3745
0415-0515	44	772	221	169	737	64	65	603	148	164	819	39	3845
0430-0530	49	790	203	148	759	61	76	588	150	169	831	40	3864
0445-0545	50	818	206	168	782	66	83	603	164	177	883	43	4043
0500-0600	53	840	203	175	753	68	86	628	171	190	939	41	4147

P.M. PEAK HOUR
0500-0600



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

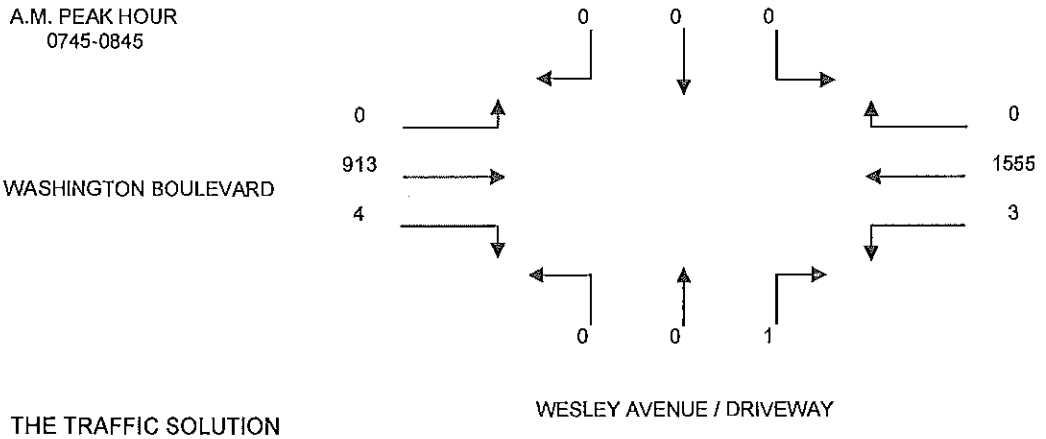
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON / NATIONAL EMC
DATE: THURSDAY, APRIL 29, 2010
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S WESLEY AVENUE / DRIVEWAY
E/W WASHINGTON BOULEVARD
FILE NUMBER: 21-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	0	0	0	0	238	1	0	0	0	3	81	0
0715-0730	0	0	0	0	384	3	0	0	0	2	144	0
0730-0745	0	0	0	0	441	0	0	0	0	0	175	0
0745-0800	0	0	0	0	421	2	0	0	0	1	179	0
0800-0815	0	0	0	0	333	1	0	0	0	1	220	0
0815-0830	0	0	0	0	392	0	1	0	0	0	266	0
0830-0845	0	0	0	0	409	0	0	0	0	2	248	0
0845-0900	0	0	0	0	355	4	1	0	1	1	200	0
0900-0915	0	0	0	0	311	2	1	0	1	3	135	0
0915-0930	0	0	0	0	321	0	1	0	2	3	158	0
0930-0945	0	0	0	0	377	2	1	0	0	3	148	0
0945-1000	0	0	0	0	329	1	0	0	1	5	122	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	0	0	0	0	1484	6	0	0	0	6	579	0	2075
0715-0815	0	0	0	0	1579	6	0	0	0	4	718	0	2307
0730-0830	0	0	0	0	1587	3	1	0	0	2	840	0	2433
0745-0845	0	0	0	0	1555	3	1	0	0	4	913	0	2476
0800-0900	0	0	0	0	1489	5	2	0	1	4	934	0	2435
0815-0915	0	0	0	0	1467	6	3	0	2	6	849	0	2333
0830-0930	0	0	0	0	1396	6	3	0	4	9	741	0	2159
0845-0945	0	0	0	0	1364	8	4	0	4	10	641	0	2031
0900-1000	0	0	0	0	1338	5	3	0	4	14	563	0	1927

A.M. PEAK HOUR
0745-0845



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

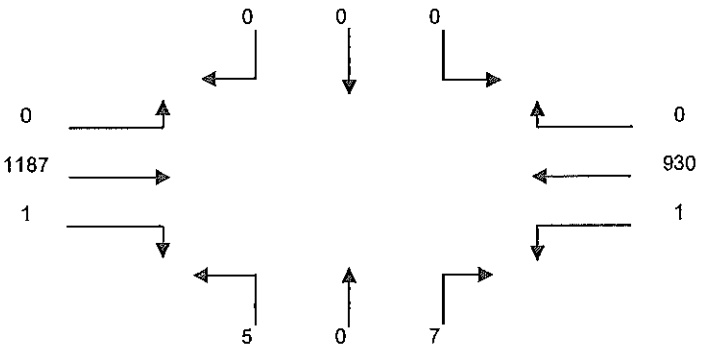
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON / NATIONAL EMC
DATE: THURSDAY, APRIL 29, 2010
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION N/S WESLEY STREET / DRIVEWAY
E/W WASHINGTON BOULEVARD
FILE NUMBER: 21-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	0	0	0	0	222	4	4	0	3	2	212	0
0315-0330	0	0	0	0	195	2	3	0	2	0	238	0
0330-0345	0	0	0	0	170	0	5	0	5	0	241	0
0345-0400	0	0	0	0	175	0	3	0	5	1	204	0
0400-0415	0	0	0	0	199	0	4	0	3	2	251	0
0415-0430	0	0	0	0	228	1	4	0	6	1	265	0
0430-0445	0	0	0	0	207	0	2	0	3	2	255	0
0445-0500	0	0	0	0	236	2	2	0	3	2	235	0
0500-0515	0	0	0	0	240	0	4	0	2	0	295	0
0515-0530	0	0	0	0	244	0	3	0	3	0	327	0
0530-0545	0	0	0	0	230	1	0	0	0	0	279	0
0545-0600	0	0	0	0	216	0	0	0	0	1	286	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0400	0	0	0	0	762	6	15	0	15	3	895	0	1696
0315-0415	0	0	0	0	739	2	15	0	15	3	934	0	1708
0330-0430	0	0	0	0	772	1	16	0	19	4	961	0	1773
0345-0445	0	0	0	0	809	1	13	0	17	6	975	0	1821
0400-0500	0	0	0	0	870	3	12	0	15	7	1006	0	1913
0415-0515	0	0	0	0	911	3	12	0	14	5	1050	0	1995
0430-0530	0	0	0	0	927	2	11	0	11	4	1112	0	2067
0445-0545	0	0	0	0	950	3	9	0	8	2	1136	0	2108
0500-0600	0	0	0	0	930	1	7	0	5	1	1187	0	2131

P.M. PEAK HOUR
0500-0600



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

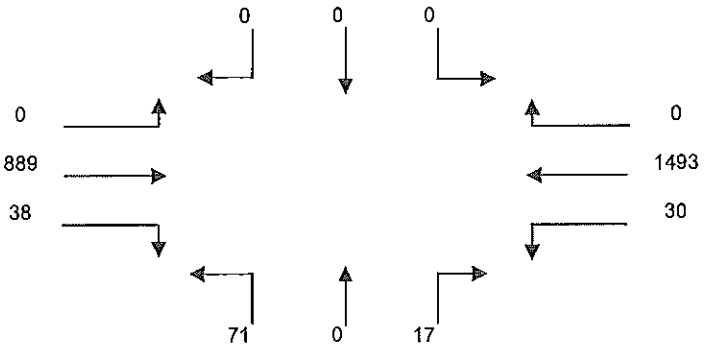
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON / NATIONAL EMC
DATE: THURSDAY, APRIL 29, 2010
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S HELMS AVENUE
E/W WASHINGTON BOULEVARD
FILE NUMBER: 22-AM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0700-0715	0	0	0	0	270	2	2	0	11	2	115	0
0715-0730	0	0	0	0	362	5	3	0	13	1	129	0
0730-0745	0	0	0	0	365	4	4	0	19	2	133	0
0745-0800	0	0	0	0	423	6	2	0	16	4	175	0
0800-0815	0	0	0	0	357	11	4	0	19	7	257	0
0815-0830	0	0	0	0	374	5	5	0	22	16	257	0
0830-0845	0	0	0	0	339	8	6	0	14	11	200	0
0845-0900	0	0	0	0	354	6	5	0	8	7	169	0
0900-0915	0	0	0	0	348	9	5	0	10	6	169	0
0915-0930	0	0	0	0	312	6	3	0	8	4	166	0
0930-0945	0	0	0	0	350	3	6	0	14	6	125	0
0945-1000	0	0	0	0	324	5	5	0	8	2	96	0

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0700-0800	0	0	0	0	1420	17	11	0	59	9	552	0	2068
0715-0815	0	0	0	0	1507	26	13	0	67	14	694	0	2321
0730-0830	0	0	0	0	1519	26	15	0	76	29	822	0	2487
0745-0845	0	0	0	0	1493	30	17	0	71	38	889	0	2538
0800-0900	0	0	0	0	1424	30	20	0	63	41	883	0	2461
0815-0915	0	0	0	0	1415	28	21	0	54	40	795	0	2353
0830-0930	0	0	0	0	1353	29	19	0	40	28	704	0	2173
0845-0945	0	0	0	0	1364	24	19	0	40	23	629	0	2099
0900-1000	0	0	0	0	1334	23	19	0	40	18	556	0	1990

A.M. PEAK HOUR
0745-0845



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

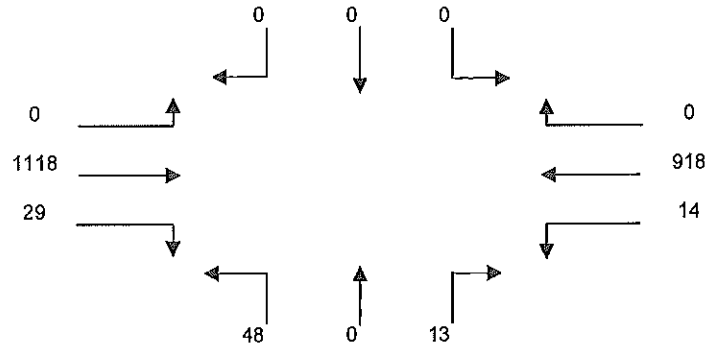
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON / NATIONAL EMC
DATE: THURSDAY, APRIL 29, 2010
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION N/S HELMS AVENUE
E/W WASHINGTON BOULEVARD
FILE NUMBER: 22-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	0	0	0	0	162	5	3	0	19	2	192	0
0315-0330	0	0	0	0	199	3	4	0	19	6	248	0
0330-0345	0	0	0	0	207	7	3	0	15	4	262	0
0345-0400	0	0	0	0	177	5	6	0	15	2	246	0
0400-0415	0	0	0	0	166	3	4	0	10	6	228	0
0415-0430	0	0	0	0	204	2	4	0	14	9	281	0
0430-0445	0	0	0	0	237	3	2	0	19	6	274	0
0445-0500	0	0	0	0	261	6	3	0	10	9	250	0
0500-0515	0	0	0	0	213	3	2	0	8	11	255	0
0515-0530	0	0	0	0	203	5	4	0	14	5	276	0
0530-0545	0	0	0	0	258	3	4	0	13	6	292	0
0545-0600	0	0	0	0	244	3	3	0	13	7	295	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0400	0	0	0	0	745	20	16	0	68	14	948	0	1811
0315-0415	0	0	0	0	749	18	17	0	59	18	984	0	1845
0330-0430	0	0	0	0	754	17	17	0	54	21	1017	0	1880
0345-0445	0	0	0	0	784	13	16	0	58	23	1029	0	1923
0400-0500	0	0	0	0	868	14	13	0	53	30	1033	0	2011
0415-0515	0	0	0	0	915	14	11	0	51	35	1060	0	2086
0430-0530	0	0	0	0	914	17	11	0	51	31	1055	0	2079
0445-0545	0	0	0	0	935	17	13	0	45	31	1073	0	2114
0500-0600	0	0	0	0	918	14	13	0	48	29	1118	0	2140

P.M. PEAK HOUR
0500-0600



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

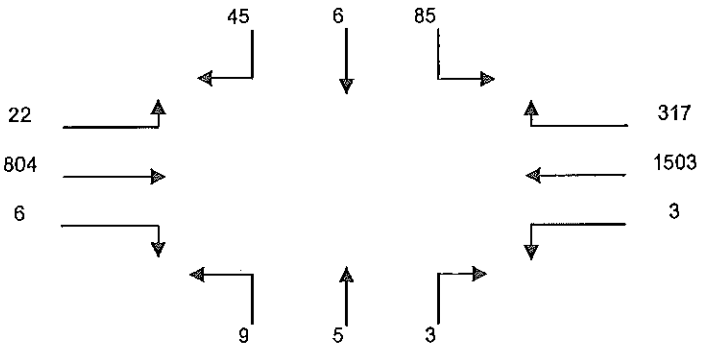
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON / NATIONAL EMC
DATE: TUESDAY, MAY 04, 2010
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S CATTARAUGUS AVENUE
E/W WASHINGTON BOULEVARD
FILE NUMBER: 23-AM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0700-0715	5	0	7	35	254	0	1	0	1	1	82	4
0715-0730	6	2	10	65	369	3	1	0	1	0	122	5
0730-0745	7	1	15	95	407	1	0	1	2	1	174	3
0745-0800	10	1	16	78	389	1	1	2	3	1	190	4
0800-0815	17	1	25	69	341	1	1	1	2	2	212	6
0815-0830	11	3	29	75	366	0	1	1	2	2	228	9
0830-0845	7	1	15	73	367	0	1	1	2	0	227	9
0845-0900	6	1	7	55	322	1	2	0	4	0	182	7
0900-0915	5	1	3	35	345	2	2	1	4	4	150	3
0915-0930	8	0	7	30	300	1	2	0	4	3	150	2
0930-0945	10	0	8	21	341	1	2	0	2	0	124	3
0945-1000	12	0	5	21	302	0	2	1	0	0	115	3

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0700-0800	28	4	48	273	1419	5	3	3	7	3	568	16	2377
0715-0815	40	5	66	307	1506	6	3	4	8	4	698	18	2665
0730-0830	45	6	85	317	1503	3	3	5	9	6	804	22	2808
0745-0845	45	6	85	295	1463	2	4	5	9	5	857	28	2804
0800-0900	41	6	76	272	1396	2	5	3	10	4	849	31	2695
0815-0915	29	6	54	238	1400	3	6	3	12	6	787	28	2572
0830-0930	26	3	32	193	1334	4	7	2	14	7	709	21	2352
0845-0945	29	2	25	141	1308	5	8	1	14	7	606	15	2161
0900-1000	35	1	23	107	1288	4	8	2	10	7	539	11	2035

A.M. PEAK HOUR
0730-0830



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

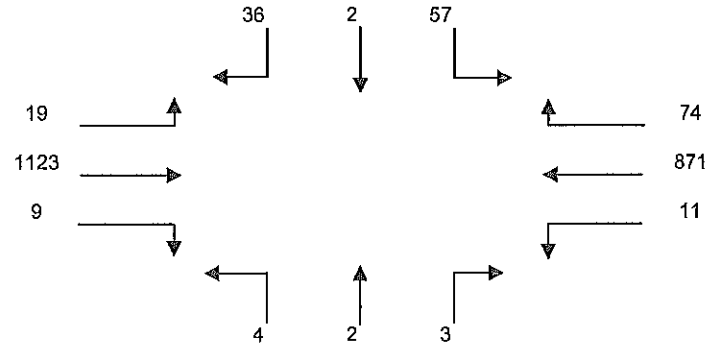
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON / NATIONAL EMC
DATE: TUESDAY, MAY 04, 2010
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION N/S CATTARAUGUS AVENUE
E/W WASHINGTON BOULEVARD
FILE NUMBER: 23-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	8	0	18	25	189	0	0	0	1	2	193	8
0315-0330	6	2	19	21	170	0	1	2	0	2	224	4
0330-0345	5	0	19	17	173	3	0	1	2	3	221	4
0345-0400	8	0	14	20	181	2	1	0	1	2	229	5
0400-0415	6	0	15	16	175	3	2	0	0	3	219	2
0415-0430	11	1	19	20	183	1	1	1	0	5	250	4
0430-0445	10	1	20	22	208	2	3	1	1	3	248	2
0445-0500	9	1	19	17	211	3	3	0	1	1	263	2
0500-0515	10	0	15	21	220	2	0	1	1	1	264	5
0515-0530	12	0	13	21	209	3	0	0	0	2	304	4
0530-0545	7	2	17	19	219	2	3	1	2	3	267	4
0545-0600	7	0	12	13	223	4	0	0	1	3	288	6

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0400	27	2	70	83	713	5	2	3	4	9	867	21	1806
0315-0415	25	2	67	74	699	8	4	3	3	10	893	15	1803
0330-0430	30	1	67	73	712	9	4	2	3	13	919	15	1848
0345-0445	35	2	68	78	747	8	7	2	2	13	946	13	1921
0400-0500	36	3	73	75	777	9	9	2	2	12	980	10	1988
0415-0515	40	3	73	80	822	8	7	3	3	10	1025	13	2087
0430-0530	41	2	67	81	848	10	6	2	3	7	1079	13	2159
0445-0545	38	3	64	78	859	10	6	2	4	7	1098	15	2184
0500-0600	36	2	57	74	871	11	3	2	4	9	1123	19	2211

P.M. PEAK HOUR
0500-0600



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

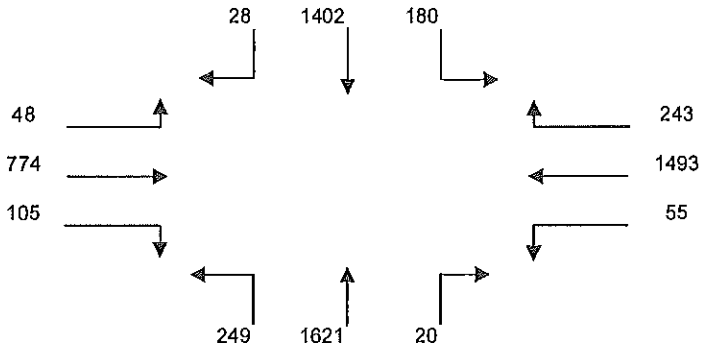
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: HELMS AVENUE CLOSURE PROJECT
DATE: TUESDAY, MAY 04, 2010
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION N/S LA CIENEGA BOULEVARD
E/W WASHINGTON BOULEVARD
FILE NUMBER: 24-AM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0700-0715	4	215	28	37	301	9	5	355	39	11	87	7
0715-0730	4	245	33	57	325	10	5	365	63	13	127	8
0730-0745	6	291	36	68	366	11	3	404	70	19	139	10
0745-0800	10	328	39	75	425	13	5	435	67	20	178	11
0800-0815	7	402	48	50	422	17	6	385	50	21	203	9
0815-0830	6	351	49	60	345	15	4	390	65	36	202	13
0830-0845	5	321	44	58	301	10	5	411	67	28	191	15
0845-0900	5	288	56	55	345	9	7	400	52	20	161	16
0900-0915	10	250	44	30	374	10	12	331	47	23	142	15
0915-0930	3	271	46	41	260	13	6	311	50	26	121	10
0930-0945	3	289	39	33	261	12	5	272	34	21	99	9
0945-1000	7	288	30	30	287	9	3	302	36	19	98	7

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0700-0800	24	1079	136	237	1417	43	18	1559	239	63	531	36	5382
0715-0815	27	1266	156	250	1538	51	19	1589	250	73	647	38	5904
0730-0830	29	1372	172	253	1558	56	18	1614	252	96	722	43	6185
0745-0845	28	1402	180	243	1493	55	20	1621	249	105	774	48	6218
0800-0900	23	1362	197	223	1413	51	22	1586	234	105	757	53	6026
0815-0915	26	1210	193	203	1365	44	28	1532	231	107	696	59	5694
0830-0930	23	1130	190	184	1280	42	30	1453	216	97	615	56	5316
0845-0945	21	1098	185	159	1240	44	30	1314	183	90	523	50	4937
0900-1000	23	1098	159	134	1182	44	26	1216	167	89	460	41	4639

A.M. PEAK HOUR
0745-0845



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

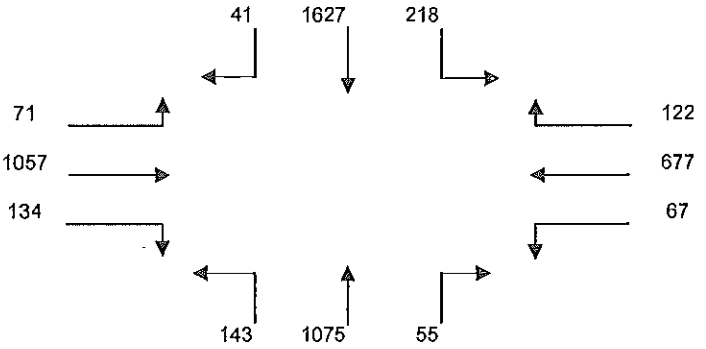
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: WASHINGTON / NATIONAL EMC
DATE: TUESDAY, MAY 04, 2010
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION N/S LA CIENEGA BOULEVARD
E/W WASHINGTON BOULEVARD
FILE NUMBER: 24-PM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0300-0315	10	345	45	13	137	12	10	264	28	29	199	13
0315-0330	11	350	50	15	128	12	9	250	30	30	222	11
0330-0345	9	342	51	20	141	15	13	259	32	37	227	11
0345-0400	11	361	44	16	132	17	11	265	37	34	230	9
0400-0415	13	376	53	19	141	18	10	273	33	31	225	12
0415-0430	10	401	58	23	137	13	8	268	30	38	214	15
0430-0445	9	423	61	26	163	13	13	274	32	41	238	18
0445-0500	10	411	72	29	160	11	15	256	26	42	234	20
0500-0515	8	408	65	34	173	19	14	261	31	34	249	21
0515-0530	12	430	59	28	164	19	16	264	40	30	257	17
0530-0545	11	388	51	30	169	15	12	270	41	37	268	18
0545-0600	10	401	43	30	171	14	13	280	31	33	283	15

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0300-0400	41	1398	190	64	538	56	43	1038	127	130	878	44	4547
0315-0415	44	1429	198	70	542	62	43	1047	132	132	904	43	4646
0330-0430	43	1480	206	78	551	63	42	1065	132	140	896	47	4743
0345-0445	43	1561	216	84	573	61	42	1080	132	144	907	54	4897
0400-0500	42	1611	244	97	601	55	46	1071	121	152	911	65	5016
0415-0515	37	1643	256	112	633	56	50	1059	119	155	935	74	5129
0430-0530	39	1672	257	117	660	62	58	1055	129	147	978	76	5250
0445-0545	41	1637	247	121	666	64	57	1051	138	143	1008	76	5249
0500-0600	41	1627	218	122	677	67	55	1075	143	134	1057	71	5287

P.M. PEAK HOUR
0500-0600



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

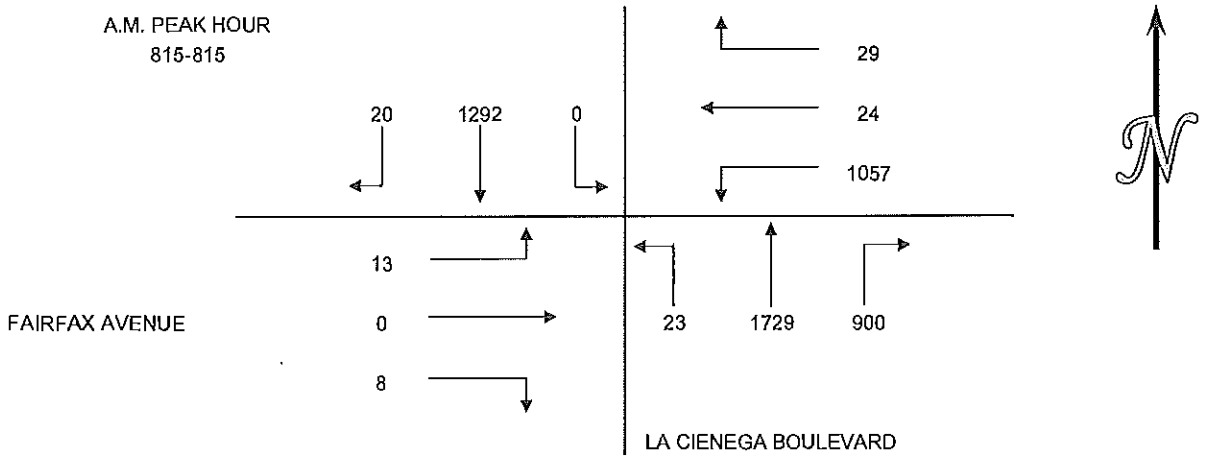
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 10, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: 25 N/S LA CIENEGA BOULEVARD
E/W FAIRFAX AVENUE

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	4	238	0	1	6	236	272	422	2	1	0	1	1183
715-730	5	286	0	1	3	226	298	446	3	0	0	2	1270
730-745	2	324	0	5	6	259	228	404	4	1	0	0	1233
745-800	5	278	0	4	8	271	253	419	6	3	0	3	1250
800-815	7	317	0	2	8	279	209	413	8	1	0	2	1246
815-830	6	340	0	0	7	242	219	446	8	3	0	1	1272
830-845	5	333	0	2	4	264	201	423	10	1	0	4	1247
845-900	6	297	0	15	9	276	251	436	2	3	0	3	1298
900-915	3	322	0	12	4	275	229	424	3	1	0	5	1278
915-930	5	308	0	0	4	248	224	380	5	0	0	1	1175
930-945	3	278	0	1	6	235	210	379	4	3	0	3	1122
945-1000	4	315	0	4	3	228	191	378	2	0	0	1	1126

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	16	1126	0	11	23	992	1051	1691	15	5	0	6	4936
715-815	19	1205	0	12	25	1035	988	1682	21	5	0	7	4999
730-830	20	1259	0	11	29	1051	909	1682	26	8	0	6	5001
745-845	23	1268	0	8	27	1056	882	1701	32	8	0	10	5015
800-900	24	1287	0	19	28	1061	880	1718	28	8	0	10	5063
815-815	20	1292	0	29	24	1057	900	1729	23	8	0	13	5095
830-930	19	1260	0	29	21	1063	905	1663	20	5	0	13	4998
845-945	17	1205	0	28	23	1034	914	1619	14	7	0	12	4873
900-1000	15	1223	0	17	17	986	854	1561	14	4	0	10	4701



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

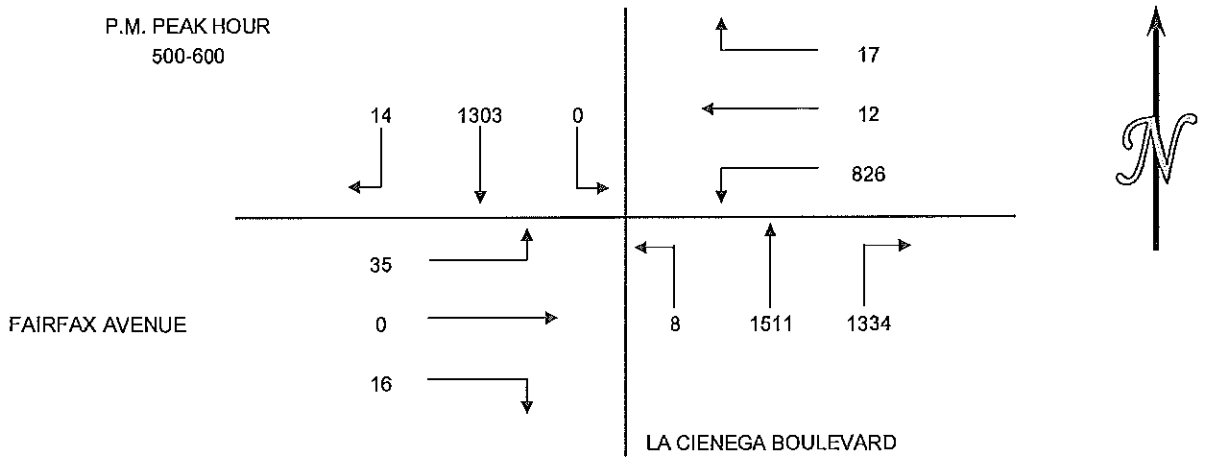
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 10, 2008
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: 25 N/S LA CIENEGA BOULEVARD
E/W FAIRFAX AVENUE

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-315	2	278	0	0	2	281	246	289	3	4	0	7	1112
315-330	1	296	0	2	3	271	264	323	4	5	0	8	1177
330-345	2	284	0	5	1	204	276	338	1	2	0	12	1125
345-400	3	318	0	4	3	211	389	351	3	4	0	6	1292
400-415	1	337	0	2	4	229	362	356	2	6	0	8	1307
415-430	4	385	0	0	2	202	320	347	2	2	0	22	1286
430-445	2	328	0	2	1	174	316	308	6	4	0	15	1156
445-500	5	312	0	15	2	201	285	338	4	4	0	3	1169
500-515	7	342	0	12	4	235	312	352	1	4	0	15	1284
515-530	4	338	0	0	3	208	340	381	3	6	0	11	1294
530-545	2	298	0	1	1	185	360	416	0	2	0	5	1270
545-600	1	325	0	4	4	198	322	362	4	4	0	4	1228

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-400	8	1176	0	11	9	967	1175	1301	11	15	0	33	4706
315-415	7	1235	0	13	11	915	1291	1368	10	17	0	34	4901
330-430	10	1324	0	11	10	846	1347	1392	8	14	0	48	5010
345-445	10	1368	0	8	10	816	1387	1362	13	16	0	51	5041
400-500	12	1362	0	19	9	806	1283	1349	14	16	0	48	4918
415-515	18	1367	0	29	9	812	1233	1345	13	14	0	55	4895
430-530	18	1320	0	29	10	818	1253	1379	14	18	0	44	4903
445-545	18	1290	0	28	10	829	1297	1487	8	16	0	34	5017
500-600	14	1303	0	17	12	826	1334	1511	8	16	0	35	5076



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 10, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: 26 N/S WESLEY STREET
E/W NATIONAL BOULEVARD

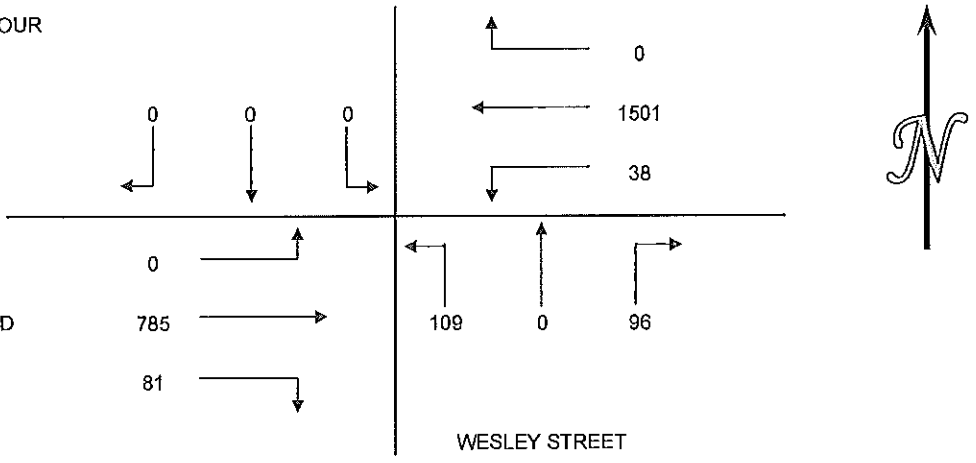
15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	0	0	0	0	383	2	6	0	0	2	108	0	501
715-730	0	0	0	0	419	8	8	0	4	6	133	0	578
730-745	0	0	0	0	420	5	15	0	5	34	177	0	656
745-800	0	0	0	0	353	8	23	0	33	29	182	0	628
800-815	0	0	0	0	385	7	34	0	46	12	216	0	700
815-830	0	0	0	0	343	18	24	0	25	6	210	0	626
830-845	0	0	0	0	311	2	10	0	10	6	196	0	535
845-900	0	0	0	0	271	10	20	0	2	1	184	0	488
900-915	0	0	0	0	266	10	15	0	2	2	159	0	454
915-930	0	0	0	0	239	3	8	0	2	2	150	0	404
930-945	0	0	0	0	196	11	8	0	0	1	140	0	356
945-1000	0	0	0	0	174	6	9	0	1	2	145	0	337

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	0	0	0	0	1575	23	52	0	42	71	600	0	2363
715-815	0	0	0	0	1577	28	80	0	88	81	708	0	2562
730-830	0	0	0	0	1501	38	96	0	109	81	785	0	2610
745-845	0	0	0	0	1392	35	91	0	114	53	804	0	2489
800-900	0	0	0	0	1310	37	88	0	83	25	806	0	2349
815-815	0	0	0	0	1191	40	69	0	39	15	749	0	2103
830-930	0	0	0	0	1087	25	53	0	16	11	689	0	1881
845-945	0	0	0	0	972	34	51	0	6	6	633	0	1702
900-1000	0	0	0	0	875	30	40	0	5	7	594	0	1551

A.M. PEAK HOUR
730-830



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

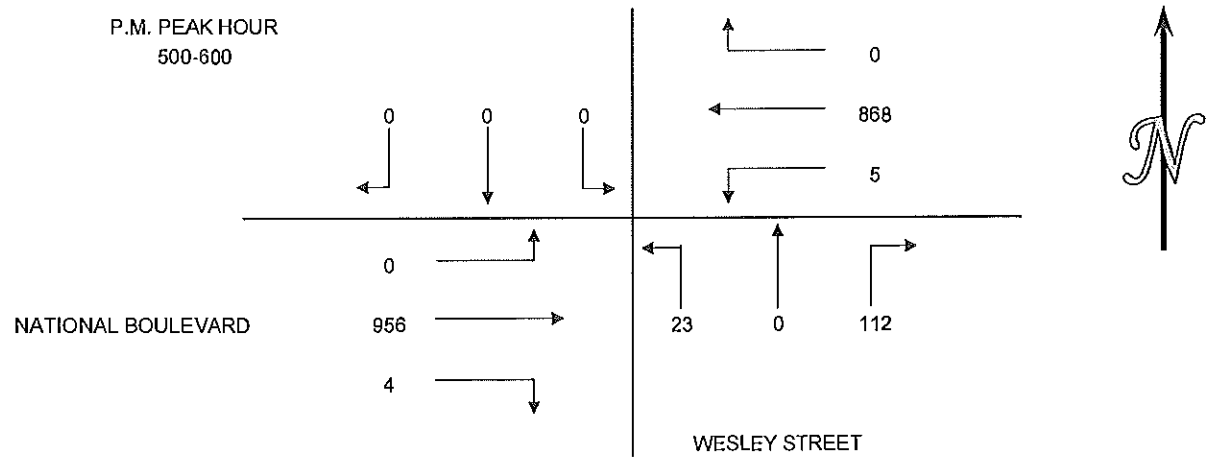
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 10, 2008
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: 26 N/S WESLEY STREET
E/W NATIONAL BOULEVARD

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-315	0	0	0	0	174	2	48	0	20	2	209	0	455
315-330	0	0	0	0	150	0	40	0	16	1	189	0	396
330-345	0	0	0	0	184	3	44	0	14	3	206	0	454
345-400	0	0	0	0	146	4	22	0	9	2	204	0	387
400-415	0	0	0	0	174	0	35	0	11	3	217	0	440
415-430	0	0	0	0	191	0	20	0	4	1	235	0	451
430-445	0	0	0	0	174	4	39	0	11	0	216	0	444
445-500	0	0	0	0	187	0	44	0	10	2	201	0	444
500-515	0	0	0	0	196	1	35	0	5	1	214	0	452
515-530	0	0	0	0	226	1	33	0	4	2	236	0	502
530-545	0	0	0	0	234	1	26	0	8	0	240	0	509
545-600	0	0	0	0	212	2	18	0	6	1	266	0	505

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-400	0	0	0	0	654	9	154	0	59	8	808	0	1692
315-415	0	0	0	0	654	7	141	0	50	9	816	0	1677
330-430	0	0	0	0	695	7	121	0	38	9	862	0	1732
345-445	0	0	0	0	685	8	116	0	35	6	872	0	1722
400-500	0	0	0	0	726	4	138	0	36	6	869	0	1779
415-515	0	0	0	0	748	5	138	0	30	4	866	0	1791
430-530	0	0	0	0	783	6	151	0	30	5	867	0	1842
445-545	0	0	0	0	843	3	138	0	27	5	891	0	1907
500-600	0	0	0	0	868	5	112	0	23	4	956	0	1968



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

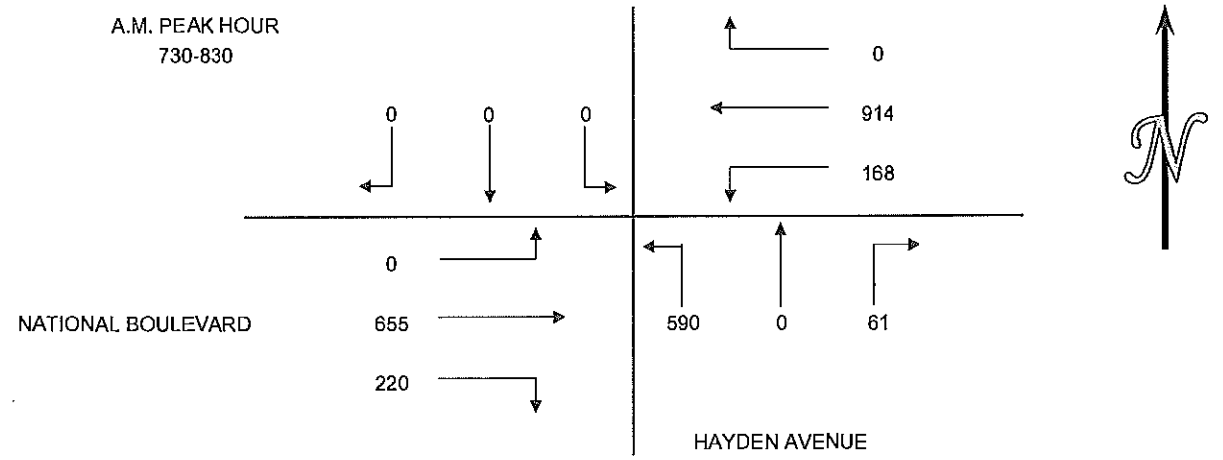
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 10, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: 27 N/S HAYDEN AVENUE
E/W NATIONAL BOULEVARD

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	0	0	0	0	254	31	6	0	113	21	99	0	524
715-730	0	0	0	0	264	26	2	0	144	33	110	0	579
730-745	0	0	0	0	284	31	11	0	147	42	143	0	658
745-800	0	0	0	0	233	50	18	0	141	62	181	0	685
800-815	0	0	0	0	200	35	20	0	146	57	145	0	603
815-830	0	0	0	0	197	52	12	0	156	59	186	0	662
830-845	0	0	0	0	166	52	13	0	148	67	180	0	626
845-900	0	0	0	0	176	49	11	0	142	77	148	0	603
900-915	0	0	0	0	140	69	12	0	119	66	136	0	542
915-930	0	0	0	0	115	33	9	0	114	59	110	0	440
930-945	0	0	0	0	93	41	9	0	103	41	100	0	387
945-1000	0	0	0	0	89	27	20	0	94	47	90	0	367

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	0	0	0	0	1035	138	37	0	545	158	533	0	2446
715-815	0	0	0	0	981	142	51	0	578	194	579	0	2525
730-830	0	0	0	0	914	168	61	0	590	220	655	0	2608
745-845	0	0	0	0	796	189	63	0	591	245	692	0	2576
800-900	0	0	0	0	739	188	56	0	592	260	659	0	2494
815-815	0	0	0	0	679	222	48	0	565	269	650	0	2433
830-930	0	0	0	0	597	203	45	0	523	269	574	0	2211
845-945	0	0	0	0	524	192	41	0	478	243	494	0	1972
900-1000	0	0	0	0	437	170	50	0	430	213	436	0	1736



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

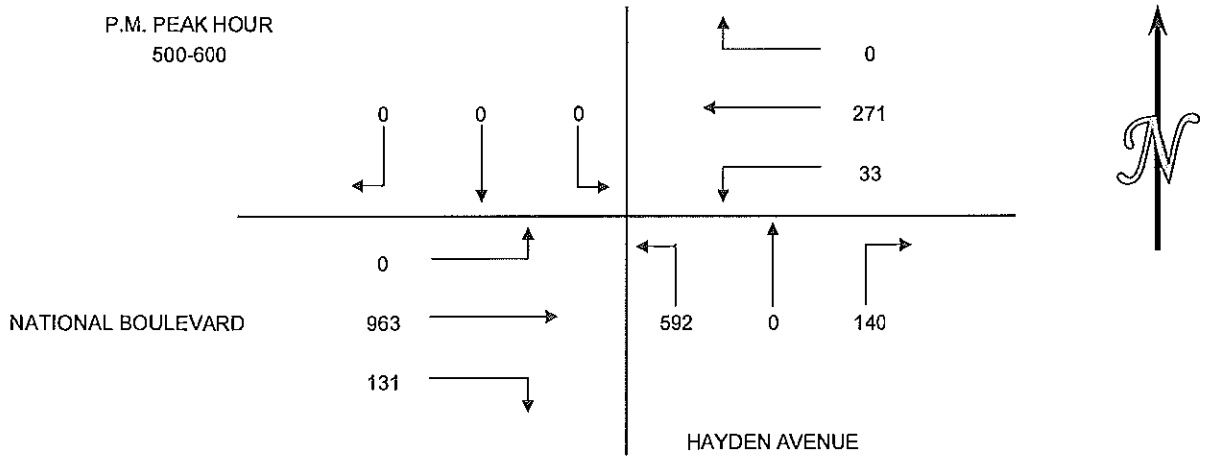
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 10, 2008
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: 27 N/S HAYDEN AVENUE
E/W NATIONAL BOULEVARD

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-315	0	0	0	0	59	6	26	0	84	34	157	0	366
315-330	0	0	0	0	56	17	23	0	112	30	194	0	432
330-345	0	0	0	0	78	11	17	0	103	31	206	0	446
345-400	0	0	0	0	65	10	24	0	90	54	241	0	484
400-415	0	0	0	0	53	13	24	0	112	48	205	0	455
415-430	0	0	0	0	69	12	24	0	106	48	243	0	502
430-445	0	0	0	0	66	11	49	0	134	41	251	0	552
445-500	0	0	0	0	80	7	21	0	116	29	196	0	449
500-515	0	0	0	0	77	8	37	0	142	42	245	0	551
515-530	0	0	0	0	55	7	38	0	133	30	264	0	527
530-545	0	0	0	0	78	12	36	0	166	32	232	0	556
545-600	0	0	0	0	61	6	29	0	151	27	222	0	496

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-400	0	0	0	0	258	44	90	0	389	149	798	0	1728
315-415	0	0	0	0	252	51	88	0	417	163	846	0	1817
330-430	0	0	0	0	265	46	89	0	411	181	895	0	1887
345-445	0	0	0	0	253	46	121	0	442	191	940	0	1993
400-500	0	0	0	0	268	43	118	0	468	166	895	0	1958
415-515	0	0	0	0	292	38	131	0	498	160	935	0	2054
430-530	0	0	0	0	278	33	145	0	525	142	956	0	2079
445-545	0	0	0	0	290	34	132	0	557	133	937	0	2083
500-600	0	0	0	0	271	33	140	0	592	131	963	0	2130



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

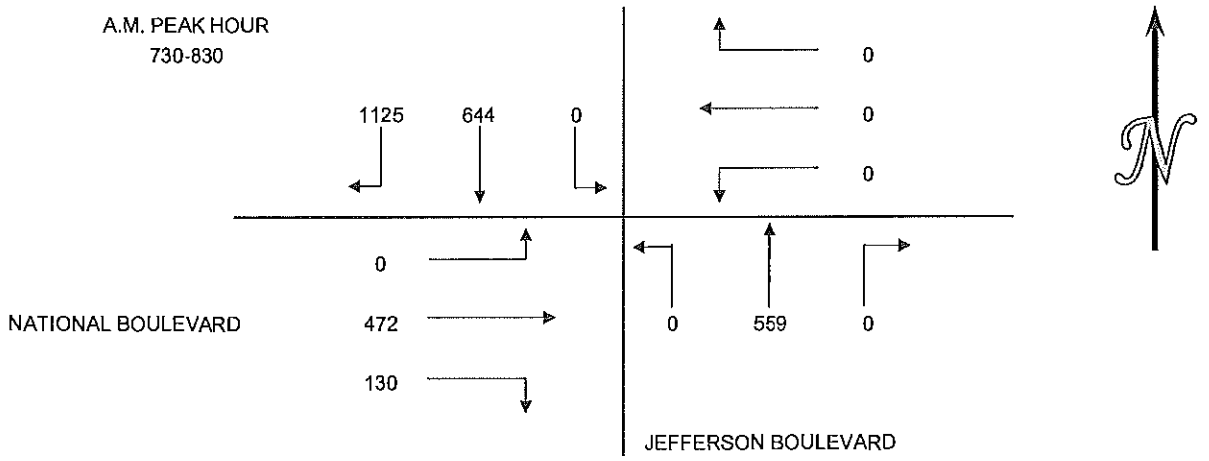
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 10, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: 28 N/S JEFFERSON BOULEVARD
E/W NATIONAL BOULEVARD

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	283	142	0	0	0	0	0	118	0	20	74	0	637
715-730	292	161	0	0	0	0	0	137	0	28	97	0	715
730-745	279	141	0	0	0	0	0	130	0	40	89	0	679
745-800	318	161	0	0	0	0	0	110	0	25	106	0	720
800-815	280	177	0	0	0	0	0	162	0	26	139	0	784
815-830	248	165	0	0	0	0	0	157	0	39	138	0	747
830-845	223	139	0	0	0	0	0	144	0	27	110	0	643
845-900	193	119	0	0	0	0	0	117	0	21	91	0	541
900-915	164	143	0	0	0	0	0	110	0	28	97	0	542
915-930	154	133	0	0	0	0	0	96	0	31	74	0	488
930-945	146	118	0	0	0	0	0	92	0	24	54	0	434
945-1000	134	113	0	0	0	0	0	86	0	18	49	0	400

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	1172	605	0	0	0	0	0	495	0	113	366	0	2751
715-815	1169	640	0	0	0	0	0	539	0	119	431	0	2898
730-830	1125	644	0	0	0	0	0	559	0	130	472	0	2930
745-845	1069	642	0	0	0	0	0	573	0	117	493	0	2894
800-900	944	600	0	0	0	0	0	580	0	113	478	0	2715
815-815	828	566	0	0	0	0	0	528	0	115	436	0	2473
830-930	734	534	0	0	0	0	0	467	0	107	372	0	2214
845-945	657	513	0	0	0	0	0	415	0	104	316	0	2005
900-1000	598	507	0	0	0	0	0	384	0	101	274	0	1864



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

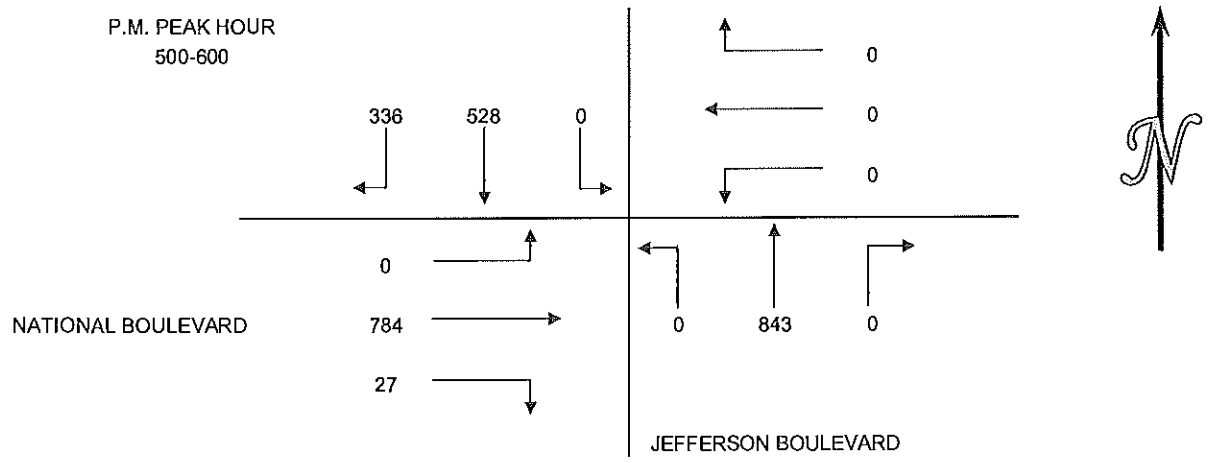
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 10, 2008
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: 28 N/S JEFFERSON BOULEVARD
E/W NATIONAL BOULEVARD

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-315	86	101	0	0	0	0	0	133	0	7	185	0	512
315-330	67	95	0	0	0	0	0	150	0	18	135	0	465
330-345	86	80	0	0	0	0	0	140	0	21	158	0	485
345-400	74	111	0	0	0	0	0	162	0	1	174	0	522
400-415	90	140	0	0	0	0	0	177	0	17	207	0	631
415-430	81	138	0	0	0	0	0	168	0	7	170	0	564
430-445	70	141	0	0	0	0	0	184	0	9	184	0	588
445-500	88	151	0	0	0	0	0	207	0	1	178	0	625
500-515	94	126	0	0	0	0	0	227	0	8	195	0	650
515-530	85	119	0	0	0	0	0	216	0	7	184	0	611
530-545	76	136	0	0	0	0	0	195	0	5	191	0	603
545-600	81	147	0	0	0	0	0	205	0	7	214	0	654

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-400	313	387	0	0	0	0	0	585	0	47	652	0	1984
315-415	317	426	0	0	0	0	0	629	0	57	674	0	2103
330-430	331	469	0	0	0	0	0	647	0	46	709	0	2202
345-445	315	530	0	0	0	0	0	691	0	34	735	0	2305
400-500	329	570	0	0	0	0	0	736	0	34	739	0	2408
415-515	333	556	0	0	0	0	0	786	0	25	727	0	2427
430-530	337	537	0	0	0	0	0	834	0	25	741	0	2474
445-545	343	532	0	0	0	0	0	845	0	21	748	0	2489
500-600	336	528	0	0	0	0	0	843	0	27	784	0	2518



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

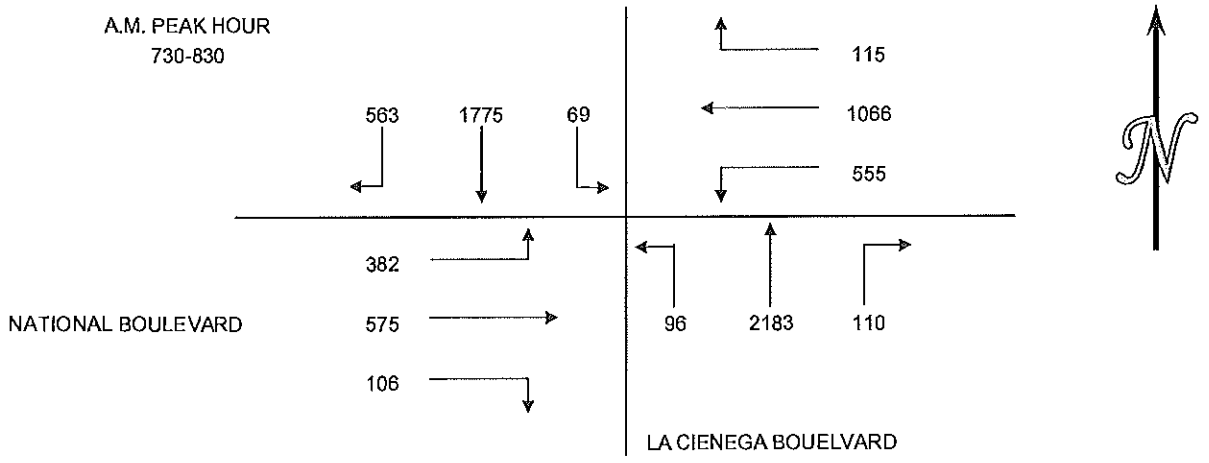
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 10, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: 29 N/S LA CIENEGA BOUELVARD
E/W NATIONAL BOULEVARD

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	141	318	14	28	275	129	30	530	28	21	84	87	1685
715-730	134	350	18	35	298	169	31	512	18	21	92	75	1753
730-745	179	386	23	29	268	152	24	540	31	30	116	92	1870
745-800	147	428	19	28	247	170	31	574	19	28	131	95	1917
800-815	116	453	10	33	292	133	23	549	20	25	163	105	1922
815-830	121	508	17	25	259	100	32	520	26	23	165	90	1886
830-845	121	455	9	17	231	86	36	505	17	29	146	87	1739
845-900	117	443	8	28	219	68	43	557	26	33	138	82	1762
900-915	102	508	8	19	162	58	25	557	28	22	83	76	1648
915-930	83	466	5	15	147	49	38	521	19	18	76	78	1515
930-945	75	491	4	17	137	57	46	473	26	23	61	75	1485
945-1000	60	415	6	23	160	80	32	439	15	20	52	63	1365

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	601	1482	74	120	1088	620	116	2156	96	100	423	349	7225
715-815	576	1617	70	125	1105	624	109	2175	88	104	502	367	7462
730-830	563	1775	69	115	1066	555	110	2183	96	106	575	382	7595
745-845	505	1844	55	103	1029	489	122	2148	82	105	605	377	7464
800-900	475	1859	44	103	1001	387	134	2131	89	110	612	364	7309
815-815	461	1914	42	89	871	312	136	2139	97	107	532	335	7035
830-930	423	1872	30	79	759	261	142	2140	90	102	443	323	6664
845-945	377	1908	25	79	665	232	152	2108	99	96	358	311	6410
900-1000	320	1880	23	74	606	244	141	1990	88	83	272	292	6013



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

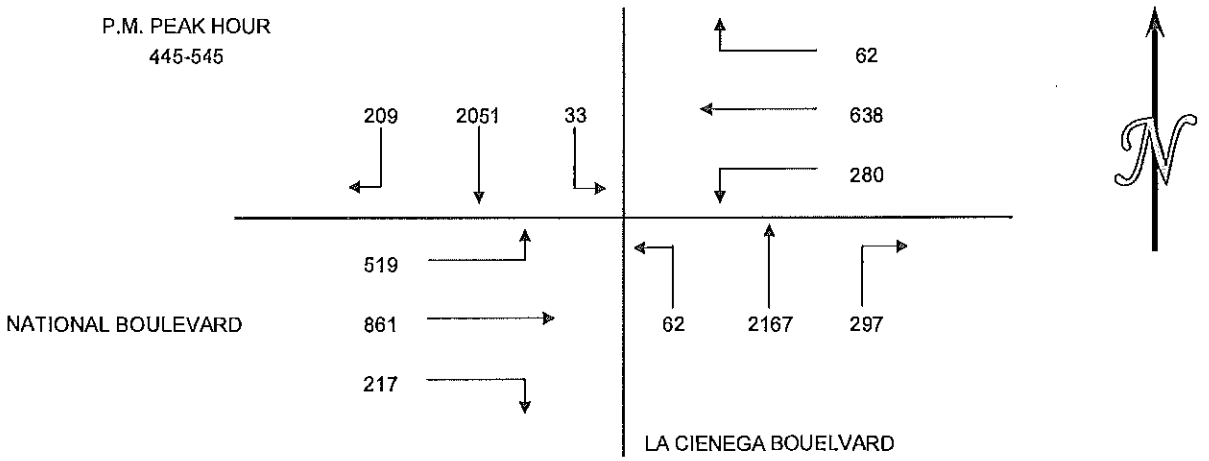
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 10, 2008
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: 29 N/S LA CIENEGA BOULEVARD
E/W NATIONAL BOULEVARD

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-315	55	475	19	15	86	61	71	519	14	27	142	87	1571
315-330	41	446	18	15	107	64	67	483	13	45	173	92	1564
330-345	47	482	20	7	94	42	72	509	26	34	166	92	1591
345-400	54	472	22	24	133	52	65	528	18	49	186	110	1713
400-415	34	451	12	12	141	47	71	497	17	38	187	92	1599
415-430	58	497	12	15	163	73	69	525	15	57	215	105	1804
430-445	43	469	8	13	157	49	58	510	15	41	197	137	1697
445-500	49	524	10	7	193	66	86	567	16	42	211	111	1882
500-515	52	498	6	11	173	63	60	504	13	51	210	149	1790
515-530	52	504	9	22	141	69	79	572	19	73	230	136	1906
530-545	56	525	8	22	131	82	72	524	14	51	210	123	1818
545-600	40	440	13	17	150	61	69	595	10	57	199	146	1797

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-400	197	1875	79	61	420	219	275	2039	71	155	667	381	6439
315-415	176	1851	72	58	475	205	275	2017	74	166	712	386	6467
330-430	193	1902	66	58	531	214	277	2059	76	178	754	399	6707
345-445	189	1889	54	64	594	221	263	2060	65	185	785	444	6813
400-500	184	1941	42	47	654	235	284	2099	63	178	810	445	6982
415-515	202	1988	36	46	686	251	273	2106	59	191	833	502	7173
430-530	196	1995	33	53	664	247	283	2153	63	207	848	533	7275
445-545	209	2051	33	62	638	280	297	2167	62	217	861	519	7396
500-600	200	1967	36	72	595	275	280	2195	56	232	849	554	7311



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

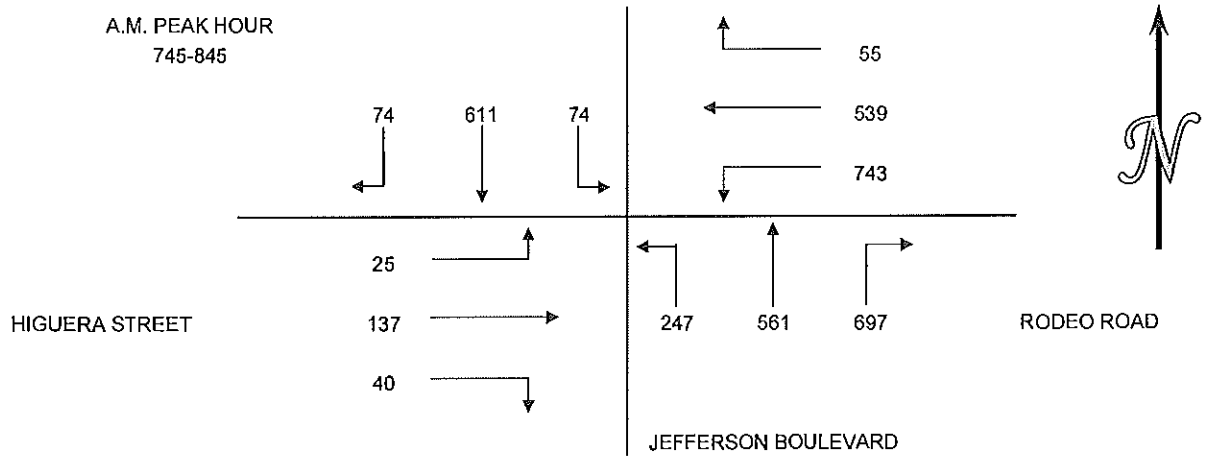
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 10, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: 30 N/S JEFFERSON BOULEVARD
E/W HIGUERA STREET / RODEO ROAD

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	7	113	9	3	99	171	91	84	37	5	15	4	638
715-730	12	138	7	3	121	203	125	106	51	3	19	2	790
730-745	5	163	6	5	100	193	152	123	64	10	25	3	849
745-800	28	186	10	9	128	212	192	148	74	15	47	9	1058
800-815	15	156	22	11	118	190	196	133	81	8	21	3	954
815-830	16	137	25	20	133	158	164	154	55	13	39	10	924
830-845	15	132	17	15	160	183	145	126	37	4	30	3	867
845-900	15	168	11	12	164	203	187	114	65	5	21	6	971
900-915	13	148	8	27	135	186	150	100	98	6	16	4	891
915-930	9	155	7	9	122	143	134	77	74	9	18	12	769
930-945	11	126	7	19	140	159	117	66	66	11	28	9	759
945-1000	8	103	4	11	123	121	100	47	65	13	16	12	623

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	52	600	32	20	448	779	560	461	226	33	106	18	3335
715-815	60	643	45	28	467	798	665	510	270	36	112	17	3651
730-830	64	642	63	45	479	753	704	558	274	46	132	25	3785
745-845	74	611	74	55	539	743	697	561	247	40	137	25	3803
800-900	61	593	75	58	575	734	692	527	238	30	111	22	3716
815-815	59	585	61	74	592	730	646	494	255	28	106	23	3653
830-930	52	603	43	63	581	715	616	417	274	24	85	25	3498
845-945	48	597	33	67	561	691	588	357	303	31	83	31	3390
900-1000	41	532	26	66	520	609	501	290	303	39	78	37	3042



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

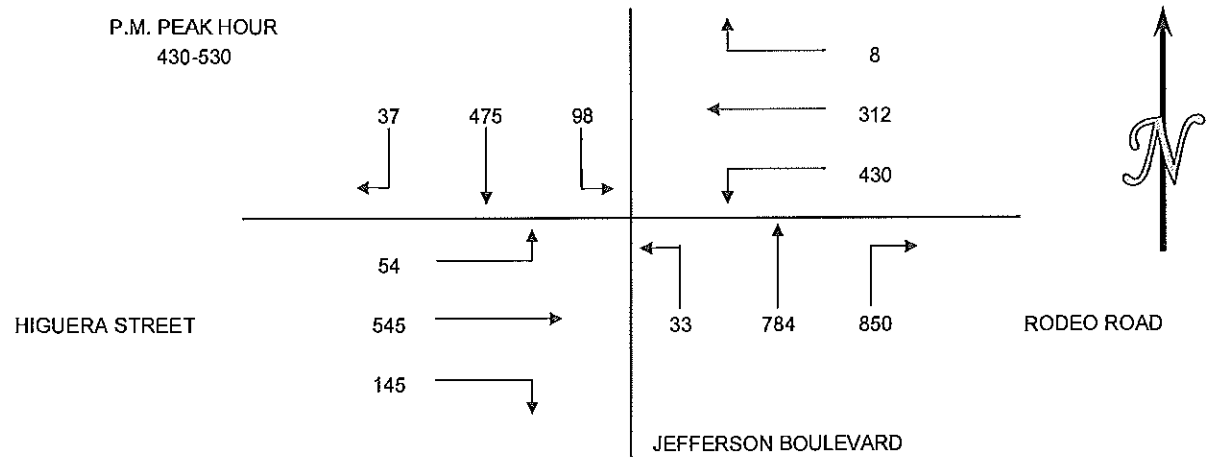
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 10, 2008
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: 30 N/S JEFFERSON BOULEVARD
E/W HIGUERA STREET / RODEO ROAD

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-315	11	81	19	8	42	74	158	120	13	15	85	8	634
315-330	7	65	7	1	69	98	183	138	11	12	109	7	707
330-345	16	68	19	3	76	107	219	146	8	27	128	15	832
345-400	2	97	26	2	82	105	202	157	4	17	112	6	812
400-415	6	93	16	8	88	118	225	170	8	19	99	8	858
415-430	4	122	23	3	89	111	188	156	5	27	108	14	850
430-445	9	139	18	1	67	97	204	172	9	23	121	9	869
445-500	7	129	21	4	83	96	196	204	11	29	140	10	930
500-515	9	116	36	2	79	108	215	212	4	45	157	21	1004
515-530	12	91	23	1	83	129	235	196	9	48	127	14	968
530-545	8	87	19	4	71	101	209	179	8	40	116	12	854
545-600	10	112	17	2	56	90	240	194	12	22	98	7	860

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-400	36	311	71	14	269	384	762	561	36	71	434	36	2985
315-415	31	323	68	14	315	428	829	611	31	75	448	36	3209
330-430	28	380	84	16	335	441	834	629	25	90	447	43	3352
345-445	21	451	83	14	326	431	819	655	26	86	440	37	3389
400-500	26	483	78	16	327	422	813	702	33	98	468	41	3507
415-515	29	506	98	10	318	412	803	744	29	124	526	54	3653
430-530	37	475	98	8	312	430	850	784	33	145	545	54	3771
445-545	36	423	99	11	316	434	855	791	32	162	540	57	3756
500-600	39	406	95	9	289	428	899	781	33	155	498	54	3686



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

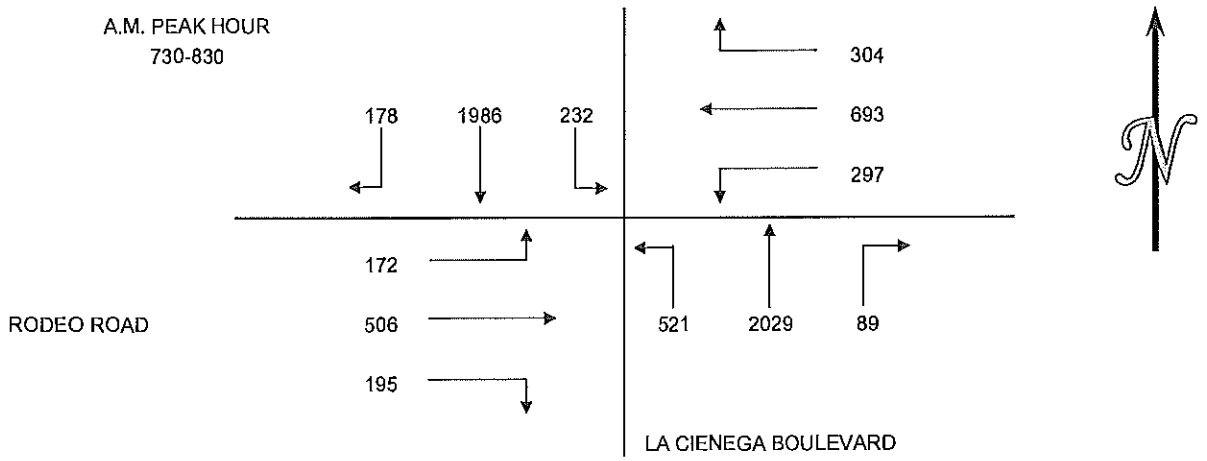
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 11, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: 31 N/S LA CIENEGA BOULEVARD
E/W RODEO ROAD

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	33	400	35	61	111	51	24	497	105	14	70	58	1459
715-730	51	452	72	79	141	67	17	535	136	20	92	38	1700
730-745	71	546	73	61	150	65	22	511	109	37	100	33	1778
745-800	33	405	46	87	172	76	18	521	134	56	128	44	1720
800-815	32	567	72	73	196	72	30	533	148	60	156	63	2002
815-830	42	468	41	83	175	84	19	464	130	42	122	32	1702
830-845	36	436	51	66	138	68	22	470	125	46	113	44	1615
845-900	81	475	36	46	153	72	16	455	112	23	112	56	1637
900-915	30	441	42	39	168	62	19	494	140	31	103	34	1603
915-930	25	483	39	45	142	58	19	472	128	25	86	39	1561
930-945	46	490	64	70	174	80	19	517	108	20	67	66	1721
945-1000	47	433	51	86	116	90	20	460	91	15	79	36	1524

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	188	1803	226	288	574	259	81	2064	484	127	390	173	6657
715-815	187	1970	263	300	659	280	87	2100	527	173	476	178	7200
730-830	178	1986	232	304	693	297	89	2029	521	195	506	172	7202
745-845	143	1876	210	309	681	300	89	1988	537	204	519	183	7039
800-900	191	1946	200	268	662	296	87	1922	515	171	503	195	6956
815-815	189	1820	170	234	634	286	76	1883	507	142	450	166	6557
830-930	172	1835	168	196	601	260	76	1891	505	125	414	173	6416
845-945	182	1889	181	200	637	272	73	1938	488	99	368	195	6522
900-1000	148	1847	196	240	600	290	77	1943	467	91	335	175	6409



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

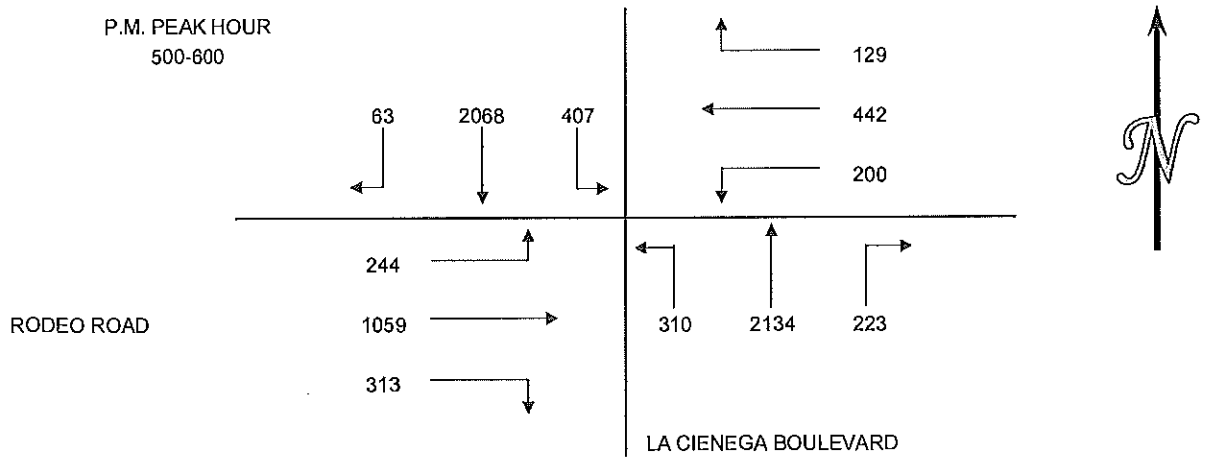
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 11, 2008
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: 31 N/S LA CIENEGA BOULEVARD
E/W RODEO ROAD

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-315	20	462	109	60	110	53	42	449	36	55	222	51	1669
315-330	25	446	89	30	143	39	40	488	34	64	210	50	1658
330-345	15	454	98	44	132	55	29	493	40	52	193	47	1652
345-400	29	443	97	34	113	32	44	511	59	62	201	66	1691
400-415	26	455	106	46	128	34	35	475	66	82	205	42	1700
415-430	16	482	105	24	121	29	31	500	53	90	221	57	1729
430-445	18	510	100	45	105	33	49	532	67	76	233	34	1802
445-500	12	504	99	36	111	45	50	560	80	101	240	60	1898
500-515	13	536	106	29	123	57	70	510	78	98	260	82	1962
515-530	10	490	95	45	99	62	59	549	85	77	278	58	1907
530-545	17	498	100	30	100	35	51	516	73	78	252	62	1812
545-600	23	544	106	25	120	46	43	559	74	60	269	42	1911

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-400	89	1805	393	168	498	179	155	1941	169	233	826	214	6670
315-415	95	1798	390	154	516	160	148	1967	199	260	809	205	6701
330-430	86	1834	406	148	494	150	139	1979	218	286	820	212	6772
345-445	89	1890	408	149	467	128	159	2018	245	310	860	199	6922
400-500	72	1951	410	151	465	141	165	2067	266	349	899	193	7129
415-515	59	2032	410	134	460	164	200	2102	278	365	954	233	7391
430-530	53	2040	400	155	438	197	228	2151	310	352	1011	234	7569
445-545	52	2028	400	140	433	199	230	2135	316	354	1030	262	7579
500-600	63	2068	407	129	442	200	223	2134	310	313	1059	244	7592



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

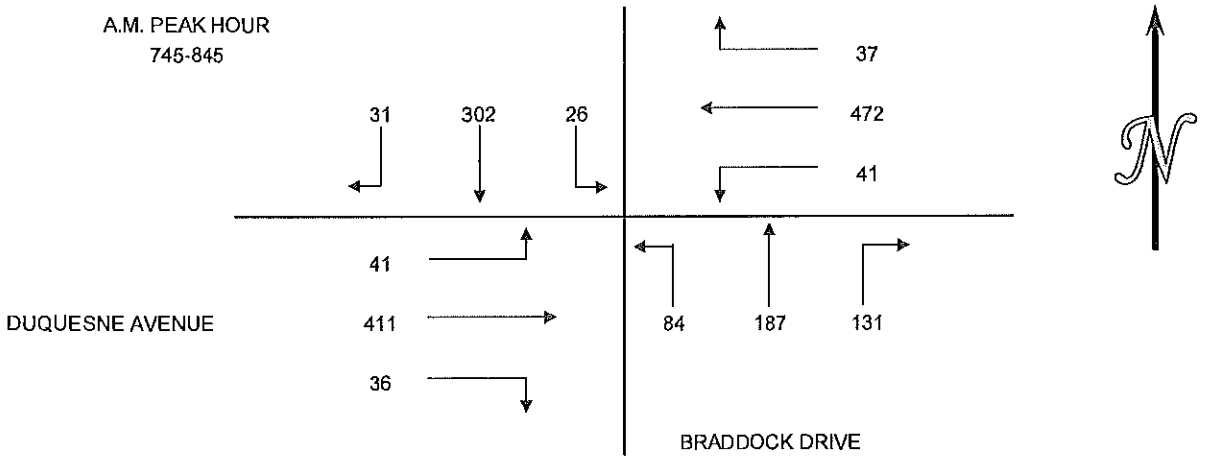
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 11, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: 32 N/S BRADDOCK DRIVE
E/W DUQUESNE AVENUE

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	4	23	2	3	102	8	14	21	7	6	47	4	241
715-730	5	27	1	5	91	7	18	20	13	2	64	6	259
730-745	10	38	2	5	101	16	25	31	15	4	73	9	329
745-800	6	54	5	7	112	10	32	44	16	5	99	16	406
800-815	5	78	3	13	127	9	37	43	27	10	115	12	479
815-830	13	87	13	11	110	15	39	56	15	15	110	9	493
830-845	7	83	5	6	123	7	23	44	26	6	87	4	421
845-900	5	52	3	2	101	8	22	33	16	5	75	4	326
900-915	6	68	4	1	102	2	38	47	27	10	86	9	400
915-930	12	73	3	6	90	6	24	50	26	13	97	14	414
930-945	6	53	5	1	68	1	16	43	19	5	75	9	301
945-1000	9	60	1	1	82	1	24	38	30	13	90	13	362

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	25	142	10	20	406	41	89	116	51	17	283	35	1235
715-815	26	197	11	30	431	42	112	138	71	21	351	43	1473
730-830	34	257	23	36	450	50	133	174	73	34	397	46	1707
745-845	31	302	26	37	472	41	131	187	84	36	411	41	1799
800-900	30	300	24	32	461	39	121	176	84	36	387	29	1719
815-815	31	290	25	20	436	32	122	180	84	36	358	26	1640
830-930	30	276	15	15	416	23	107	174	95	34	345	31	1561
845-945	29	246	15	10	361	17	100	173	88	33	333	36	1441
900-1000	33	254	13	9	342	10	102	178	102	41	348	45	1477



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

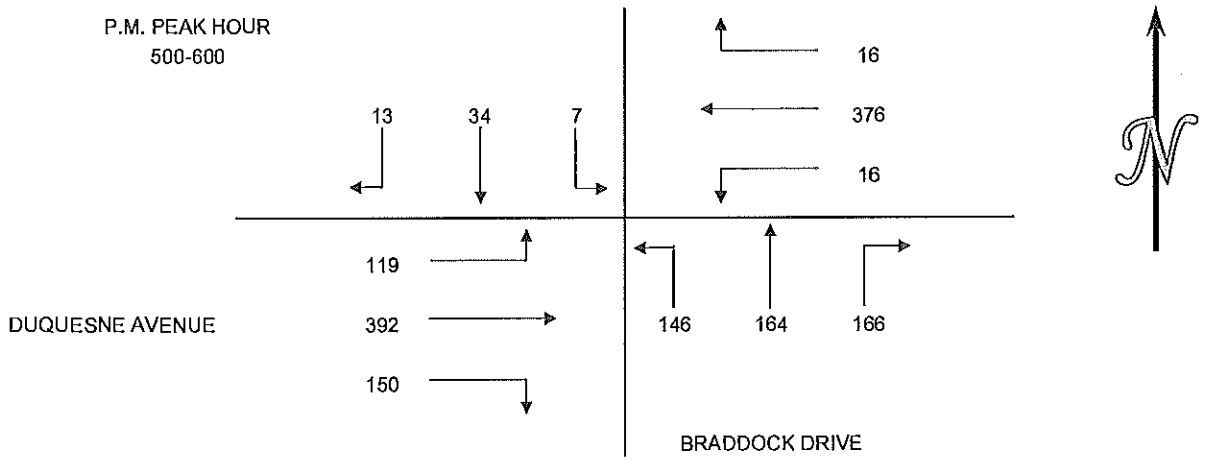
PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 11, 2008
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: 32 N/S BRADDOCK DRIVE
E/W DUQUESNE AVENUE

15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-315	3	15	5	5	83	6	18	32	17	30	78	24	316
315-330	6	23	8	4	74	5	23	22	20	21	73	21	300
330-345	8	20	9	8	89	8	27	19	16	24	82	27	337
345-400	3	10	3	5	99	3	31	13	30	28	101	10	336
400-415	5	8	8	4	87	4	37	21	23	19	87	22	325
415-430	5	4	3	4	84	6	32	18	27	32	84	32	331
430-445	7	11	4	7	103	2	46	31	37	40	103	39	430
445-500	4	12	2	6	82	11	32	21	24	26	91	25	336
500-515	3	10	4	1	100	7	42	32	35	39	90	35	398
515-530	3	6	1	1	80	4	35	38	30	43	100	26	367
530-545	1	5	1	4	93	2	47	43	42	39	109	33	419
545-600	6	13	1	10	103	3	42	51	39	29	93	25	415

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-400	20	68	25	22	345	22	99	86	83	103	334	82	1289
315-415	22	61	28	21	349	20	118	75	89	92	343	80	1298
330-430	21	42	23	21	359	21	127	71	96	103	354	91	1329
345-445	20	33	18	20	373	15	146	83	117	119	375	103	1422
400-500	21	35	17	21	356	23	147	91	111	117	365	118	1422
415-515	19	37	13	18	369	26	152	102	123	137	368	131	1495
430-530	17	39	11	15	365	24	155	122	126	148	384	125	1531
445-545	11	33	8	12	355	24	156	134	131	147	390	119	1520
500-600	13	34	7	16	376	16	166	164	146	150	392	119	1599



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 11, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: 33 N/S LUCERNE AVENUE
E/W DUQUESNE AVENUE

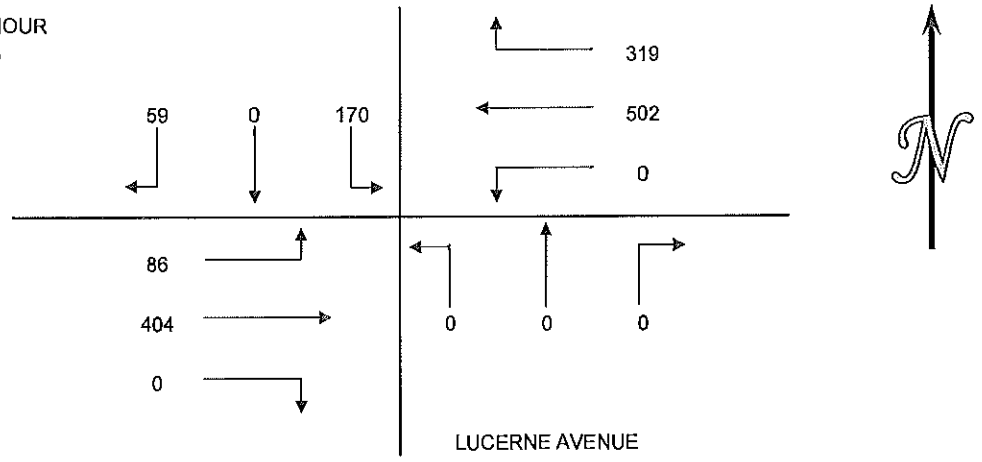
15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	7	0	32	52	98	0	0	0	0	0	63	3	255
715-730	16	0	44	61	110	0	0	0	0	0	80	5	316
730-745	21	0	29	71	96	0	0	0	0	0	81	11	309
745-800	26	0	32	67	103	0	0	0	0	0	94	9	331
800-815	13	0	45	90	113	0	0	0	0	0	87	14	362
815-830	20	0	46	98	141	0	0	0	0	0	103	28	436
830-845	14	0	38	54	114	0	0	0	0	0	121	26	367
845-900	12	0	41	77	134	0	0	0	0	0	93	18	375
900-915	9	0	35	70	107	0	0	0	0	0	95	23	339
915-930	11	0	36	53	94	0	0	0	0	0	86	14	294
930-945	18	0	24	43	88	0	0	0	0	0	106	19	298
945-1000	10	0	23	36	60	0	0	0	0	0	78	22	229

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	70	0	137	251	407	0	0	0	0	0	318	28	1211
715-815	76	0	150	289	422	0	0	0	0	0	342	39	1318
730-830	80	0	152	326	453	0	0	0	0	0	365	62	1438
745-845	73	0	161	309	471	0	0	0	0	0	405	77	1496
800-900	59	0	170	319	502	0	0	0	0	0	404	86	1540
815-815	55	0	160	299	496	0	0	0	0	0	412	95	1517
830-930	46	0	150	254	449	0	0	0	0	0	395	81	1375
845-945	50	0	136	243	423	0	0	0	0	0	380	74	1306
900-1000	48	0	118	202	349	0	0	0	0	0	365	78	1160

A.M. PEAK HOUR
800-900



*Counts provided by the City of Culver City.

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: CA11_5081_013 **Day:** WEDNESDAY

NS STREET: Lucerne Ave DATE: 3/16/2011 LOCATION: City of Culver City

EW STREET: Duquesne Ave DAY: WEDNESDAY PROJECT#: 11-5081-013

PM

NS/EW Streets:	Lucerne Ave			Lucerne Ave			Duquesne Ave			Duquesne Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	1	0	1	0	0	0	0	0	1	0	
4:00 PM		103	28	13	102					47		18	311
4:15 PM		112	46	10	119					46		17	350
4:30 PM		84	56	12	112					44		10	318
4:45 PM		84	49	15	90					31		15	284
5:00 PM		89	48	12	118					66		21	354
5:15 PM		118	50	20	118					84		17	407
5:30 PM		116	60	7	93					84		17	377
5:45 PM		111	68	17	116					93		16	421
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	817	405	106	868	0	0	0	0	495	0	131	2822
APPROACH %'s :	0.00%	66.86%	33.14%	10.88%	89.12%	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	79.07%	0.00%	20.93%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	0	434	226	56	445	0	0	0	0	327	0	71	1559
PEAK HR FACTOR :		0.922			0.908			0.000			0.913		0.926

CONTROL : 3-Way Stop (NB,SB,WB)

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 11, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: 34 N/S JEFFERSON BOUELVARD
E/W DUQUESNE AVENUE

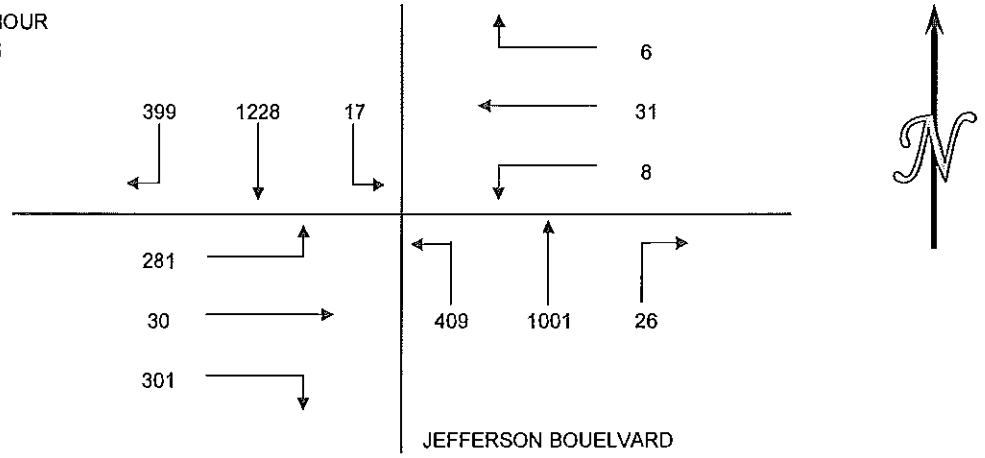
15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	75	242	4	0	0	2	5	170	61	40	6	35	640
715-730	73	295	2	2	0	0	3	223	81	52	2	40	773
730-745	82	322	0	1	4	3	2	194	75	73	4	56	816
745-800	94	337	1	0	2	1	3	225	95	64	5	70	897
800-815	100	329	7	1	7	3	7	267	103	89	7	65	985
815-830	92	271	6	3	13	2	10	224	98	71	5	73	868
830-845	113	291	3	2	9	2	6	285	113	77	13	73	987
845-900	92	218	3	1	10	1	13	194	97	47	3	54	733
900-915	83	292	5	5	12	3	6	185	86	62	11	65	815
915-930	60	238	2	1	2	3	2	175	71	53	7	43	657
930-945	56	215	2	0	1	0	1	163	68	52	5	49	612
945-1000	44	196	6	0	2	0	2	144	60	59	9	49	571

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	324	1196	7	3	6	6	13	812	312	229	17	201	3126
715-815	349	1283	10	4	13	7	15	909	354	278	18	231	3471
730-830	368	1259	14	5	26	9	22	910	371	297	21	264	3566
745-845	399	1228	17	6	31	8	26	1001	409	301	30	281	3737
800-900	397	1109	19	7	39	8	36	970	411	284	28	265	3573
815-815	380	1072	17	11	44	8	35	888	394	257	32	265	3403
830-930	348	1039	13	9	33	9	27	839	367	239	34	235	3192
845-945	291	963	12	7	25	7	22	717	322	214	26	211	2817
900-1000	243	941	15	6	17	6	11	667	285	226	32	206	2655

A.M. PEAK HOUR
745-845



*Counts provided by the City of Culver City.

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

PROJECT: CULVER CITY TRAFFIC COUNTS
DATE: THURSDAY SEPTEMBER 11, 2008
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: 34 N/S JEFFERSON BOULEVARD
E/W DUQUESNE AVENUE

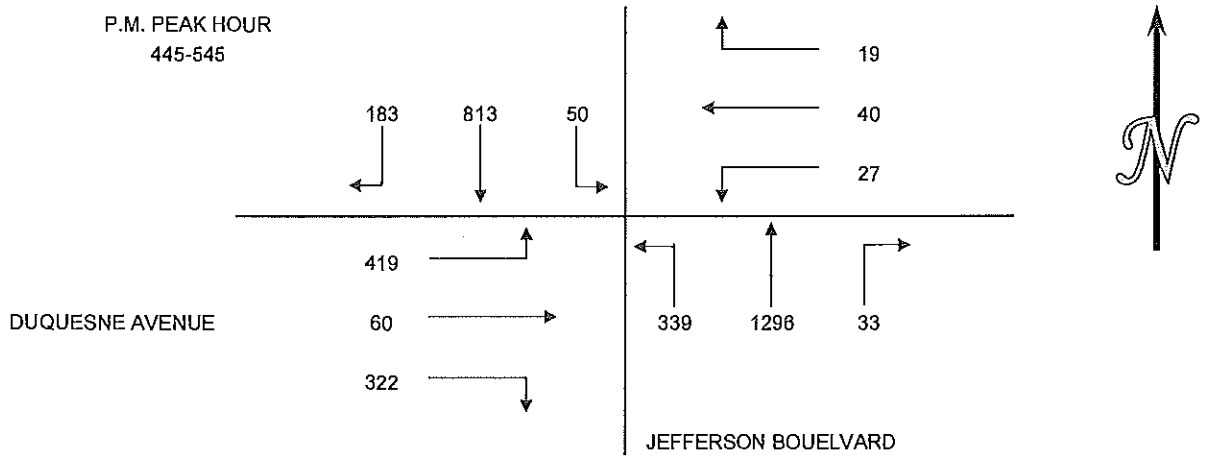
15 MIN COUNTS

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-315	55	192	2	2	2	1	4	297	66	66	3	90	780
315-330	35	174	2	0	1	0	5	285	70	60	5	77	714
330-345	31	165	1	1	1	0	1	327	79	66	7	99	778
345-400	39	176	1	4	3	0	4	303	93	71	4	103	801
400-415	35	188	8	1	1	0	7	272	85	63	3	102	765
415-430	52	172	5	2	1	0	2	291	65	56	8	93	747
430-445	33	173	2	1	2	7	3	284	89	69	15	117	795
445-500	49	197	19	7	5	5	8	302	91	69	17	110	879
500-515	51	209	11	4	6	7	5	336	76	91	18	97	911
515-530	34	192	12	4	18	8	12	340	89	82	12	113	916
530-545	49	215	8	4	11	7	8	318	83	80	13	99	895
545-600	35	224	12	1	5	6	10	214	94	90	15	99	805

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
300-400	160	707	6	7	7	1	14	1212	308	263	19	369	3073
315-415	140	703	12	6	6	0	17	1187	327	260	19	381	3058
330-430	157	701	15	8	6	0	14	1193	322	256	22	397	3091
345-445	159	709	16	8	7	7	16	1150	332	259	30	415	3108
400-500	169	730	34	11	9	12	20	1149	330	257	43	422	3186
415-515	185	751	37	14	14	19	18	1213	321	285	58	417	3332
430-530	167	771	44	16	31	27	28	1262	345	311	62	437	3501
445-545	183	813	50	19	40	27	33	1296	339	322	60	419	3601
500-600	169	840	43	13	40	28	35	1208	342	343	58	408	3527

P.M. PEAK HOUR
445-545



*Counts provided by the City of Culver City.

Prepared by NDS/ATD

VOLUME

Lucerne Ave between Lafayette Place & Duquesne Ave

Day: Wednesday
Date: 3/16/2011

City: Culver City
Project #: CA11_5082_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	3,340	3,289	6,629

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00			1	1	2	12:00			34	51	85
00:15			3	1	4	12:15			42	59	101
00:30			4	2	6	12:30			46	56	102
00:45			1	2	3	12:45			49	41	90
			9	6	15				171	207	378
01:00			2	0	2	13:00			42	54	96
01:15			1	3	4	13:15			71	63	134
01:30			2	1	3	13:30			70	69	139
01:45			1	0	1	13:45			51	42	93
			6	4	10				234	228	462
02:00			0	0	0	14:00			75	43	118
02:15			2	0	2	14:15			55	47	102
02:30			0	0	0	14:30			63	56	119
02:45			0	1	1	14:45			53	51	104
			2	1	3				246	197	443
03:00			0	0	0	15:00			64	53	117
03:15			0	1	1	15:15			46	56	102
03:30			1	1	2	15:30			50	42	92
03:45			1	3	4	15:45			61	43	104
			2	5	7				221	194	415
04:00			0	1	1	16:00			48	57	105
04:15			2	1	3	16:15			54	51	105
04:30			2	4	6	16:30			63	49	112
04:45			2	6	8	16:45			63	42	105
			6	12	18				228	199	427
05:00			0	3	3	17:00			63	80	143
05:15			5	4	9	17:15			65	105	170
05:30			3	6	9	17:30			79	128	207
05:45			7	5	12	17:45			68	119	187
			15	18	33				275	432	707
06:00			6	6	12	18:00			79	117	196
06:15			14	11	25	18:15			64	86	150
06:30			16	17	33	18:30			72	79	151
06:45			17	17	34	18:45			78	65	143
			53	51	104				293	347	640
07:00			36	19	55	19:00			64	63	127
07:15			54	29	83	19:15			41	66	107
07:30			60	50	110	19:30			40	47	87
07:45			92	76	168	19:45			25	49	74
			242	174	416				170	225	395
08:00			101	75	176	20:00			35	41	76
08:15			125	68	193	20:15			29	39	68
08:30			96	79	175	20:30			20	21	41
08:45			99	51	150	20:45			21	24	45
			421	273	694				105	125	230
09:00			86	57	143	21:00			19	12	31
09:15			70	45	115	21:15			21	22	43
09:30			58	35	93	21:30			8	14	22
09:45			38	33	71	21:45			5	10	15
			252	170	422				53	58	111
10:00			53	40	93	22:00			14	12	26
10:15			43	41	84	22:15			10	12	22
10:30			31	36	67	22:30			8	10	18
10:45			24	28	52	22:45			7	10	17
			151	145	296				39	44	83
11:00			34	27	61	23:00			7	6	13
11:15			33	49	82	23:15			2	5	7
11:30			30	42	72	23:30			5	1	6
11:45			34	41	75	23:45			1	3	4
			131	159	290				15	15	30
TOTALS			1290	1018	2308	TOTALS			2050	2271	4321
SPLIT %			55.9%	44.1%	34.8%	SPLIT %			47.4%	52.6%	65.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	3,340	3,289	6,629

AM Peak Hour			08:00	07:45	07:45	PM Peak			18:00	17:15	17:15
AM Pk Volume			421	298	712	PM Pk Volume			293	469	760
Pk Hr Factor			0.842	0.943	0.922	Pk Hr Factor			0.927	0.916	0.918
7 - 9 Volume	0	0	663	447	1110	4 - 6 Volume	0	0	503	631	1134
7 - 9 Peak Hour			08:00	07:45	07:45	4 - 6 Peak			17:00	17:00	17:00
7 - 9 Pk Volume	0	0	421	298	712	4 - 6 Pk	0	0	275	432	707
Pk Hr Factor	0.000	0.000	0.842	0.943	0.922	Pk Hr Factor	0.000	0.000	0.870	0.844	0.854

THE TRAFFIC SOLUTION - ADT WORKSHEET

PROJECT: CULVER CITY
LOCATION: LUCERNE AVENUE BTWN INCE BOULEVARD & HIGUERA STREET
DATE: WEDNESDAY, MAY 26, 2010
FILE NO: A-4

DIRECTION:	NORTHBOUND				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	2	2	2	6
01:00	0	0	1	0	1
02:00	2	1	0	0	3
03:00	2	0	0	2	4
04:00	0	1	0	2	3
05:00	2	2	1	3	8
06:00	4	10	9	17	40
07:00	11	23	40	54	128
08:00	55	51	58	62	226
09:00	47	44	38	26	155
10:00	32	23	19	19	93
11:00	25	14	31	24	94
12:00	25	25	34	35	119
13:00	34	46	35	44	159
14:00	35	34	34	30	133
15:00	25	31	38	39	133
16:00	37	34	29	59	159
17:00	46	38	44	44	172
18:00	53	46	42	33	174
19:00	26	27	18	23	94
20:00	21	24	18	18	81
21:00	17	14	9	10	50
22:00	7	8	6	7	28
23:00	6	3	3	4	16
				TOTAL	2079
AM PEAK HOUR		08:00-09:00			
VOLUME		226			
PM PEAK HOUR		17:30-18:30			
VOLUME		187			

DIRECTION:	SOUTHBOUND				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	4	2	1	2	9
01:00	2	2	1	2	7
02:00	1	1	1	0	3
03:00	0	0	1	2	3
04:00	0	1	1	1	3
05:00	3	0	2	8	13
06:00	2	4	5	10	21
07:00	20	23	39	63	145
08:00	59	62	40	44	205
09:00	23	22	24	26	95
10:00	20	14	21	22	77
11:00	22	21	21	29	93
12:00	27	27	26	22	102
13:00	32	34	39	14	119
14:00	25	25	26	33	109
15:00	26	28	22	34	110
16:00	33	22	32	30	117
17:00	37	48	54	42	181
18:00	55	42	45	33	175
19:00	36	18	17	11	82
20:00	27	21	11	10	69
21:00	8	14	26	12	60
22:00	7	7	7	6	27
23:00	1	7	1	4	13
				TOTAL	1838
AM PEAK HOUR		07:45-08:45			
VOLUME		224			
PM PEAK HOUR		17:15-18:15			
VOLUME		199			

TOTAL BI-DIRECTIONAL VOLUME	3917

*Counts provided by the City of Culver City.

THE TRAFFIC SOLUTION - ADT WORKSHEET

PROJECT: CULVER CITY
LOCATION: WESLEY STREET BTWN HIGUERA STREET & NATIONAL BOULEVARD
DATE: WEDNESDAY, MAY 26, 2010
FILE NO: A-3

DIRECTION:		NORTHBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	1	1	0	2
01:00	0	0	0	0	0
02:00	0	0	0	0	0
03:00	0	0	2	0	2
04:00	0	1	0	1	2
05:00	0	0	0	0	0
06:00	0	0	0	1	1
07:00	7	5	7	8	27
08:00	4	10	8	4	26
09:00	4	3	4	1	12
10:00	2	1	2	0	5
11:00	8	3	5	3	19
12:00	4	3	1	1	9
13:00	4	5	1	5	15
14:00	4	6	4	5	19
15:00	2	3	3	2	10
16:00	8	2	6	4	20
17:00	7	7	7	5	26
18:00	4	4	2	3	13
19:00	6	7	2	3	18
20:00	3	4	0	5	12
21:00	2	3	2	0	7
22:00	1	1	1	5	8
23:00	1	0	0	0	1
				TOTAL	254

AM PEAK HOUR	07:45-08:45
VOLUME	30
PM PEAK HOUR	17:00-18:00
VOLUME	26

DIRECTION:		SOUTHBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	0	0	0	0
01:00	0	0	0	0	0
02:00	0	1	0	0	1
03:00	0	0	1	0	1
04:00	0	0	0	1	1
05:00	0	2	0	0	2
06:00	0	0	2	4	6
07:00	5	10	8	9	32
08:00	3	3	4	7	17
09:00	1	2	5	4	12
10:00	4	3	3	5	15
11:00	4	5	5	5	19
12:00	4	5	5	4	18
13:00	7	3	3	4	17
14:00	6	2	5	1	14
15:00	2	2	4	4	12
16:00	5	8	5	5	23
17:00	6	9	6	4	25
18:00	6	2	7	3	18
19:00	2	3	1	4	10
20:00	2	1	2	1	6
21:00	0	3	2	0	5
22:00	0	3	0	0	3
23:00	1	1	0	1	3
				TOTAL	260

AM PEAK HOUR	07:00-08:00
VOLUME	32
PM PEAK HOUR	17:00-18:00
VOLUME	25

TOTAL BI-DIRECTIONAL VOLUME	514

*Counts provided by the City of Culver City.

THE TRAFFIC SOLUTION - ADT WORKSHEET

PROJECT: CULVER CITY
LOCATION: HELMS AVENUE BTWN HIGUERA STREET & NATIONAL BOULEVARD
DATE: WEDNESDAY, MAY 26, 2010
FILE NO: A-2

DIRECTION:	NORTHBOUND				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	0	0	0	0
01:00	0	0	0	0	0
02:00	0	0	0	0	0
03:00	0	0	1	0	1
04:00	0	0	0	0	0
05:00	0	0	0	2	2
06:00	0	2	0	2	4
07:00	2	2	2	7	13
08:00	6	6	3	2	17
09:00	0	0	2	3	5
10:00	1	1	1	5	8
11:00	4	2	3	4	13
12:00	5	4	4	3	16
13:00	7	3	6	7	23
14:00	1	6	1	2	10
15:00	6	3	3	6	18
16:00	9	3	2	3	17
17:00	3	1	2	2	8
18:00	4	5	6	7	22
19:00	3	1	5	1	10
20:00	2	2	1	2	7
21:00	2	1	2	1	6
22:00	0	0	0	0	0
23:00	1	1	0	1	3
				TOTAL	203

AM PEAK HOUR	07:45-08:45
VOLUME	22
PM PEAK HOUR	13:00-14:00
VOLUME	23

DIRECTION:	SOUTHBOUND				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	0	2	0	2
01:00	0	0	0	1	1
02:00	0	0	0	0	0
03:00	0	0	2	0	2
04:00	0	0	0	0	0
05:00	0	0	0	1	1
06:00	0	0	0	2	2
07:00	1	5	3	9	18
08:00	10	18	7	10	45
09:00	4	8	4	2	18
10:00	1	3	3	2	9
11:00	5	5	4	5	19
12:00	6	5	7	2	20
13:00	6	5	5	6	22
14:00	2	9	11	7	29
15:00	2	9	1	4	16
16:00	7	2	4	4	17
17:00	9	6	6	3	24
18:00	3	4	3	4	14
19:00	3	3	0	2	8
20:00	2	5	3	1	11
21:00	5	0	2	1	8
22:00	0	1	0	0	1
23:00	0	1	0	1	2
				TOTAL	289

AM PEAK HOUR	08:00-09:00
VOLUME	45
PM PEAK HOUR	14:00-15:00
VOLUME	29

TOTAL BI-DIRECTIONAL VOLUME	492

*Counts provided by the City of Culver City.

THE TRAFFIC SOLUTION - ADT WORKSHEET

PROJECT: CULVER CITY
LOCATION: SCHAEFER STREET BTWN HIGUERA STREET & NATIONAL BOULEVARD
DATE: WEDNESDAY, MAY 26, 2010
FILE NO: A-1

DIRECTION:	NORTHBOUND				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	0	0	1	1
01:00	0	0	0	0	0
02:00	0	0	0	0	0
03:00	0	0	1	0	1
04:00	0	0	1	0	1
05:00	0	0	0	3	3
06:00	0	1	0	1	2
07:00	2	2	2	4	10
08:00	9	4	6	2	21
09:00	4	6	7	5	22
10:00	3	3	5	9	20
11:00	2	4	8	4	18
12:00	5	8	7	3	23
13:00	1	2	4	7	14
14:00	5	1	6	6	18
15:00	3	3	5	7	18
16:00	4	6	5	3	18
17:00	7	5	3	7	22
18:00	2	4	5	6	17
19:00	3	3	1	2	9
20:00	2	4	2	2	10
21:00	2	0	0	3	5
22:00	2	1	1	0	4
23:00	2	2	0	0	4
				TOTAL	261

AM PEAK HOUR	07:45-08:45
VOLUME	23
PM PEAK HOUR	12:00-13:00
VOLUME	23

DIRECTION:	SOUTHBOUND				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	0	0	2	2
01:00	0	0	0	0	0
02:00	0	0	1	0	1
03:00	0	0	1	0	1
04:00	0	0	0	0	0
05:00	0	0	0	1	1
06:00	1	1	1	2	5
07:00	4	6	5	11	26
08:00	10	12	4	8	34
09:00	9	3	6	4	22
10:00	4	3	9	3	19
11:00	6	7	7	4	24
12:00	4	9	5	6	24
13:00	6	4	8	5	23
14:00	7	5	6	4	22
15:00	6	13	10	7	36
16:00	3	4	8	5	20
17:00	10	8	7	4	29
18:00	7	2	2	2	13
19:00	5	0	3	2	10
20:00	4	1	1	2	8
21:00	2	0	3	3	8
22:00	0	2	0	2	4
23:00	0	0	0	1	1
				TOTAL	333

AM PEAK HOUR	07:30-08:30
VOLUME	38
PM PEAK HOUR	15:00-16:00
VOLUME	36

TOTAL BI-DIRECTIONAL VOLUME	594

*Counts provided by the City of Culver City.

Prepared by NDS/ATD

VOLUME

Higuera St between Washington Blvd & Hubbard St

Day: Wednesday
Date: 3/16/2011

City: Culver City
Project #: CA11_5082_002

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	4,542	3,819	8,361

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			6		0		6		12:00			54		51		105	
00:15			6		2		8		12:15			62		60		122	
00:30			5		3		8		12:30			73		69		142	
00:45			6	23	1	6	7	29	12:45			75	264	73	253	148	517
01:00			9		3		12		13:00			66		91		157	
01:15			5		2		7		13:15			75		98		173	
01:30			2		2		4		13:30			88		60		148	
01:45			0	16	0	7	0	23	13:45			65	294	50	299	115	593
02:00			0		0		0		14:00			64		45		109	
02:15			1		0		1		14:15			73		43		116	
02:30			2		0		2		14:30			82		48		130	
02:45			1	4	1	1	2	5	14:45			97	316	44	180	141	496
03:00			0		0		0		15:00			100		72		172	
03:15			0		1		1		15:15			104		62		166	
03:30			0		1		1		15:30			71		48		119	
03:45			3	3	3	5	6	8	15:45			76	351	56	238	132	589
04:00			3		3		6		16:00			86		43		129	
04:15			1		1		2		16:15			79		50		129	
04:30			0		3		3		16:30			85		58		143	
04:45			1	5	4	11	5	16	16:45			85	335	62	213	147	548
05:00			4		2		6		17:00			92		47		139	
05:15			7		8		15		17:15			105		46		151	
05:30			17		7		24		17:30			103		70		173	
05:45			21	49	21	38	42	87	17:45			112	412	85	248	197	660
06:00			14		13		27		18:00			97		86		183	
06:15			19		19		38		18:15			111		79		190	
06:30			23		17		40		18:30			84		76		160	
06:45			24	80	49	98	73	178	18:45			85	377	78	319	163	696
07:00			27		69		96		19:00			71		77		148	
07:15			34		95		129		19:15			46		38		84	
07:30			63		112		175		19:30			76		41		117	
07:45			95	219	124	400	219	619	19:45			45	238	35	191	80	429
08:00			97		94		191		20:00			38		32		70	
08:15			90		107		197		20:15			38		23		61	
08:30			88		121		209		20:30			37		19		56	
08:45			119	394	112	434	231	828	20:45			36	149	18	92	54	241
09:00			94		111		205		21:00			29		20		49	
09:15			81		106		187		21:15			30		9		39	
09:30			79		75		154		21:30			26		11		37	
09:45			79	333	66	358	145	691	21:45			18	103	9	49	27	152
10:00			68		53		121		22:00			26		6		32	
10:15			74		36		110		22:15			22		9		31	
10:30			71		42		113		22:30			20		7		27	
10:45			58	271	38	169	96	440	22:45			12	80	2	24	14	104
11:00			44		51		95		23:00			12		6		18	
11:15			38		30		68		23:15			8		5		13	
11:30			60		45		105		23:30			7		8		15	
11:45			50	192	37	163	87	355	23:45			7	34	4	23	11	57
TOTALS				1589		1690		**3279**	**TOTALS**				2953		2129		**5082**
SPLIT %				48.5%		51.5%		**39.2%**	**SPLIT %**				58.1%		41.9%		**60.8%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	4,542	3,819	8,361

AM Peak Hour			08:00	08:15	**08:15**	PM Peak			17:30	12:30	**17:30**
AM Pk Volume			394	451	**842**	PM Pk Volume			423	331	**743**
Pk Hr Factor			0.828	0.932	**0.911**	Pk Hr Factor			0.944	0.844	**0.943**
7 - 9 Volume	0	0	613	834	**1447**	4 - 6 Volume	0	0	747	461	**1208**
7 - 9 Peak Hour			08:00	07:45	**08:00**	4 - 6 Peak			17:00	17:00	**17:00**
7 - 9 Pk Volume	0	0	394	446	**828**	4 - 6 Pk Volume	0	0	412	248	**660**
Pk Hr Factor	0.000	0.000	0.828	0.899	**0.896**	Pk Hr Factor	0.000	0.000	0.920	0.729	**0.838**

THE TRAFFIC SOLUTION - ADT WORKSHEET

PROJECT: CULVER CITY
LOCATION: HIGUERA STREET BTWN LUCERNE AVENUE & WESLEY STREET
DATE: WEDNESDAY, MAY 26, 2010
FILE NO: A-5

DIRECTION:	WESTBOUND				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	3	2	3	2	10
01:00	0	3	3	0	6
02:00	0	2	0	0	2
03:00	1	1	1	2	5
04:00	0	2	1	5	8
05:00	1	4	4	6	15
06:00	5	11	20	28	64
07:00	54	81	112	123	370
08:00	106	126	68	79	379
09:00	44	38	42	43	167
10:00	35	31	31	38	135
11:00	31	41	31	48	151
12:00	66	47	57	55	225
13:00	59	55	33	40	187
14:00	53	46	48	41	188
15:00	53	34	33	44	164
16:00	40	42	41	40	163
17:00	74	54	67	63	258
18:00	78	46	33	43	200
19:00	44	21	18	23	106
20:00	28	12	18	12	70
21:00	20	16	8	4	48
22:00	15	8	8	4	35
23:00	4	2	3	2	11
				TOTAL	2967

AM PEAK HOUR	07:30-08:30
VOLUME	467
PM PEAK HOUR	17:15-18:15
VOLUME	262

DIRECTION:	EASTBOUND				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	2	5	4	1	12
01:00	0	1	1	1	3
02:00	2	1	1	1	5
03:00	2	1	0	4	7
04:00	4	1	6	4	15
05:00	5	5	20	23	53
06:00	9	18	22	24	73
07:00	25	23	45	103	196
08:00	78	68	81	104	331
09:00	107	78	71	60	316
10:00	63	33	48	44	188
11:00	45	45	34	46	170
12:00	62	59	58	67	246
13:00	82	93	79	90	344
14:00	79	76	54	73	282
15:00	81	58	62	64	265
16:00	70	69	59	73	271
17:00	65	65	57	73	260
18:00	75	77	62	63	277
19:00	37	51	33	23	144
20:00	24	33	29	40	126
21:00	20	18	20	8	66
22:00	11	14	14	9	48
23:00	10	10	7	1	28
				TOTAL	3726

AM PEAK HOUR	08:15-09:15
VOLUME	360
PM PEAK HOUR	13:00-14:00
VOLUME	344

5:30 PM

TOTAL BI-DIRECTIONAL VOLUME	6693

*Counts provided by the City of Culver City.

Prepared by NDS/ATD

VOLUME

Higuera St between Jefferson Blvd & Hayden Ave

Day: Wednesday
Date: 3/16/2011

City: Culver City
Project #: CA11_5082_003

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,219	5,321	6,540

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			2		5		7		12:00			21		68		89	
00:15			0		2		2		12:15			12		66		78	
00:30			0		2		2		12:30			10		66		76	
00:45			1	3	1	10	2	13	12:45			19	62	62	262	81	324
01:00			0		0		0		13:00			23		56		79	
01:15			0		5		5		13:15			18		66		84	
01:30			1		2		3		13:30			22		74		96	
01:45			2	3	4	11	6	14	13:45			18	81	91	287	109	368
02:00			0		0		0		14:00			15		110		125	
02:15			0		0		0		14:15			24		113		137	
02:30			0		3		3		14:30			23		139		162	
02:45			0		3	6	3	6	14:45			28	90	121	483	149	573
03:00			0		4		4		15:00			30		99		129	
03:15			1		0		1		15:15			27		58		85	
03:30			0		1		1		15:30			45		69		114	
03:45			0	1	2	7	2	8	15:45			27	129	82	308	109	437
04:00			0		2		2		16:00			27		86		113	
04:15			0		1		1		16:15			24		87		111	
04:30			0		9		9		16:30			27		93		120	
04:45			1	1	3	15	4	16	16:45			32	110	87	353	119	463
05:00			0		3		3		17:00			58		98		156	
05:15			0		7		7		17:15			44		81		125	
05:30			3		11		14		17:30			43		70		113	
05:45			0	3	28	49	28	52	17:45			42	187	56	305	98	492
06:00			2		24		26		18:00			40		64		104	
06:15			1		23		24		18:15			29		61		90	
06:30			3		57		60		18:30			18		61		79	
06:45			4	10	105	209	109	219	18:45			22	109	69	255	91	364
07:00			4		131		135		19:00			26		63		89	
07:15			0		133		133		19:15			23		54		77	
07:30			4		169		173		19:30			21		48		69	
07:45			14	22	173	606	187	628	19:45			16	86	47	212	63	298
08:00			13		161		174		20:00			14		30		44	
08:15			10		150		160		20:15			11		26		37	
08:30			13		162		175		20:30			11		27		38	
08:45			13	49	150	623	163	672	20:45			8	44	32	115	40	159
09:00			20		152		172		21:00			16		17		33	
09:15			9		125		134		21:15			3		13		16	
09:30			15		91		106		21:30			6		16		22	
09:45			11	55	112	480	123	535	21:45			1	26	26	72	27	98
10:00			16		120		136		22:00			3		15		18	
10:15			13		66		79		22:15			5		16		21	
10:30			11		60		71		22:30			5		22		27	
10:45			12	52	78	324	90	376	22:45			5	18	9	62	14	80
11:00			23		55		78		23:00			2		5		7	
11:15			11		57		68		23:15			3		8		11	
11:30			21		57		78		23:30			3		4		7	
11:45			14	69	75	244	89	313	23:45			1	9	6	23	7	32
TOTALS				268		2584		2852	TOTALS				951		2737		3688
SPLIT %				9.4%		90.6%		43.6%	SPLIT %				25.8%		74.2%		56.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,219	5,321	6,540

AM Peak Hour			11:00	07:30	07:45	PM Peak	17:00	14:00	14:15
AM Pk Volume			69	653	696	PM Pk Volume	187	483	577
Pk Hr Factor			0.750	0.944	0.930	Pk Hr Factor	0.806	0.869	0.890
7 - 9 Volume	0	0	71	1229	1300	4 - 6 Volume	0	0	297	658	955
7 - 9 Peak Hour			07:45	07:30	07:45	4 - 6 Peak Hour			17:00	16:15	16:30
7 - 9 Pk Volume	0	0	50	653	696	4 - 6 Pk Volume	0	0	187	365	520
Pk Hr Factor	0.000	0.000	0.893	0.944	0.930	Pk Hr Factor	0.000	0.000	0.806	0.931	0.833

APPENDIX D

Capacity Calculation Worksheets

Existing (2011) Conditions

Existing (2011) Conditions

AM Peak Hour

EXISTAM

May 25, 2011 ,Wednesday 12:36:15 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: Cattaragus Avenue I/S No: 1

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

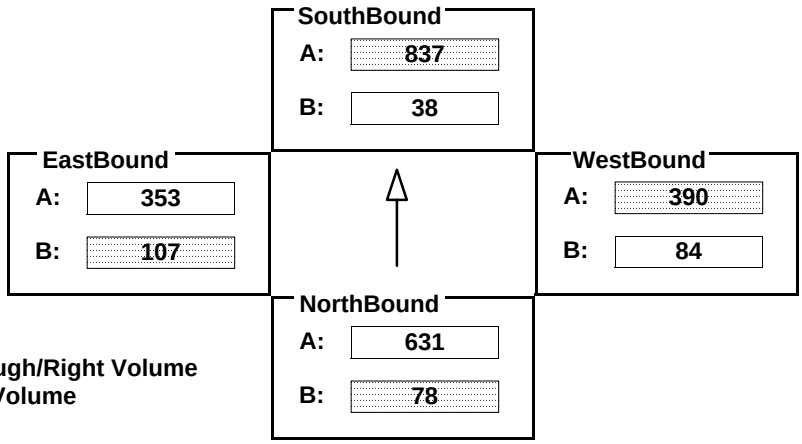
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	78	1257	5	38	1602	71	84	236	70	107	136	110
AMBIENT												
RELATED												
PROJECT												
TOTAL	78	1257	5	38	1602	71	84	236	70	107	136	110

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{78 + 837 + 390 + 107}{*1500} = 0.871$$

LOS = D

0.871-0.03* = 0.841 LOS D
*ATCS Benefit

Developed by Chun Wong, 12/94

EXISTAM

May 25, 2011 ,Wednesday 12:36:15 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: I-10 WB Off-Ramp/Kincardine Av I/S No: 2

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

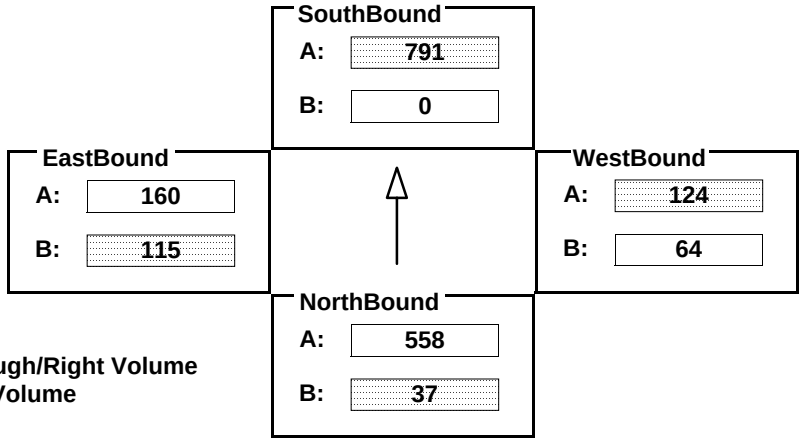
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	37	1115	0	0	1508	73	64	13	170	115	0	45
AMBIENT												
RELATED												
PROJECT												
TOTAL	37	1115	0	0	1508	73	64	13	170	115	0	45

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	0	0	0	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	0	0	0	1	0	1	0	0	0	0	0	0	0	1

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{37 + 791 + 124 + 115}{*1500} = 0.641$$

LOS = B

0.641-0.03* = 0.611 LOS B
*ATCS Benefit

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CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: National Boulevard I/S No: 3

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

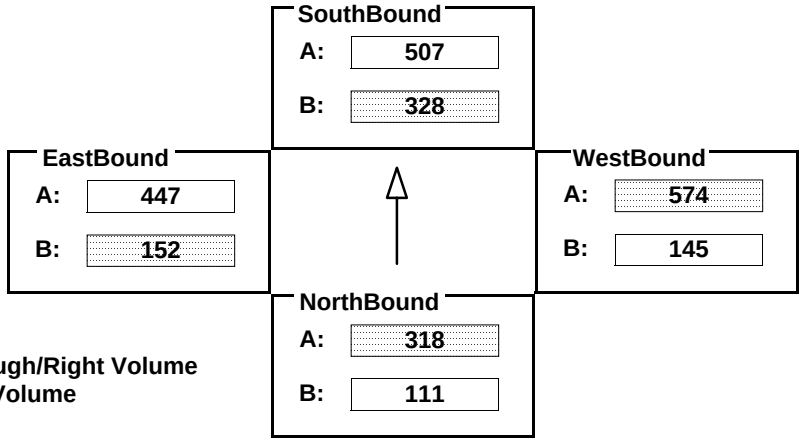
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	111	592	44	596	814	200	145	574	457	152	639	254
AMBIENT												
RELATED												
PROJECT												
TOTAL	111	592	44	596	814	200	145	574	457	152	639	254

LANE	1	0	1	0	1	0	0	2	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	Auto	Perm	OLA	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{318 + 328 + 574 + 152}{*1375} = 0.928$$

LOS = E

0.928-0.03* = 0.898 LOS D
*ATCS Benefit

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EXISTAM

May 25, 2011 ,Wednesday 12:36:15 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: National Boulevard W/E: I-10 EB On-Ramp I/S No: 4

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

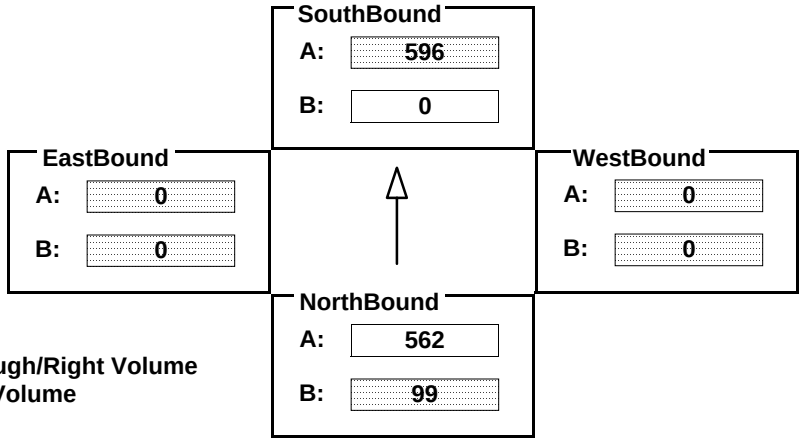
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	99	1123	0	0	771	596	0	0	0	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	99	1123	0	0	771	596	0	0	0	0	0	0

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	0	0	0	0	2	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Perm	Auto	<none>	<none>	<none>	<none>

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = +

$$V/C = \frac{99 + 596 + +}{*1500} = 0.393$$

LOS = A

0.393-0.03* = 0.363 LOS A
*ATCS Benefit

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EXISTAM

May 25, 2011 ,Wednesday 12:36:15 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Hughes Avenue W/E: Venice Boulevard I/S No: 5

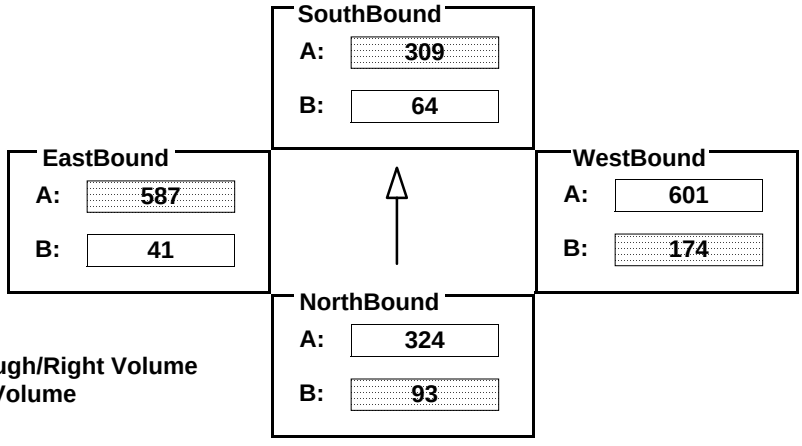
AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	93	182	49	64	199	46	174	1804	43	41	1760	117
AMBIENT												
RELATED												
PROJECT												
TOTAL	93	182	49	64	199	46	174	1804	43	41	1760	117
LANE	0 0 0 1 0 0 0			0 0 0 1 0 0 0			1 0 3 0 0 1 0			1 0 3 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{93 + 309 + 174 + 587}{*1500} = 0.705$$

LOS = C

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EXISTAM

May 25, 2011 ,Wednesday 12:36:15 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Bagley Avenue W/E: Venice Boulevard I/S No: 6

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

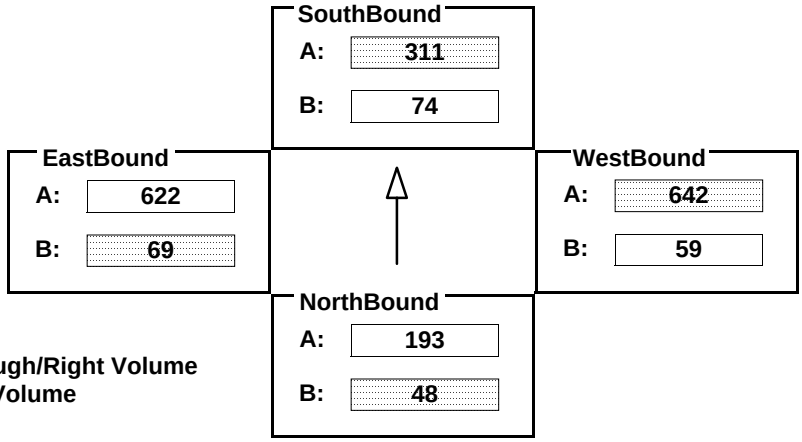
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	48	150	43	74	170	67	59	1926	40	69	1817	50
AMBIENT												
RELATED												
PROJECT												
TOTAL	48	150	43	74	170	67	59	1926	40	69	1817	50

LANE	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	3	0	0	1	0	1	0	2	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{48 + 311 + 642 + 69}{*1375} = 0.708$$

LOS = C

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CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Culver Boulevard W/E: Venice Boulevard I/S No: 7

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

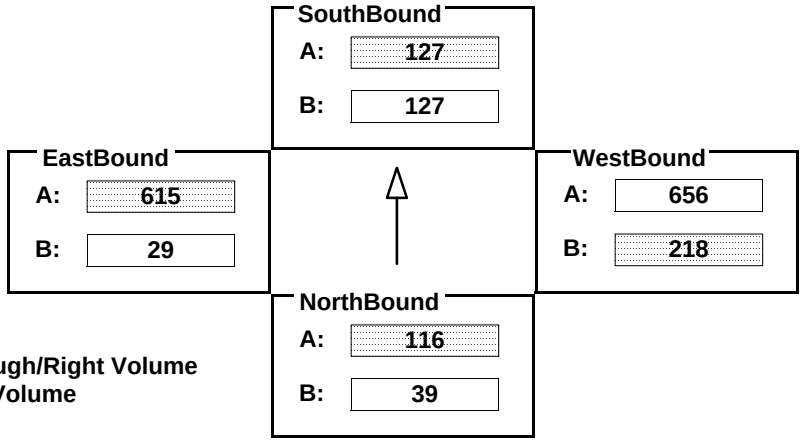
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	39	84	607	178	44	32	396	1821	148	29	1820	26
AMBIENT												
RELATED												
PROJECT												
TOTAL	39	84	607	178	44	32	396	1821	148	29	1820	26

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	0	2	0	1	0	0	1	0	0	0

	WESTBOUND							EASTBOUND						
LANE	2	0	2	0	1	0	0	1	0	2	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	OLA	Split	Auto	Prot-Fix	Auto	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{116 + 127 + 218 + 615}{*1375} = 0.713$$

LOS = C

0.713-0.03* = 0.683 LOS B
*ATCS Benefit

Developed by Chun Wong, 12/94

EXISTAM

May 25, 2011 ,Wednesday 12:36:15 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: Venice Boulevard I/S No: 8

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

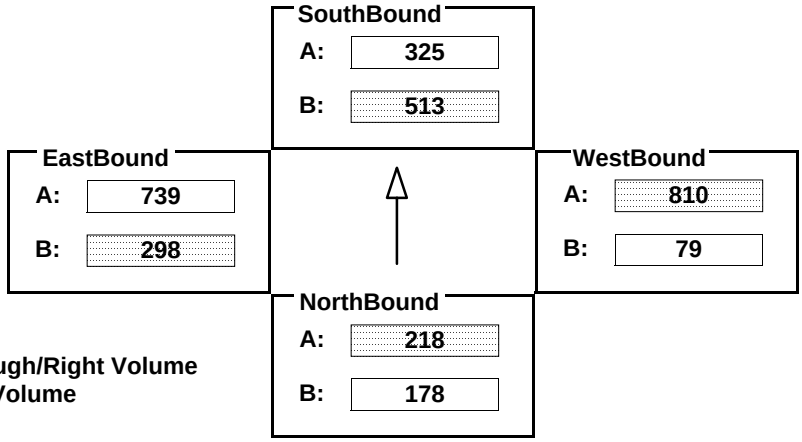
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	178	435	47	513	325	142	79	2097	334	541	2086	132
AMBIENT												
RELATED												
PROJECT												
TOTAL	178	435	47	513	325	142	79	2097	334	541	2086	132

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	1	0	0	1	1	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	1	0	0	2	0	2	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	OLA	Split	Auto	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{218 + 513 + 810 + 298}{*1375} = 1.267$$

LOS = F

1.267-0.03* = 1.237 LOS F
*ATCS Benefit

Developed by Chun Wong, 12/94

EXISTAM

May 25, 2011 ,Wednesday 12:36:15 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: National Boulevard W/E: Venice Boulevard I/S No: 9

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

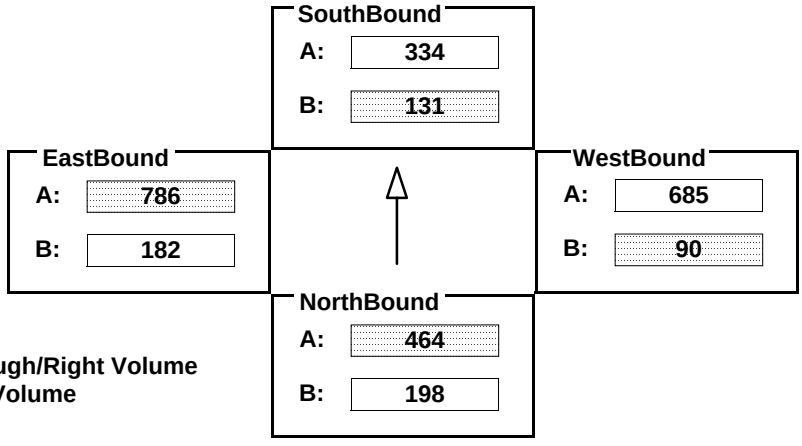
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	198	906	22	131	567	101	90	1939	116	182	2069	288
AMBIENT												
RELATED												
PROJECT												
TOTAL	198	906	22	131	567	101	90	1939	116	182	2069	288

LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	2	0	1	0	0	1	0	2	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	Auto	Perm	Auto	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{464 + 131 + 90 + 786}{*1375} = 1.000$$

LOS = E

1.000-0.03* = 0.970 LOS E
*ATCS Benefit

Developed by Chun Wong, 12/94

EXISTAM

May 25, 2011 ,Wednesday 12:36:15 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Helms Avenue W/E: Venice Boulevard I/S No: 10

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

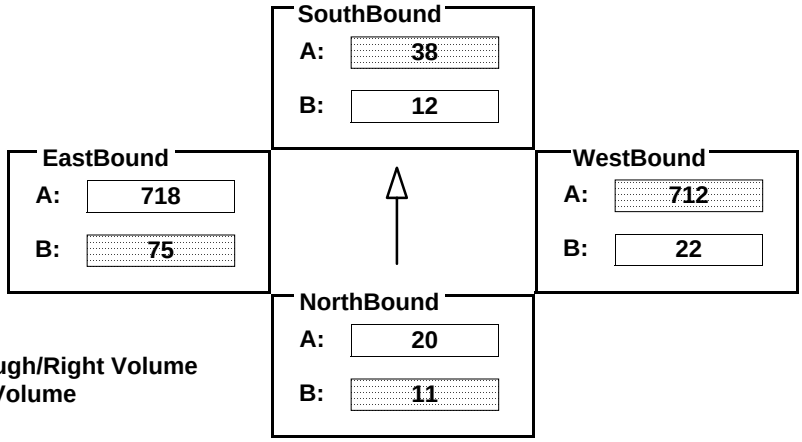
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	11	9	4	12	2	24	22	2114	22	75	2133	21
AMBIENT												
RELATED												
PROJECT												
TOTAL	11	9	4	12	2	24	22	2114	22	75	2133	21

	NORTHBOUND							SOUTHBOUND						
LANE	0	1	0	0	0	1	0	0	0	0	1	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{11 + 38 + 712 + 75}{*1500} = 0.487$$

LOS = A

0.487-0.03* = 0.457 LOS A
*ATCS Benefit

Developed by Chun Wong, 12/94

EXISTAM

May 25, 2011 ,Wednesday 12:36:15 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Cattaraugus Avenue W/E: Venice Boulevard I/S No: 11

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

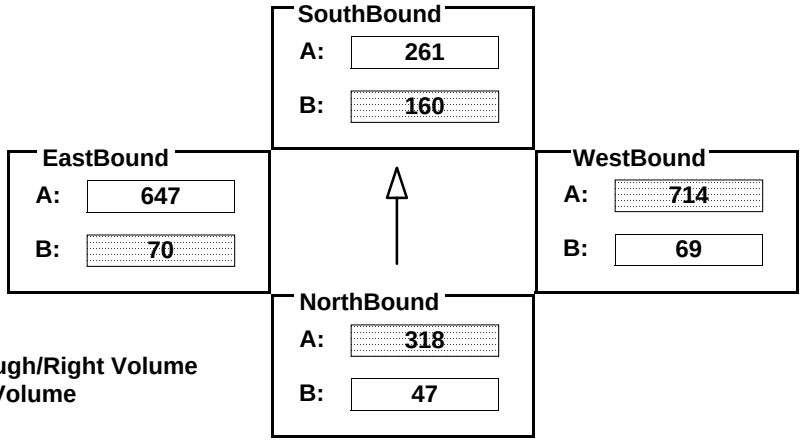
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	47	245	26	160	84	17	69	2040	101	70	1930	11
AMBIENT												
RELATED												
PROJECT												
TOTAL	47	245	26	160	84	17	69	2040	101	70	1930	11

LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	2	0	1	0	0	1	0	2	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{318 + 160 + 714 + 70}{*1500} = 0.771$$

LOS = C

Developed by Chun Wong, 12/94

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Venice Boulevard I/S No: 12

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

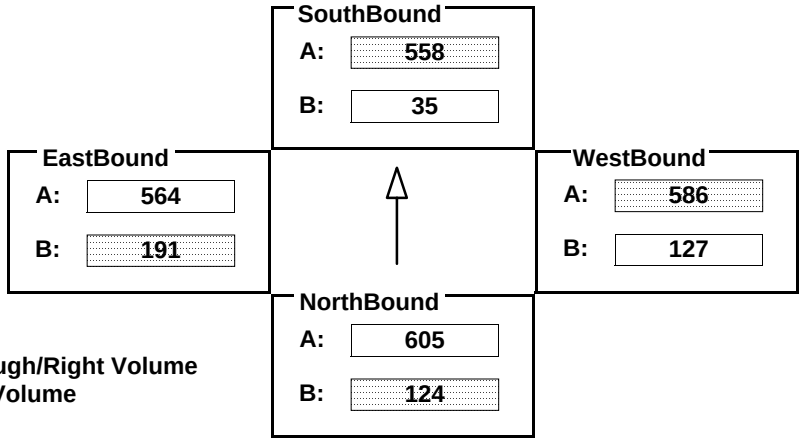
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	124	1771	45	35	1325	348	127	1758	15	348	1691	157
AMBIENT												
RELATED												
PROJECT												
TOTAL	124	1771	45	35	1325	348	127	1758	15	348	1691	157

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	3	0	0	1	0	2	0	3	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{124 + 558 + 586 + 191}{*1375} = 0.991$$

LOS = E

0.991-0.03* = 0.961 LOS E
*ATCS Benefit

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EXISTAM

May 25, 2011 ,Wednesday 12:36:15 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Hughes Avenue/Duquesne Avenue W/E: Washington Boulevard I/S No: 13

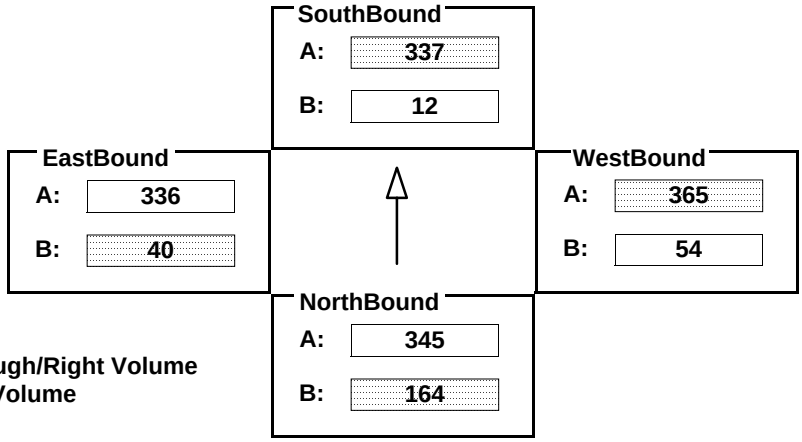
AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	164	306	39	12	290	47	54	684	45	40	494	178
AMBIENT												
RELATED												
PROJECT												
TOTAL	164	306	39	12	290	47	54	684	45	40	494	178
LANE	1	0	0	0	1	0	0	1	0	0	0	1	0	0	1	0	1	0	1	0	1	0	0	1	0	1	0	1	0	0
	Phasing		RTOR		Phasing		RTOR		Phasing		RTOR		Phasing		RTOR	
SIGNAL	Perm		Auto		Perm		Auto		Perm		Auto		Perm		Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{164 + 337 + 365 + 40}{*1500} = 0.534$$

LOS = A

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CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Duquesne Avenue W/E: Culver Boulevard I/S No: 14

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

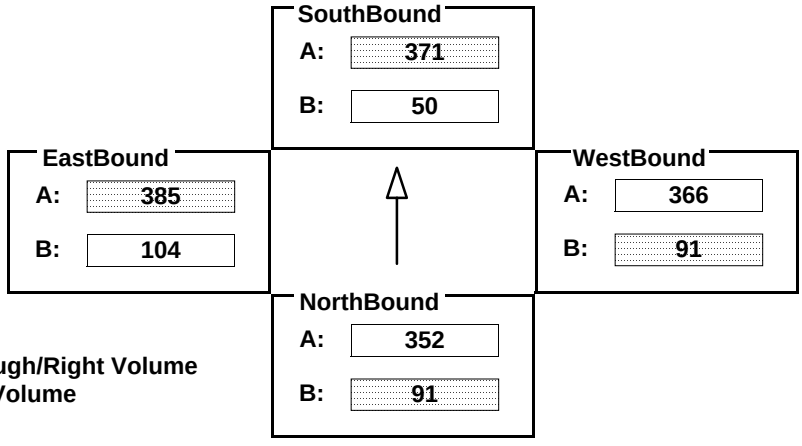
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	91	352	100	50	371	68	91	677	55	104	734	36
AMBIENT												
RELATED												
PROJECT												
TOTAL	91	352	100	50	371	68	91	677	55	104	734	36

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	0	1	0	1	0	1	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{91 + 371 + 91 + 385}{*1375} = 0.612$$

LOS = B

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EXISTAM

May 25, 2011 ,Wednesday 12:36:15 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Washington Bl/Irving Pl W/E: Culver Boulevard I/S No: 15

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

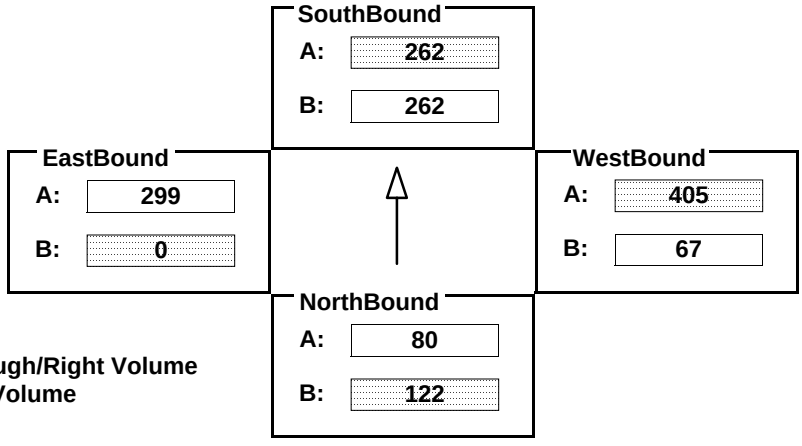
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	122	0	114	501	0	23	67	742	736	0	854	42
AMBIENT									-262			
RELATED												
PROJECT												
TOTAL	122	0	114	501	0	23	67	742	474	0	854	42

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	0	0	0	1	0	1	0	0	0	0	0	1

	WESTBOUND							EASTBOUND						
LANE	1	0	1	0	1	1	0	0	0	2	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	Split	Auto	Prot-Fix	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{122 + 262 + 405 + 0}{*1375} = 0.504$$

LOS = A

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EXISTAM

May 25, 2011 ,Wednesday 12:36:15 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Main Street W/E: Culver Boulevard I/S No: 16

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

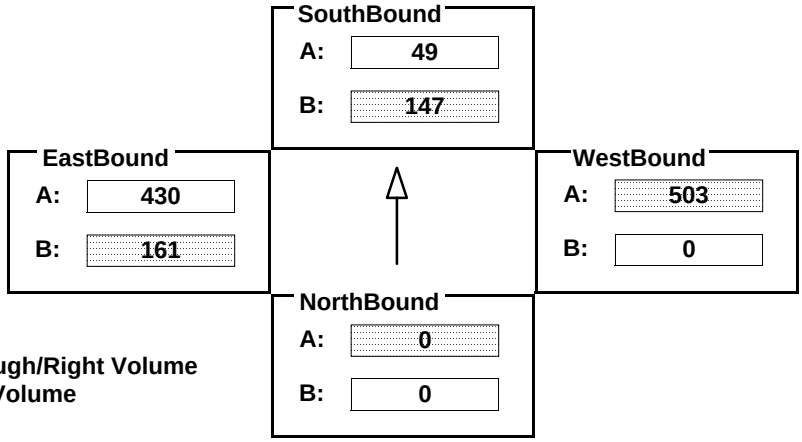
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	147	0	130	0	1353	157	161	1290	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	147	0	130	0	1353	157	161	1290	0

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	0	0	0	0	1	0	0	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	0	0	2	0	1	0	0	1	0	3	0	0	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	<none>	<none>	Split	Auto	Perm	Auto	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 147 + 503 + 161}{*1425} = 0.499$$

LOS = A

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EXISTAM

May 25, 2011 ,Wednesday 12:36:15 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Culver Boulevard W/E: ashington Boulevard/Canfield Avenu I/S No: 17

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

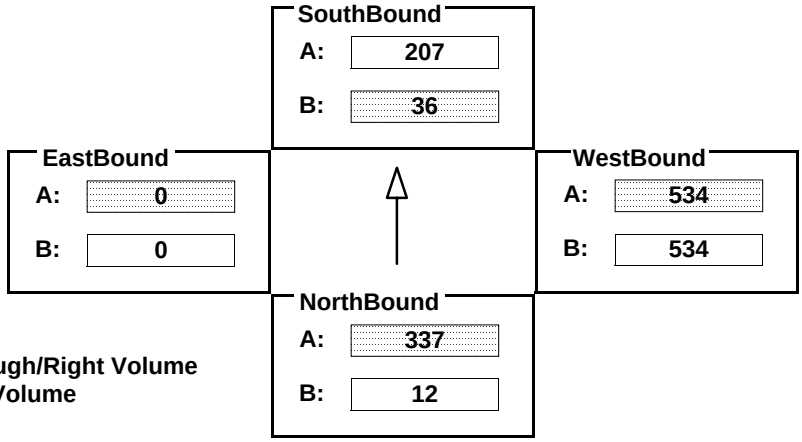
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	12	674	757	36	409	4	1033	35	73	0	0	6
AMBIENT												
RELATED												
PROJECT												
TOTAL	12	674	757	36	409	4	1033	35	73	0	0	6

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	2	0	1	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	1	0	0	0	1	0	0	0	0	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	OLA	Prot-Fix	Auto	Split	Auto	<none>	OLA

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{337 + 36 + 534 + 0}{*1425} = 0.566$$

LOS = A

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EXISTAM

May 25, 2011 ,Wednesday 12:36:15 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard/Higuera Street W/E: Washington Boulevard I/S No: 18

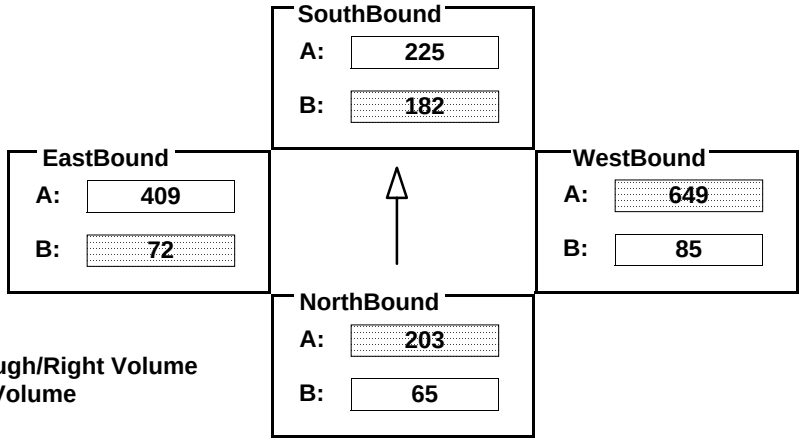
AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	65	338	68	182	225	65	85	1088	209	72	758	60
AMBIENT												
RELATED												
PROJECT												
TOTAL	65	338	68	182	225	65	85	1088	209	72	758	60
LANE	1 0	1 0	1 0	1 0	0 1	0	1 0	1 0	1 0	0	1 0	1 0	1 0	1 0	0	1 0	1 0	1 0	1 0	0
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR				
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Perm	Auto	Perm	Auto				

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{203 + 182 + 649 + 72}{*1425} = 0.706$$

LOS = C

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EXISTAM

May 25, 2011 ,Wednesday 12:36:15 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Landmark Street W/E: Washington Boulevard I/S No: 19

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

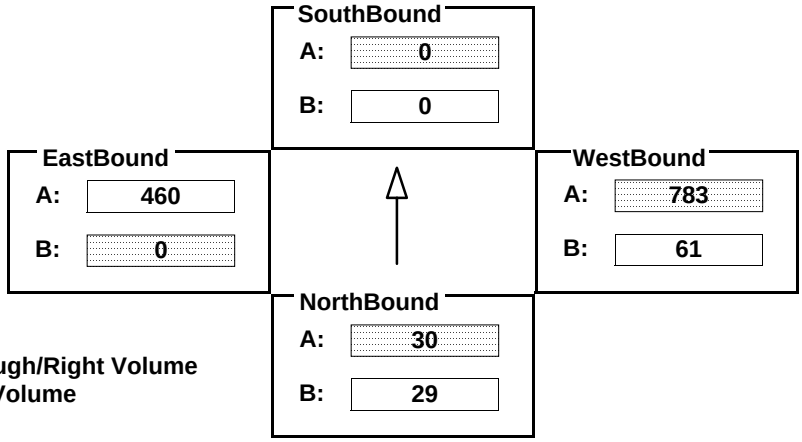
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	29	0	30	0	0	0	61	1566	0	0	842	78
AMBIENT												
RELATED												
PROJECT												
TOTAL	29	0	30	0	0	0	61	1566	0	0	842	78

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	0	0	0	1	0	0	0	0	0	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	0	0	0	0	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{30 + 0 + 783 + 0}{*1500} = 0.472$$

LOS = A

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EXISTAM

May 25, 2011 ,Wednesday 12:36:15 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: National Boulevard W/E: Washington Boulevard I/S No: 20

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

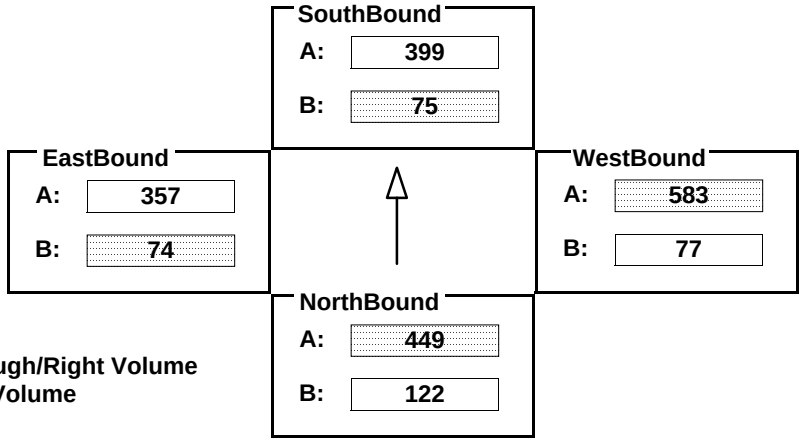
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	221	792	105	137	737	61	77	1166	313	74	714	110
AMBIENT												
RELATED												
PROJECT												
TOTAL	221	792	105	137	737	61	77	1166	313	74	714	110

LANE	2	0	1	0	1	0	0	2	0	1	0	1	0	0	1	0	2	0	0	1	0	1	0	2	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{449 + 75 + 583 + 74}{*1375} = 0.789$$

LOS = C

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```
Default Scenario           Wed May 25, 2011 12:48:43                 Page 3-1
------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #21 WESLEY AV/WASHINGTON BL [EXISTING AM]
******************************************************************************
Average Delay (sec/veh):      0.0   Worst Case Level Of Service:       B[ 11.5]
******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  0  0  1    0  0  0  0  0    0  0  1  1  0    1  0  2  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     1     0    0     0     0  922     4     3 1571     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0     1     0    0     0     0  922     4     3 1571     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     0    0     1     0    0     0     0  922     4     3 1571     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Final Vol.:     0    0     1     0    0     0     0  922     4     3 1571     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:xxxxx xxxx   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx   463  xxxx xxxx xxxxx  xxxx xxxx xxxxx   926 xxxx xxxxx
Potent Cap.: xxxx xxxx   551  xxxx xxxx xxxxx  xxxx xxxx xxxxx   746 xxxx xxxxx
Move Cap.:   xxxx xxxx   551  xxxx xxxx xxxxx  xxxx xxxx xxxxx   746 xxxx xxxxx
Volume/Cap:  xxxx xxxx  0.00  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.00 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Queue:      xxxxx xxxx   0.0 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.0 xxxx xxxxx
Stopped Del:xxxxx xxxx  11.5 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   9.8 xxxx xxxxx
LOS by Move:   *    *     B     *    *     *     *    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:      11.5           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:        B              *                *                *
```

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EXISTAM

May 25, 2011 ,Wednesday 12:36:15 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Helms Avenue W/E: Washington Boulevard I/S No: 22

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

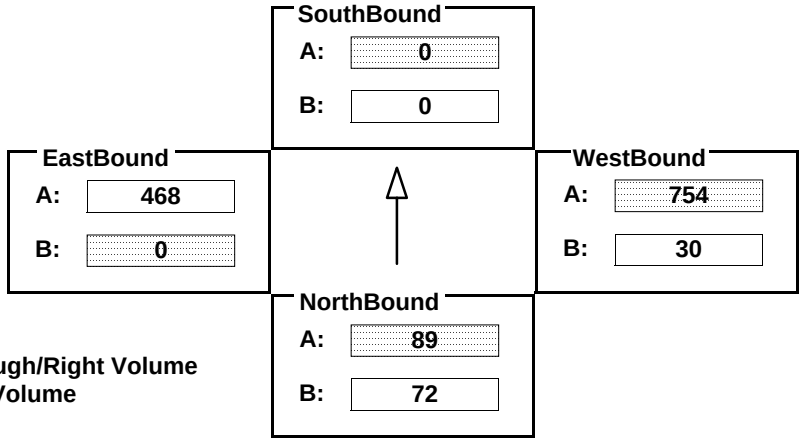
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	72	0	17	0	0	0	30	1508	0	0	898	38
AMBIENT												
RELATED												
PROJECT												
TOTAL	72	0	17	0	0	0	30	1508	0	0	898	38

LANE	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	1	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	<none>	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{89 + 0 + 754 + 0}{*1500} = 0.492$$

LOS = A

Developed by Chun Wong, 12/94

```
Default Scenario           Wed May 25, 2011 12:48:43                Page 5-1
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
********************************************************************************
Intersection #23 CATTARAUGUS AV/WASHINGTON AV [EXISTING AM]
********************************************************************************
Average Delay (sec/veh):     86.5   Worst Case Level Of Service:       F[1767.2]
********************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  1  0    0  1  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       9    5     3    86    6    45    22  812     6     3 1518   320
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    9    5     3    86    6    45    22  812     6     3 1518   320
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     9    5     3    86    6    45    22  812     6     3 1518   320
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Final Vol.:     9    5     3    86    6    45    22  812     6     3 1518   320
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  7.5  6.5   6.9   7.5  6.5   6.9   4.1 xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3   3.5  4.0   3.3   2.2 xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1627 2703   409  2137 2546   919  1838 xxxx xxxxx   818 xxxx xxxxx
Potent Cap.:   69   22   597    28   27   277   336 xxxx xxxxx   819 xxxx xxxxx
Move Cap.:     45   20   597    22   25   277   336 xxxx xxxxx   819 xxxx xxxxx
Volume/Cap:  0.20 0.25  0.01  3.96 0.24  0.16  0.07 xxxx  xxxx  0.00 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Queue:      xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.2 xxxx xxxxx   0.0 xxxx xxxxx
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  16.5 xxxx xxxxx   9.4 xxxx xxxxx
LOS by Move:   *    *     *     *    *     *     C    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx   37 xxxxx  xxxx   31 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  1.6 xxxxx xxxxx 16.3 xxxxx   0.2 xxxx xxxxx   0.0 xxxx xxxxx
Shrd StpDel:xxxxx  165 xxxxx xxxxx 1767 xxxxx  16.5 xxxx xxxxx   9.4 xxxx xxxxx
Shared LOS:    *    F     *     *    F     *     C    *     *     A    *     *
ApproachDel:     165.1           1767.2           xxxxxx           xxxxxx
ApproachLOS:       F               F                *                *
```

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EXISTAM

May 25, 2011 ,Wednesday 12:36:15 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Washington Boulevard I/S No: 24

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

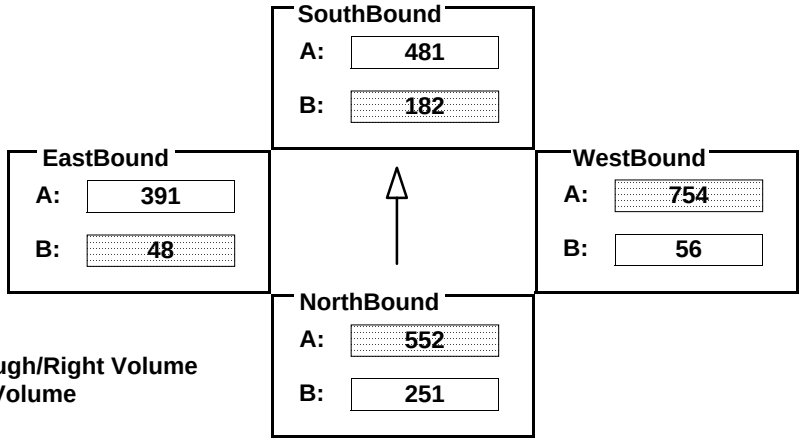
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	251	1637	20	182	1416	28	56	1508	245	48	782	106
AMBIENT												
RELATED												
PROJECT												
TOTAL	251	1637	20	182	1416	28	56	1508	245	48	782	106

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	0	1	0	1	0	2	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{552 + 182 + 754 + 48}{*1375} = 1.047$$

LOS = F

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CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Fairfax Avenue I/S No: 25

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

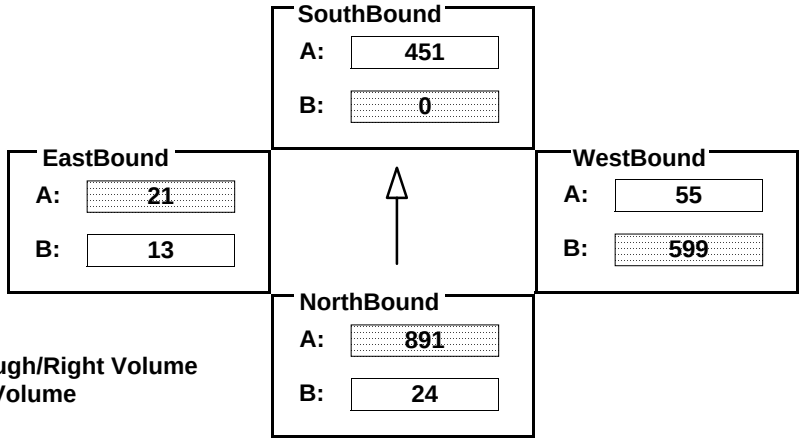
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	24	1781	927	0	1331	21	1089	25	30	13	0	8
AMBIENT												
RELATED												
PROJECT												
TOTAL	24	1781	927	0	1331	21	1089	25	30	13	0	8

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	2	0	0	0	2	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	2	0	0	0	1	0	0	0	0	0	1	0	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Free	Perm	Auto	Split	Auto	Split	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{891 + 0 + 599 + 21}{*1425} = 0.990$$

LOS = E

0.990-0.03* = 0.960 LOS E
*ATCS Benefit

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EXISTAM

May 25, 2011 ,Wednesday 12:36:15 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Wesley Street W/E: National Boulevard I/S No: 26

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

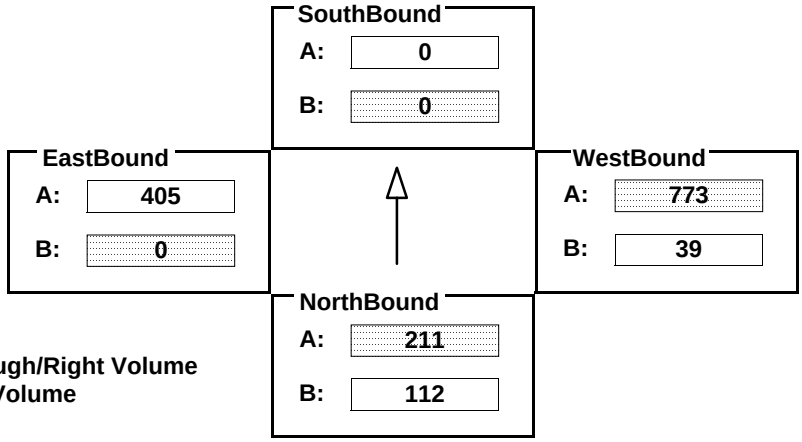
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	112	0	99	0	0	0	39	1546	0	0	809	83
AMBIENT												
RELATED												
PROJECT												
TOTAL	112	0	99	0	0	0	39	1546	0	0	809	83

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	0	0	0	1	0	0	0	0	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	0	0	0	0	0	2	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{211 + 0 + 773 + 0}{*1500} = 0.586$$

LOS = A

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EXISTAM

May 25, 2011 ,Wednesday 12:36:15 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Hayden Avenue W/E: National Boulevard I/S No: 27

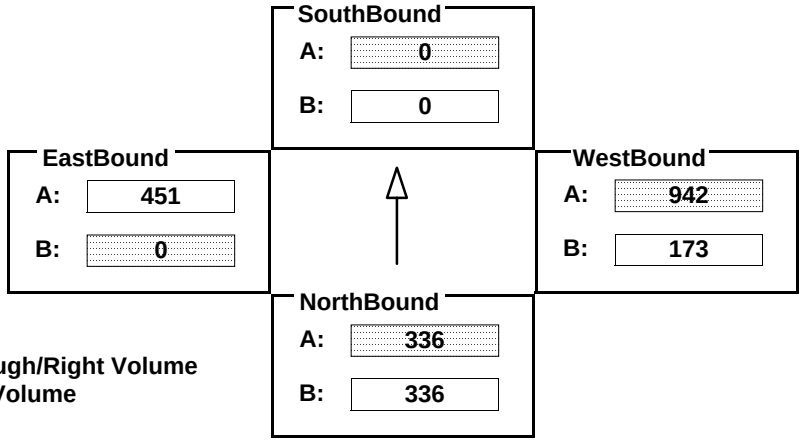
AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	608	0	63	0	0	0	173	942	0	0	675	227
AMBIENT												
RELATED												
PROJECT												
TOTAL	608	0	63	0	0	0	173	942	0	0	675	227
LANE	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0	0
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	<none>	Prot-Fix	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{336 + 0 + 942 + 0}{*1425} = 0.827$$

LOS = D

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CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Jefferson Boulevard W/E: National Boulevard I/S No: 28

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

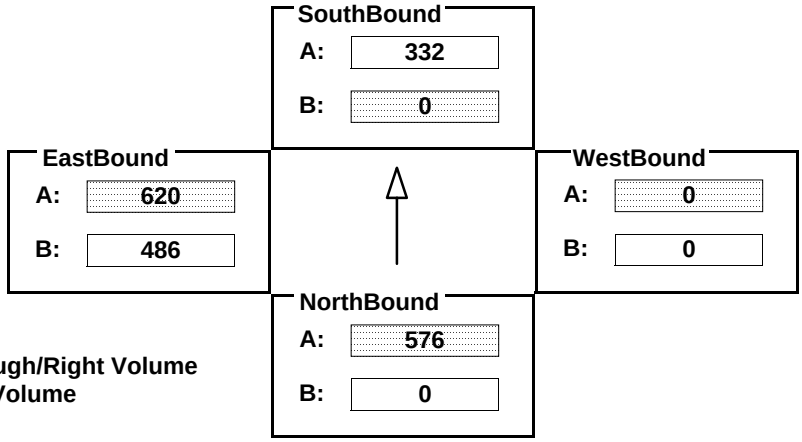
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	576	0	0	664	1159	0	0	0	486	0	134
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	576	0	0	664	1159	0	0	0	486	0	134

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	1	0	0	0	0	0	0	2	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	0	0	0	0	0	0	0	0	0	0	0	0	0	1

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Free	<none>	<none>	Split	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{576 + 0 + 0 + 620}{*1500} = 0.727$$

LOS = C

0.727-0.03* = 0.697 LOS B
*ATCS Benefit

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CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Jefferson Boulevard I/S No: 29

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

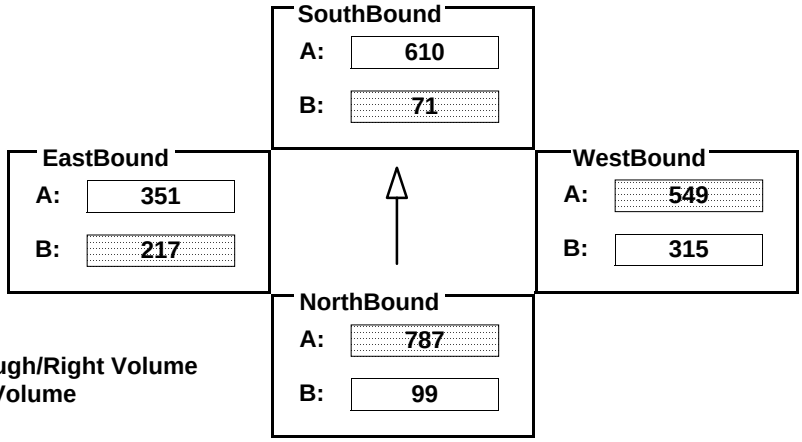
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	99	2249	113	71	1829	580	572	1098	118	394	592	109
AMBIENT												
RELATED												
PROJECT												
TOTAL	99	2249	113	71	1829	580	572	1098	118	394	592	109

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	1	0	0	1	0	3	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	2	0	2	0	0	1	0	2	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	OLA	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{787 + 71 + 549 + 217}{*1375} = 1.111$$

LOS = F

1.111-0.03* = 1.081 LOS F
*ATCS Benefit

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EXISTAM

May 25, 2011 ,Wednesday 12:36:15 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Jefferson Boulevard W/E: Higuera Street/Rodeo Road I/S No: 30

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

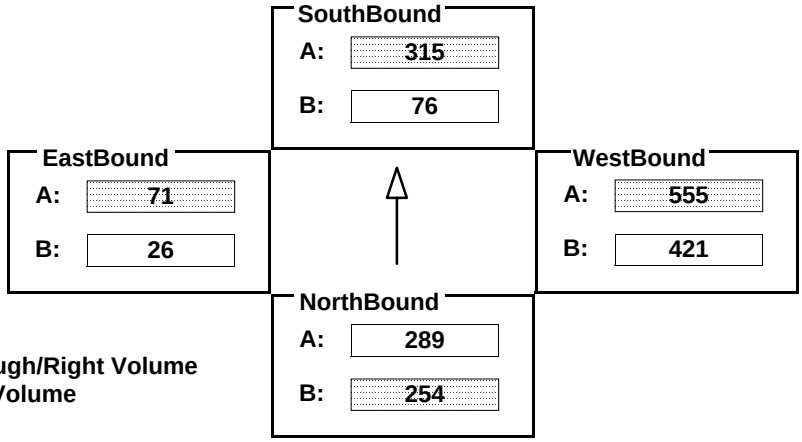
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	254	578	718	76	630	76	766	555	57	26	141	41
AMBIENT												
RELATED												
PROJECT												
TOTAL	254	578	718	76	630	76	766	555	57	26	141	41

LANE	1	0	2	0	0	1	0	1	0	2	0	0	1	0	2	0	1	0	0	1	0	1	0	2	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Free	Perm	Auto	Split	Auto	Split	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{254 + 315 + 555 + 71}{*1425} = 0.769$$

LOS = C

0.769-0.03* = 0.739 LOS C
*ATCS Benefit

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EXISTAM

May 25, 2011 ,Wednesday 12:36:15 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Rodeo Road I/S No: 31

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

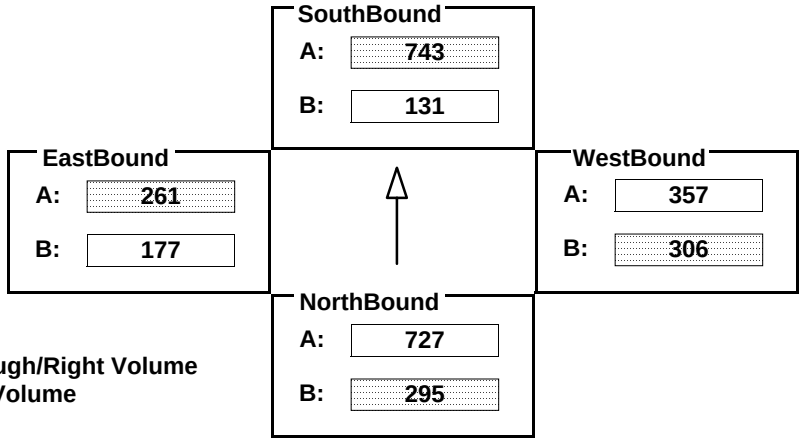
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	537	2090	92	239	2046	183	306	714	313	177	521	201
AMBIENT												
RELATED												
PROJECT												
TOTAL	537	2090	92	239	2046	183	306	714	313	177	521	201

	NORTHBOUND							SOUTHBOUND						
LANE	2	0	2	0	1	0	0	2	0	2	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	0	1	0	1	0	2	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Prot-Var	OLA	Prot-Var	OLA

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{295 + 743 + 306 + 261}{*1375} = 1.097$$

LOS = F

1.097-0.03* = 1.067 LOS F
*ATCS Benefit

Developed by Chun Wong, 12/94

```
Default Scenario           Wed May 25, 2011 12:48:43                 Page 7-1
------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
******************************************************************************
Intersection #32 BRADDOCK DR/DUQUESNE AV [EXISTING AM]
******************************************************************************
Cycle (sec):        100               Critical Vol./Cap. (X):        1.407
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):       140.4
Optimal Cycle:        0               Level Of Service:                  F
******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      87  193   135    27  311    32    42  423    37    42  486    38
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   87  193   135    27  311    32    42  423    37    42  486    38
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    87  193   135    27  311    32    42  423    37    42  486    38
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   87  193   135    27  311    32    42  423    37    42  486    38
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Final Vol.:    87  193   135    27  311    32    42  423    37    42  486    38
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.21 0.46  0.33  0.07 0.84  0.09  0.08 0.85  0.07  0.07 0.86  0.07
Final Sat.:    86  190   133    29  333    34    34  339    30    30  345    27
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     1.02 1.02  1.02  0.93 0.93  0.93  1.25 1.25  1.25  1.41 1.41  1.41
Crit Moves:       ****             ****        ****                   ****
Delay/Veh:   79.2 79.2  79.2  60.8 60.8  60.8 157.7  158 157.7 221.9  222 221.9
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  79.2 79.2  79.2  60.8 60.8  60.8 157.7  158 157.7 221.9  222 221.9
LOS by Move:   F    F     F     F    F     F     F    F     F     F    F     F
ApproachDel:      79.2             60.8            157.7            221.9
Delay Adj:        1.00             1.00             1.00             1.00
ApprAdjDel:       79.2             60.8            157.7            221.9
LOS by Appr:        F                F                F                F
******************************************************************************
```

Traffix 7.6.0715 (c) 2003 Dowling Assoc. Licensed to RAJU ASSOC., PASADENA

```
Default Scenario           Wed May 25, 2011 12:48:43                 Page 9-1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
*******************************************************************************
Intersection #33 LUCERNE AV/DUQUESNE AV [EXISTING AM]
*******************************************************************************
Cycle (sec):        100               Critical Vol./Cap. (X):        0.847
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):        23.7
Optimal Cycle:        0               Level Of Service:                  C
*******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0   175    0    61    89  416     0     0  517   329
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0     0   175    0    61    89  416     0     0  517   329
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     0    0     0   175    0    61    89  416     0     0  517   329
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0   175    0    61    89  416     0     0  517   329
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Final Vol.:     0    0     0   175    0    61    89  416     0     0  517   329
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.00 0.00  0.00  0.74 0.00  0.26  0.18 0.82  0.00  0.00 1.00  1.00
Final Sat.:     0    0     0   397    0   138   111  519     0     0  610   692
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     xxxx xxxx  xxxx  0.44 xxxx  0.44  0.80 0.80  xxxx  xxxx 0.85  0.48
Crit Moves:                               ****  ****                 ****
Delay/Veh:    0.0  0.0   0.0  14.0  0.0  14.0  26.9 26.9   0.0   0.0 32.2  12.4
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0  0.0   0.0  14.0  0.0  14.0  26.9 26.9   0.0   0.0 32.2  12.4
LOS by Move:   *    *     *     B    *     B     D    D     *     *    D     B
ApproachDel:    xxxxxx            14.0            26.9            24.5
Delay Adj:       xxxxx            1.00            1.00            1.00
ApprAdjDel:     xxxxxx            14.0            26.9            24.5
LOS by Appr:         *               B               D               C
*******************************************************************************
```

Traffix 7.6.0715 (c) 2003 Dowling Assoc. Licensed to RAJU ASSOC., PASADENA

EXISTAM

May 25, 2011 ,Wednesday 12:36:15 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Jefferson Boulevard W/E: Duquesne Avenue I/S No: 34

AM/PM: AM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

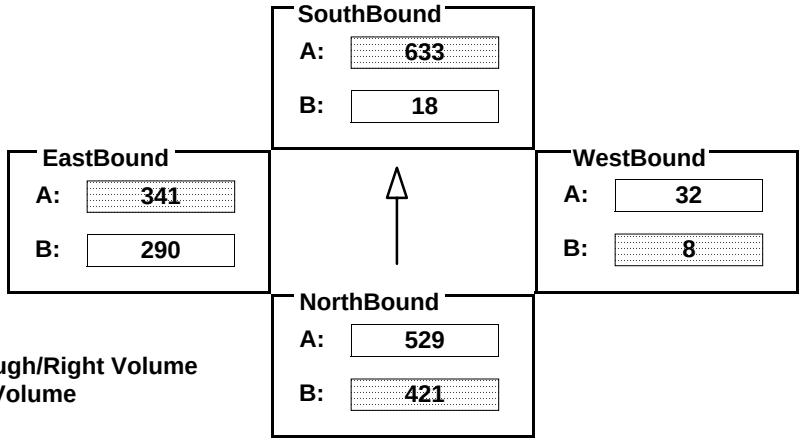
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	421	1031	27	18	1265	411	8	32	6	290	31	310
AMBIENT												
RELATED												
PROJECT												
TOTAL	421	1031	27	18	1265	411	8	32	6	290	31	310

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	1	0	0	1	0	2	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	1	0	1	0	0	1	0	1	0	0	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Perm	OLA	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{421 + 633 + 8 + 341}{*1375} = 0.950$$

LOS = E

Developed by Chun Wong, 12/94

Existing (2011) Conditions

PM Peak Hour

EXISTPM

May 25, 2011 ,Wednesday 12:45:39 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: Cattaragus Avenue I/S No: 1

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

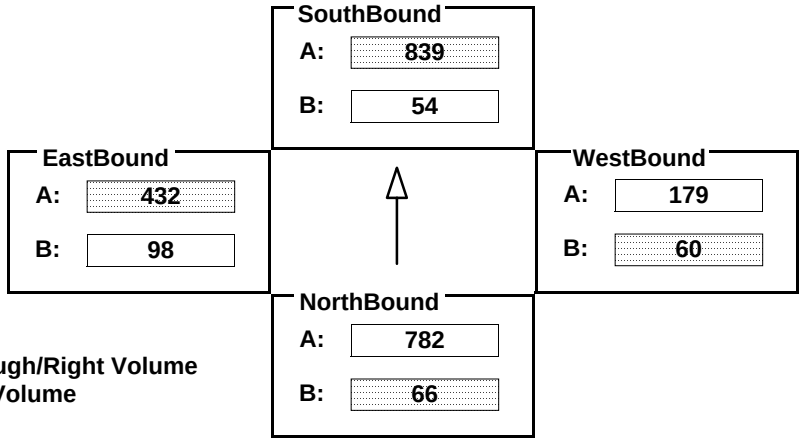
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	66	1549	15	54	1614	63	60	78	41	98	223	111
AMBIENT												
RELATED												
PROJECT												
TOTAL	66	1549	15	54	1614	63	60	78	41	98	223	111

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{66 + 839 + 60 + 432}{*1500} = 0.861$$

LOS = D

0.861-0.03* = 0.831 LOS D
*ATCS Benefit

Developed by Chun Wong, 12/94

EXISTPM

May 25, 2011 ,Wednesday 12:45:39 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: I-10 WB Off-Ramp/Kincardine Av I/S No: 2

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

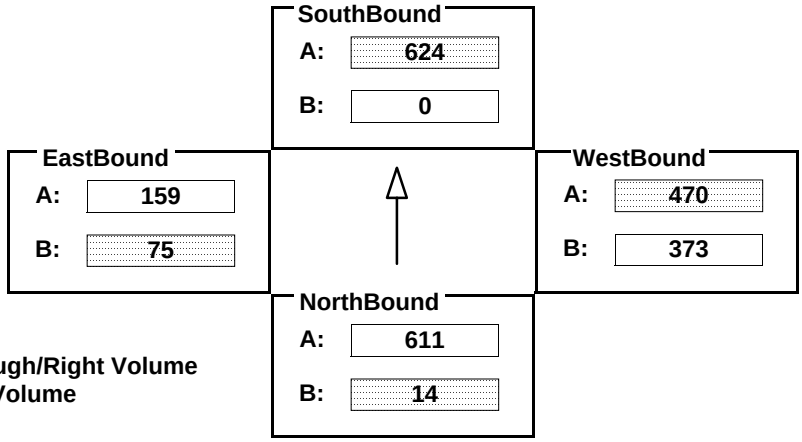
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	14	1222	0	0	1214	34	373	22	545	75	0	84
AMBIENT												
RELATED												
PROJECT												
TOTAL	14	1222	0	0	1214	34	373	22	545	75	0	84

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	0	0	0	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	0	0	0	1	0	1	0	0	0	0	0	0	0	1

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{14 + 624 + 470 + 75}{*1500} = 0.719$$

LOS = C

0.719-0.03* = 0.689 LOS B
*ATCS Benefit

Developed by Chun Wong, 12/94

EXISTPM

May 25, 2011 ,Wednesday 12:45:39 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: National Boulevard I/S No: 3

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

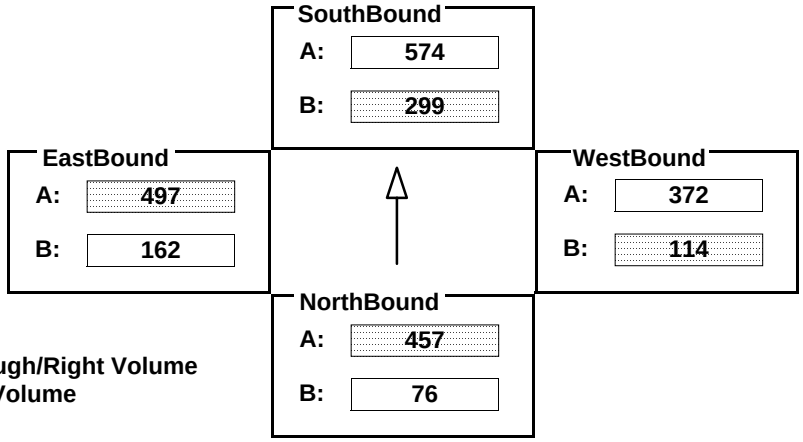
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	76	784	130	544	931	216	114	372	230	162	858	136
AMBIENT												
RELATED												
PROJECT												
TOTAL	76	784	130	544	931	216	114	372	230	162	858	136

LANE	1	0	1	0	1	0	0	2	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	Auto	Perm	OLA	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{457 + 299 + 114 + 497}{*1375} = 0.924$$

LOS = E

0.924-0.03* = 0.894 LOS D
*ATCS Benefit

Developed by Chun Wong, 12/94

EXISTPM

May 25, 2011 ,Wednesday 12:45:39 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: National Boulevard W/E: I-10 EB On-Ramp I/S No: 4

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

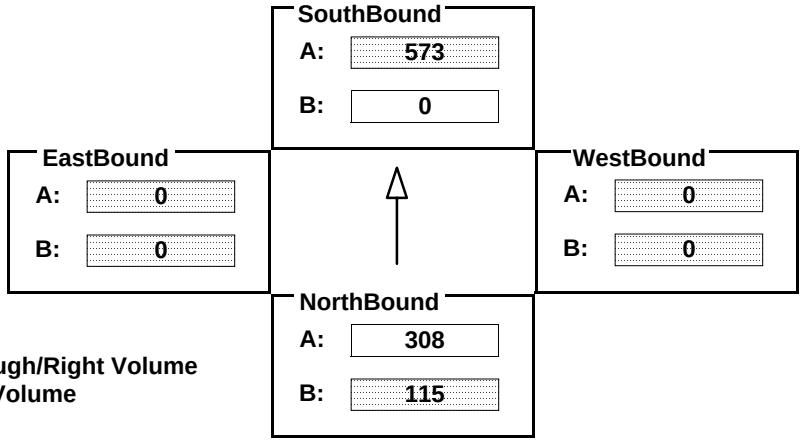
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	115	616	0	0	954	573	0	0	0	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	115	616	0	0	954	573	0	0	0	0	0	0

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	0	0	0	0	2	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Perm	Auto	<none>	<none>	<none>	<none>

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = +

$$V/C = \frac{115 + 573 + \quad + \quad}{*1500} = 0.389$$

LOS = A

0.389-0.03* = 0.359 LOS A
*ATCS Benefit

Developed by Chun Wong, 12/94

EXISTPM

May 25, 2011 ,Wednesday 12:45:39 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Hughes Avenue W/E: Venice Boulevard I/S No: 5

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

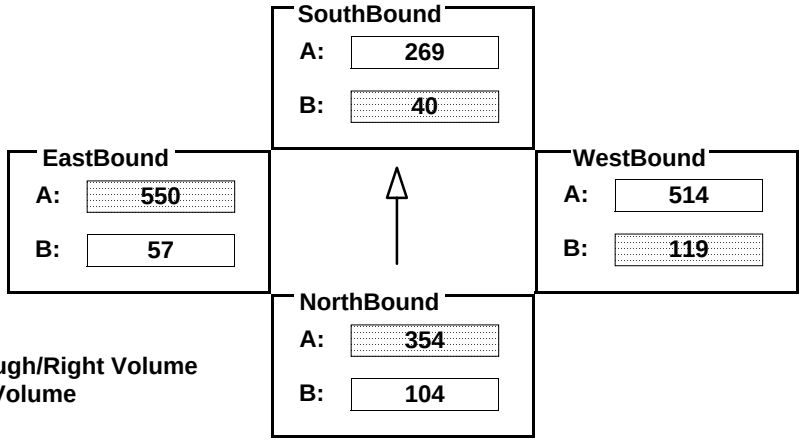
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	104	172	78	40	177	52	119	1543	44	57	1651	96
AMBIENT												
RELATED												
PROJECT												
TOTAL	104	172	78	40	177	52	119	1543	44	57	1651	96

LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	3	0	0	1	0	1	0	3	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{354 + 40 + 119 + 550}{*1500} = 0.639$$

LOS = B

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EXISTPM

May 25, 2011 ,Wednesday 12:45:39 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Bagley Avenue W/E: Venice Boulevard I/S No: 6

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

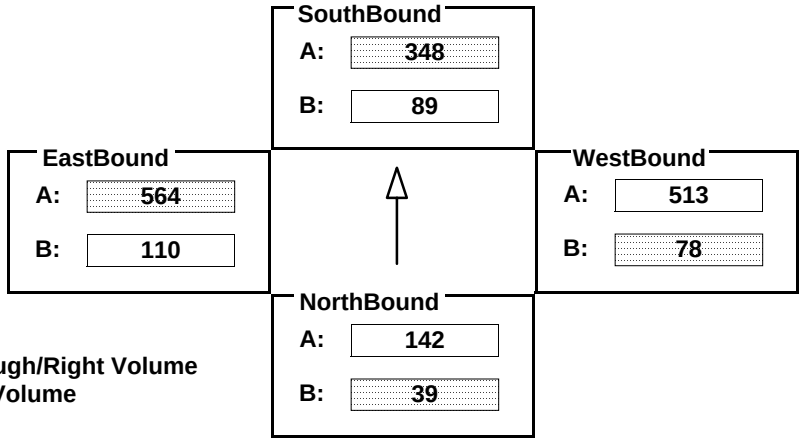
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	39	101	41	89	165	94	78	1538	70	110	1584	107
AMBIENT												
RELATED												
PROJECT												
TOTAL	39	101	41	89	165	94	78	1538	70	110	1584	107

LANE	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	3	0	0	1	0	1	0	2	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{39 + 348 + 78 + 564}{*1375} = 0.678$$

LOS = B

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CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Culver Boulevard W/E: Venice Boulevard I/S No: 7

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

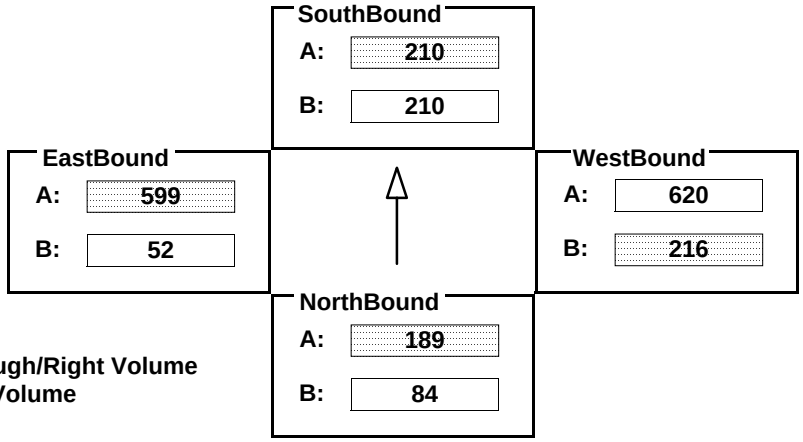
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	84	81	736	299	72	48	393	1653	208	52	1735	62
AMBIENT												
RELATED												
PROJECT												
TOTAL	84	81	736	299	72	48	393	1653	208	52	1735	62

LANE	1	0	1	0	0	2	0	1	0	0	1	0	0	0	2	0	2	0	1	0	0	1	0	2	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	OLA	Split	Auto	Prot-Fix	Auto	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{189 + 210 + 216 + 599}{*1375} = 0.813$$

LOS = D

0.813-0.03* = 0.783 LOS C
*ATCS Benefit

Developed by Chun Wong, 12/94

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: Venice Boulevard I/S No: 8

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

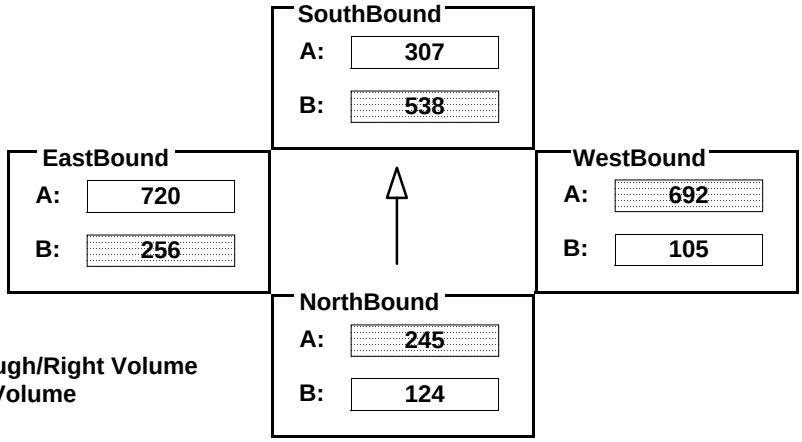
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	124	489	59	538	307	161	105	1951	125	465	2003	156
AMBIENT												
RELATED												
PROJECT												
TOTAL	124	489	59	538	307	161	105	1951	125	465	2003	156

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	1	0	0	1	1	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	1	0	0	2	0	2	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	OLA	Split	Auto	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{245 + 538 + 692 + 256}{*1375} = 1.189$$

LOS = F

1.189-0.03* = 1.159 LOS F
*ATCS Benefit

Developed by Chun Wong, 12/94

EXISTPM

May 25, 2011 ,Wednesday 12:45:39 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: National Boulevard W/E: Venice Boulevard I/S No: 9

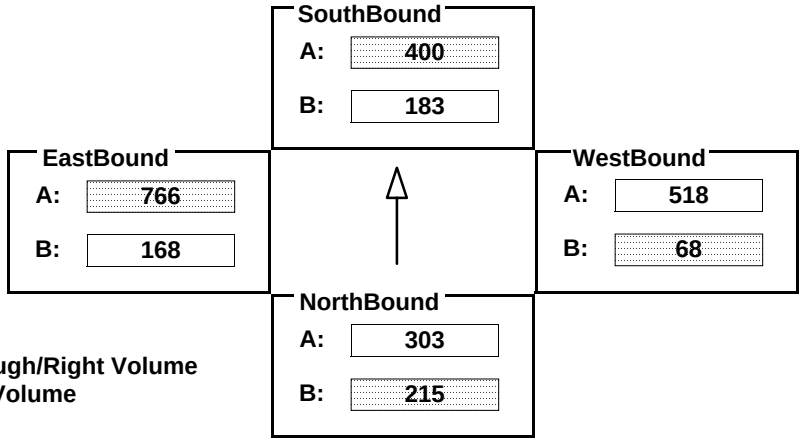
AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	215	507	99	183	702	98	68	1494	60	168	1991	307
AMBIENT												
RELATED												
PROJECT												
TOTAL	215	507	99	183	702	98	68	1494	60	168	1991	307
LANE	1 0 1 0 1 0 0			1 0 1 0 1 0 0			1 0 2 0 1 0 0			1 0 2 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Prot-Fix	Auto		Perm	Auto		Prot-Fix	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{215 + 400 + 68 + 766}{*1375} = 0.984$$

LOS = E

0.984-0.03* = 0.954 LOS E
*ATCS Benefit

Developed by Chun Wong, 12/94

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Helms Avenue W/E: Venice Boulevard I/S No: 10

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

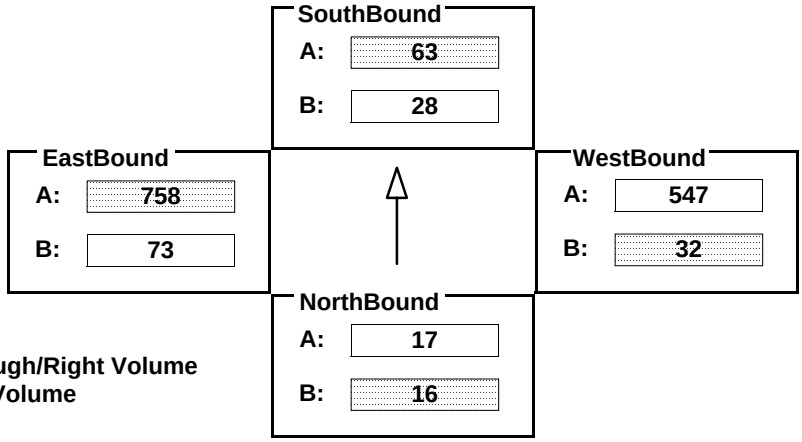
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	16	1	9	28	9	26	32	1634	8	73	2241	33
AMBIENT												
RELATED												
PROJECT												
TOTAL	16	1	9	28	9	26	32	1634	8	73	2241	33

LANE	0	1	0	0	0	1	0	0	0	0	1	0	0	0	1	0	2	0	1	0	0	1	0	2	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{16 + 63 + 32 + 758}{*1500} = 0.509$$

LOS = A

0.509-0.03* = 0.479 LOS A
*ATCS Benefit

Developed by Chun Wong, 12/94

EXISTPM

May 25, 2011 ,Wednesday 12:45:39 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Cattaraugus Avenue W/E: Venice Boulevard I/S No: 11

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

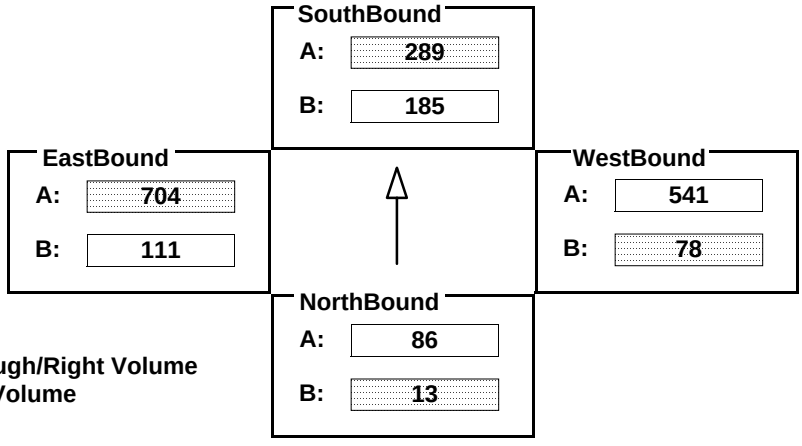
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	13	62	11	185	73	31	78	1547	76	111	2099	13
AMBIENT												
RELATED												
PROJECT												
TOTAL	13	62	11	185	73	31	78	1547	76	111	2099	13

LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	2	0	1	0	0	1	0	2	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{13 + 289 + 78 + 704}{*1500} = 0.653$$

LOS = B

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CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Venice Boulevard I/S No: 12

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

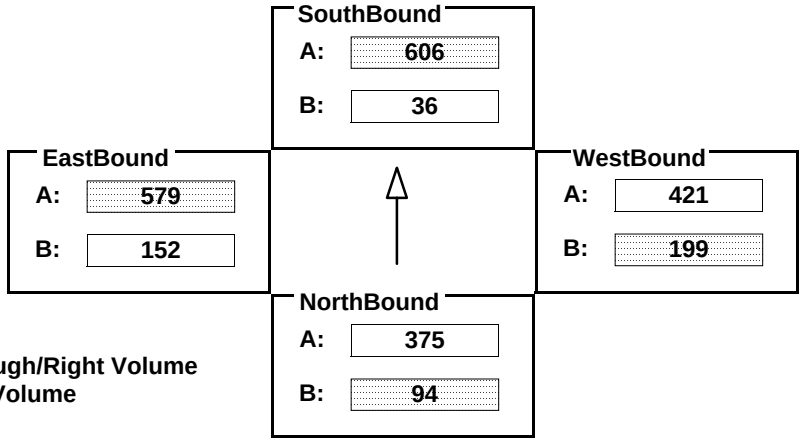
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	94	1104	20	36	1513	306	199	1263	34	277	1738	237
AMBIENT												
RELATED												
PROJECT												
TOTAL	94	1104	20	36	1513	306	199	1263	34	277	1738	237

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	3	0	0	1	0	2	0	3	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{94 + 606 + 199 + 579}{*1375} = 1.005$$

LOS = F

1.005-0.03* = 0.975 LOS E
*ATCS Benefit

Developed by Chun Wong, 12/94

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Hughes Avenue/Duquesne Avenue W/E: Washington Boulevard I/S No: 13

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

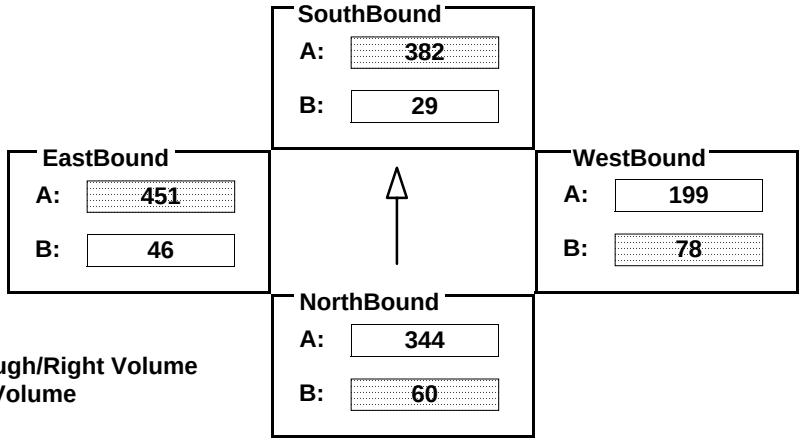
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	60	324	20	29	322	60	78	360	37	46	671	231
AMBIENT												
RELATED												
PROJECT												
TOTAL	60	324	20	29	322	60	78	360	37	46	671	231

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	0	0	1	0	0	1	0	0	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{60 + 382 + 78 + 451}{*1500} = 0.577$$

LOS = A

Developed by Chun Wong, 12/94

EXISTPM

May 25, 2011 ,Wednesday 12:45:39 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Duquesne Avenue W/E: Culver Boulevard I/S No: 14

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

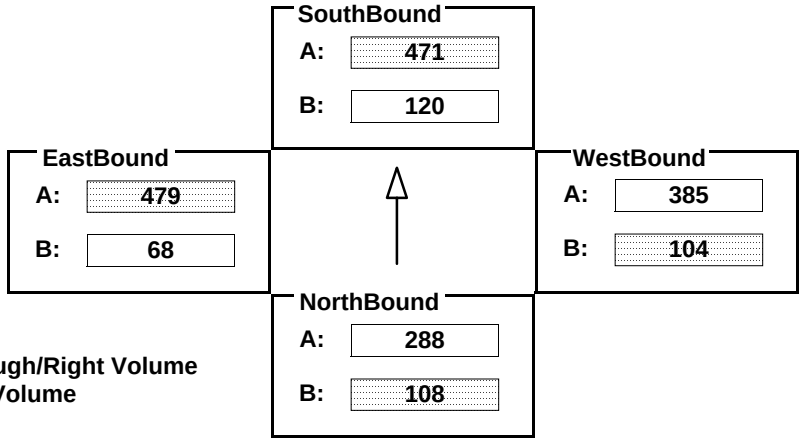
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	108	288	148	120	471	73	104	748	22	68	870	87
AMBIENT												
RELATED												
PROJECT												
TOTAL	108	288	148	120	471	73	104	748	22	68	870	87

LANE	1	0	1	0	0	1	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	1	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{108 + 471 + 104 + 479}{*1375} = 0.775$$

LOS = C

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EXISTPM

May 25, 2011 ,Wednesday 12:45:39 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Washington Bl/Irving Pl W/E: Culver Boulevard I/S No: 15

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

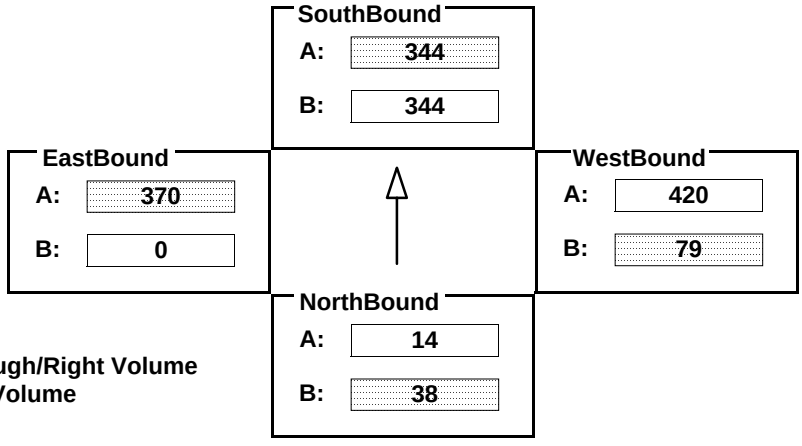
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	38	0	54	681	0	6	79	840	470	0	1054	56
AMBIENT									-344			
RELATED												
PROJECT												
TOTAL	38	0	54	681	0	6	79	840	126	0	1054	56

LANE	1	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	1	0	1	1	0	0	0	2	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	Split	Auto	Prot-Fix	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{38 + 344 + 79 + 370}{*1375} = 0.534$$

LOS = A

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EXISTPM

May 25, 2011 ,Wednesday 12:45:39 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Main Street W/E: Culver Boulevard I/S No: 16

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

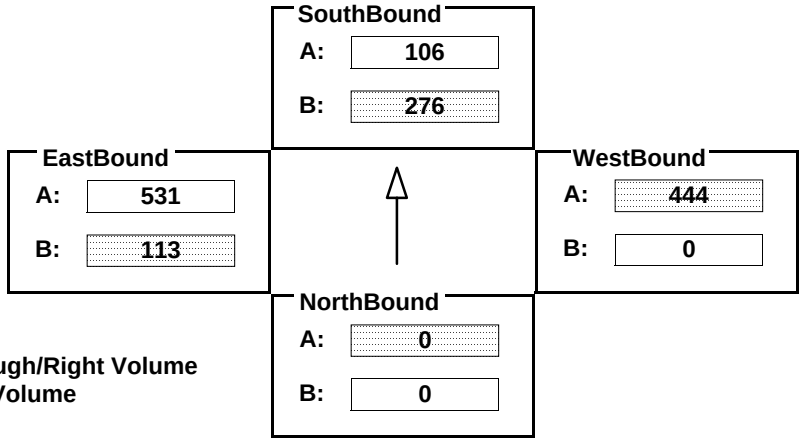
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	276	0	163	0	1216	115	113	1592	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	276	0	163	0	1216	115	113	1592	0

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	0	0	0	0	1	0	0	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	0	0	2	0	1	0	0	1	0	3	0	0	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	<none>	<none>	Split	Auto	Perm	Auto	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 276 + 444 + 113}{*1425} = 0.515$$

LOS = A

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EXISTPM

May 25, 2011 ,Wednesday 12:45:39 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Culver Boulevard W/E: ashington Boulevard/Canfield Avenu I/S No: 17

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

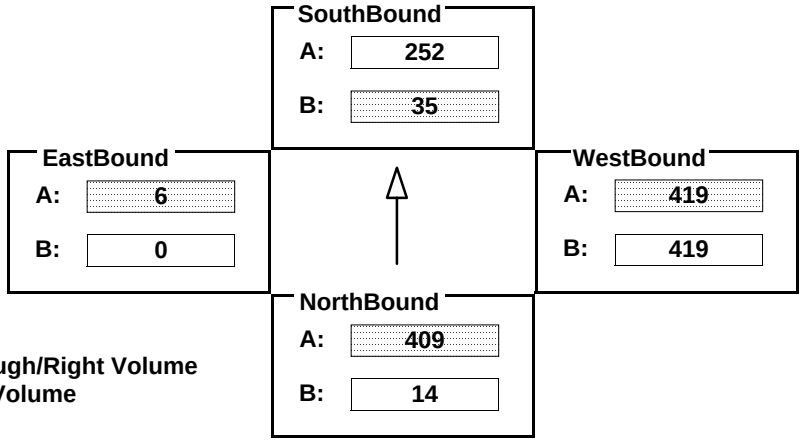
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	14	818	971	35	494	9	809	29	76	0	0	20
AMBIENT												
RELATED												
PROJECT												
TOTAL	14	818	971	35	494	9	809	29	76	0	0	20

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	2	0	1	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	1	0	0	0	1	0	0	0	0	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	OLA	Prot-Fix	Auto	Split	Auto	<none>	OLA

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{409 + 35 + 419 + 6}{*1425} = 0.540$$

LOS = A

Developed by Chun Wong, 12/94

EXISTPM

May 25, 2011 ,Wednesday 12:45:39 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard/Higuera Street W/E: Washington Boulevard I/S No: 18

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	57	167	82	176	200	149	73	719	135	119	896	88
AMBIENT												
RELATED												
PROJECT												
TOTAL	57	167	82	176	200	149	73	719	135	119	896	88

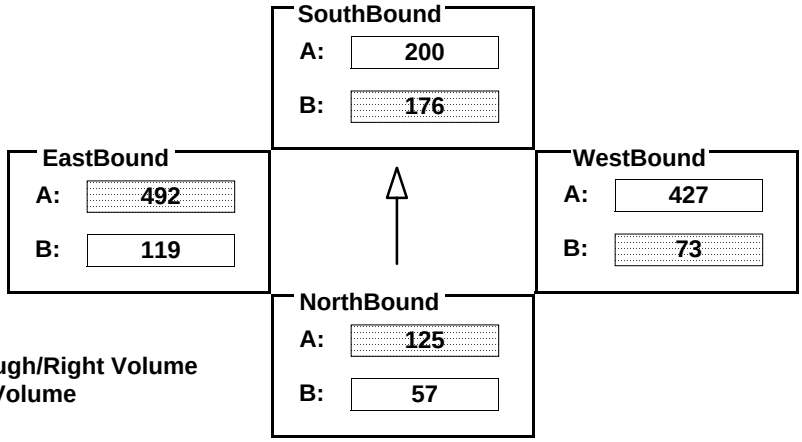
	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	1	0	0	1	0	1	0	0	1	0

	NORTHBOUND		SOUTHBOUND	
	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto

	WESTBOUND							EASTBOUND						
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0

	WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{125 + 176 + 73 + 492}{*1425} = 0.538$$

LOS = A

Developed by Chun Wong, 12/94

EXISTPM

May 25, 2011 ,Wednesday 12:45:39 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Landmark Street W/E: Washington Boulevard I/S No: 19

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

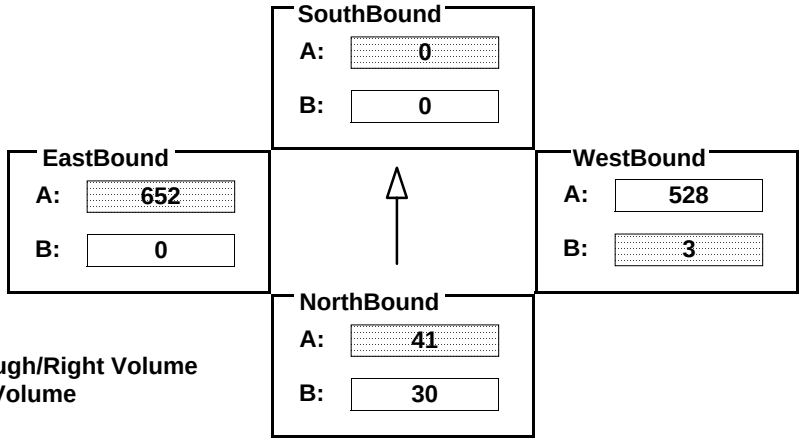
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	30	0	41	0	0	0	3	1056	0	0	1298	6
AMBIENT												
RELATED												
PROJECT												
TOTAL	30	0	41	0	0	0	3	1056	0	0	1298	6

LANE	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	1	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{41 + 0 + 3 + 652}{*1500} = 0.394$$

LOS = A

Developed by Chun Wong, 12/94

EXISTPM

May 25, 2011 ,Wednesday 12:45:39 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: National Boulevard W/E: Washington Boulevard I/S No: 20

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

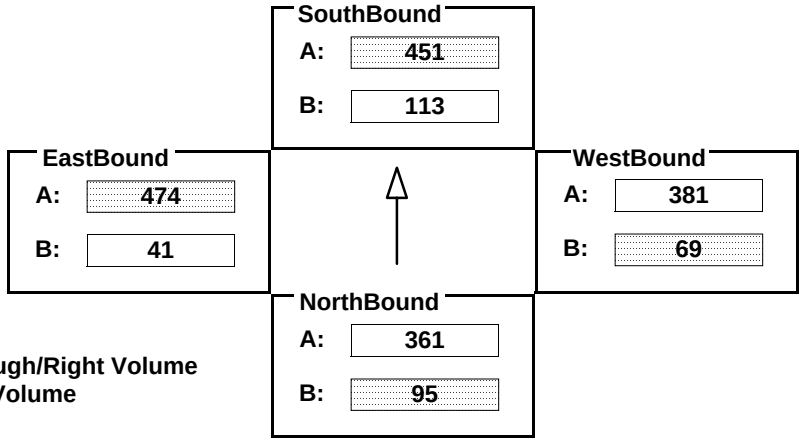
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	173	634	87	205	848	54	69	761	177	41	948	192
AMBIENT												
RELATED												
PROJECT												
TOTAL	173	634	87	205	848	54	69	761	177	41	948	192

LANE	2	0	1	0	1	0	0	2	0	1	0	1	0	0	1	0	2	0	0	1	0	1	0	2	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{95 + 451 + 69 + 474}{*1375} = 0.722$$

LOS = C

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Default Scenario           Wed May 25, 2011 12:48:43                Page 11-1
------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #211 WESLEY AV/WASHINGTON BL [EXISTING PM]
******************************************************************************
Average Delay (sec/veh):      0.2   Worst Case Level Of Service:       D[ 28.3]
******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    1  0  2  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       5    0     7     0    0     0     0 1199     1     1  939     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    5    0     7     0    0     0     0 1199     1     1  939     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     5    0     7     0    0     0     0 1199     1     1  939     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Final Vol.:     5    0     7     0    0     0     0 1199     1     1  939     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8 xxxx   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5 xxxx   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1671 xxxx   600  xxxx xxxx xxxxx  xxxx xxxx xxxxx  1200 xxxx xxxxx
Potent Cap.:   89 xxxx   449  xxxx xxxx xxxxx  xxxx xxxx xxxxx   589 xxxx xxxxx
Move Cap.:     88 xxxx   449  xxxx xxxx xxxxx  xxxx xxxx xxxxx   589 xxxx xxxxx
Volume/Cap:  0.06 xxxx  0.02  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.00 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Queue:      xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.0 xxxx xxxxx
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx  11.1 xxxx xxxxx
LOS by Move:   *    *     *     *    *     *     *    *     *     B    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  166 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.2 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd StpDel:xxxxx 28.3 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    D     *     *    *     *     *    *     *     *    *     *
ApproachDel:      28.3           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:        D              *                *                *
```

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EXISTPM

May 25, 2011 ,Wednesday 12:45:39 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Helms Avenue W/E: Washington Boulevard I/S No: 22

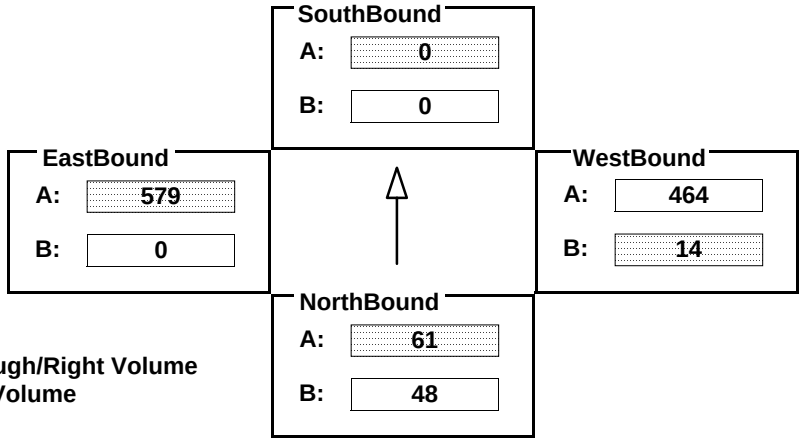
AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	48	0	13	0	0	0	14	927	0	0	1129	29
AMBIENT												
RELATED												
PROJECT												
TOTAL	48	0	13	0	0	0	14	927	0	0	1129	29
LANE	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	2	0	0	0	0	0	0	1	0	1	0	0
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR																
SIGNAL	Split	Auto	<none>	<none>	Perm	Auto	Perm	Auto																

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{61 + 0 + 14 + 579}{*1500} = 0.366$$

LOS = A

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```
Default Scenario           Wed May 25, 2011 12:48:43                Page 13-1
------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #231 CATTARAUGUS AV/WASHINGTON AV [EXISTING PM]
******************************************************************************
Average Delay (sec/veh):      6.1   Worst Case Level Of Service:       F[133.3]
******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  1  0    0  1  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       4    2     3    58    2    36    19 1134     9    11  880    75
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    4    2     3    58    2    36    19 1134     9    11  880    75
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     4    2     3    58    2    36    19 1134     9    11  880    75
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Final Vol.:     4    2     3    58    2    36    19 1134     9    11  880    75
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  7.5  6.5   6.9   7.5  6.5   6.9   4.1 xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3   3.5  4.0   3.3   2.2 xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1640 2154   572  1546 2120   478   955 xxxx xxxxx  1143 xxxx xxxxx
Potent Cap.:   68   49   469    79   51   539   728 xxxx xxxxx   619 xxxx xxxxx
Move Cap.:     59   46   469    74   49   539   728 xxxx xxxxx   619 xxxx xxxxx
Volume/Cap:  0.07 0.04  0.01  0.79 0.04  0.07  0.03 xxxx  xxxx  0.02 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Queue:      xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.1 xxxx xxxxx   0.1 xxxx xxxxx
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  10.1 xxxx xxxxx  10.9 xxxx xxxxx
LOS by Move:   *    *     *     *    *     *     B    *     *     B    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx   77 xxxxx  xxxx  107 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.4 xxxxx xxxxx  5.3 xxxxx   0.1 xxxx xxxxx   0.1 xxxx xxxxx
Shrd StpDel:xxxxx 58.1 xxxxx xxxxx  133 xxxxx  10.1 xxxx xxxxx  10.9 xxxx xxxxx
Shared LOS:    *    F     *     *    F     *     B    *     *     B    *     *
ApproachDel:      58.1           133.3          xxxxxx          xxxxxx
ApproachLOS:        F              F              *               *
```

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CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Washington Boulevard I/S No: 24

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

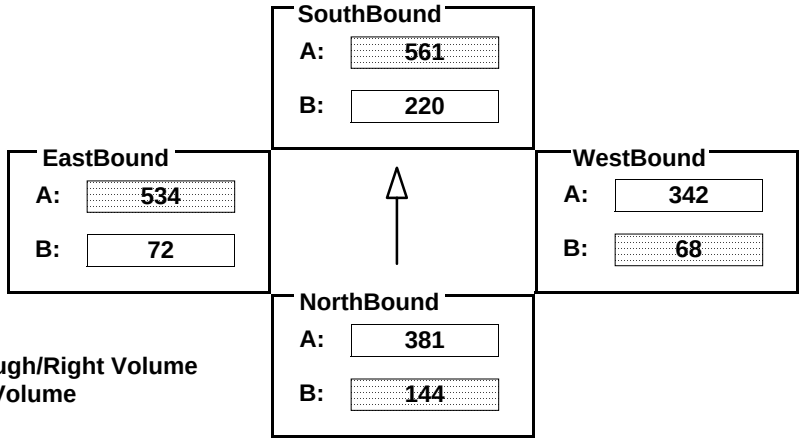
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	144	1086	56	220	1643	41	68	684	123	72	1068	135
AMBIENT												
RELATED												
PROJECT												
TOTAL	144	1086	56	220	1643	41	68	684	123	72	1068	135

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	0	1	0	1	0	2	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{144 + 561 + 68 + 534}{*1375} = 0.881$$

LOS = D

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EXISTPM

May 25, 2011 ,Wednesday 12:45:39 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Fairfax Avenue I/S No: 25

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

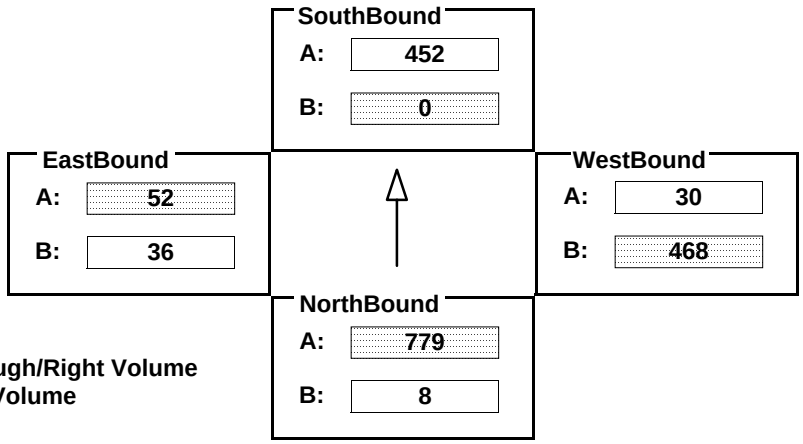
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	8	1557	1374	0	1342	14	851	12	18	36	0	16
AMBIENT												
RELATED												
PROJECT												
TOTAL	8	1557	1374	0	1342	14	851	12	18	36	0	16

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	2	0	0	0	2	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	2	0	0	0	1	0	0	0	0	0	1	0	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Free	Perm	Auto	Split	Auto	Split	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{779 + 0 + 468 + 52}{*1425} = 0.842$$

LOS = D

0.842-0.03* = 0.812 LOS D
*ATCS Benefit

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EXISTPM

May 25, 2011 ,Wednesday 12:45:39 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Wesley Street W/E: National Boulevard I/S No: 26

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

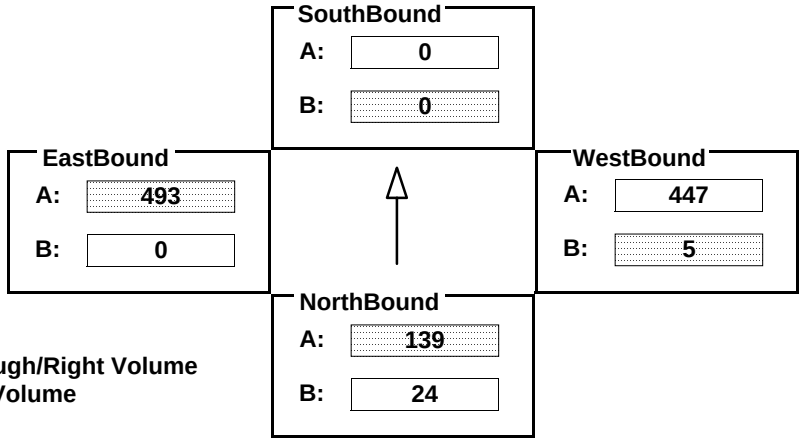
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	24	0	115	0	0	0	5	894	0	0	985	4
AMBIENT												
RELATED												
PROJECT												
TOTAL	24	0	115	0	0	0	5	894	0	0	985	4

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	0	0	0	1	0	0	0	0	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	0	0	0	0	0	2	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{139 + 0 + 5 + 493}{*1500} = 0.355$$

LOS = A

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EXISTPM

May 25, 2011 ,Wednesday 12:45:39 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Hayden Avenue W/E: National Boulevard I/S No: 27

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

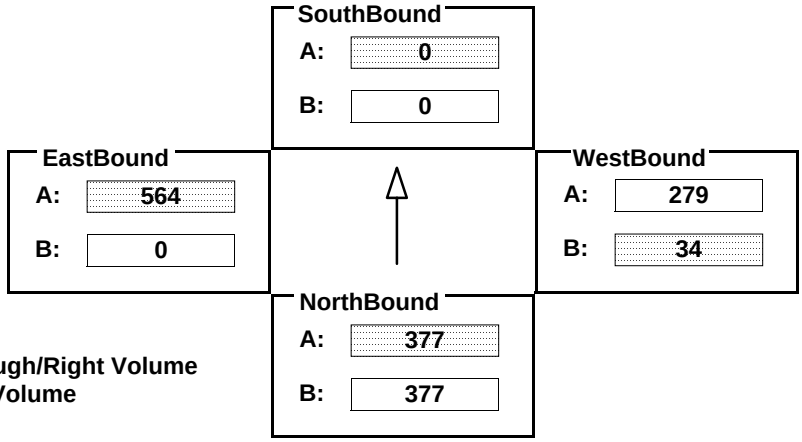
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	610	0	144	0	0	0	34	279	0	0	992	135
AMBIENT												
RELATED												
PROJECT												
TOTAL	610	0	144	0	0	0	34	279	0	0	992	135

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	0	0	0	0	1	0	0	0	0	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	1	0	0	0	0	0	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	<none>	Prot-Fix	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{377 + 0 + 34 + 564}{*1425} = 0.614$$

LOS = B

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CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Jefferson Boulevard W/E: National Boulevard I/S No: 28

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

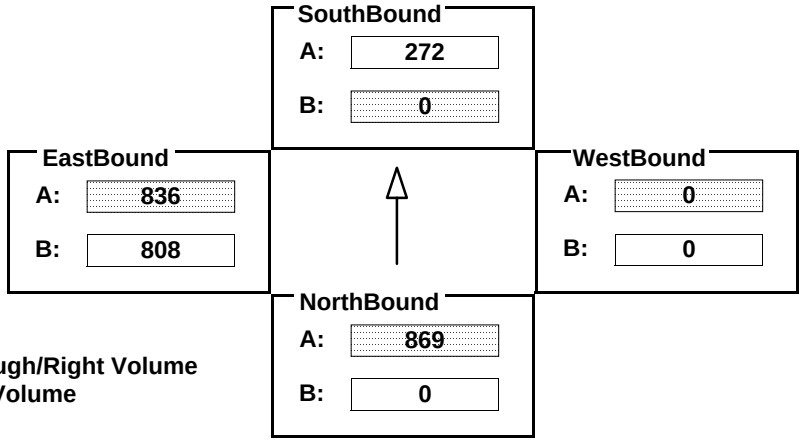
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	869	0	0	544	346	0	0	0	808	0	28
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	869	0	0	544	346	0	0	0	808	0	28

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	1	0	0	0	0	0	0	2	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	0	0	0	0	0	0	0	0	0	0	0	0	0	1

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Free	<none>	<none>	Split	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{869 + 0 + 0 + 836}{*1500} = 1.067$$

LOS = F

1.067-0.03* = 1.037 LOS F
*ATCS Benefit

Developed by Chun Wong, 12/94

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Jefferson Boulevard I/S No: 29

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

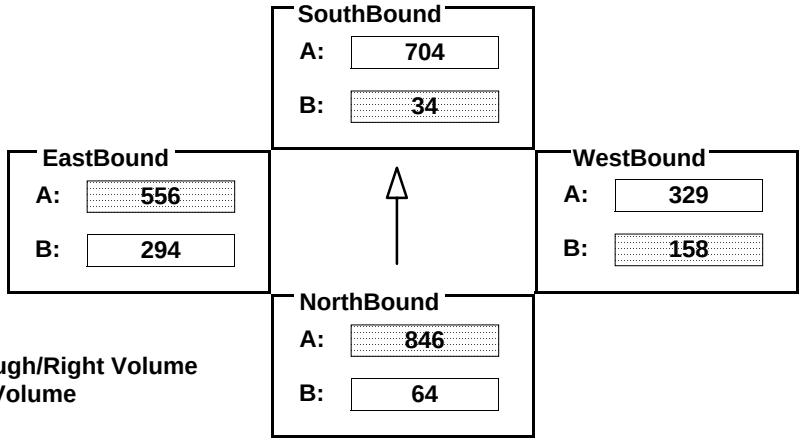
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	64	2233	306	34	2113	215	288	657	64	535	887	224
AMBIENT												
RELATED												
PROJECT												
TOTAL	64	2233	306	34	2113	215	288	657	64	535	887	224

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	1	0	0	1	0	3	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	2	0	2	0	0	1	0	2	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	OLA	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{846 + 34 + 158 + 556}{*1375} = 1.089$$

LOS = F

1.089-0.03* = 1.059 LOS F
*ATCS Benefit

Developed by Chun Wong, 12/94

EXISTPM

May 25, 2011 ,Wednesday 12:45:39 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Jefferson Boulevard W/E: Higuera Street/Rodeo Road I/S No: 30

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

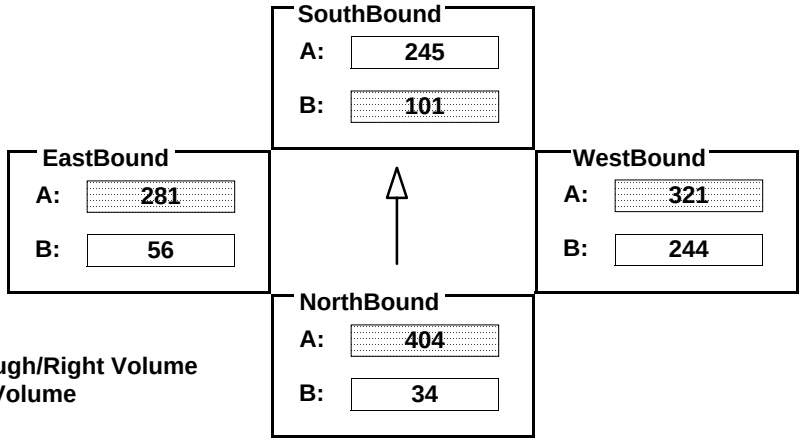
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	34	808	876	101	489	38	443	321	8	56	562	149
AMBIENT												
RELATED												
PROJECT												
TOTAL	34	808	876	101	489	38	443	321	8	56	562	149

LANE	1	0	2	0	0	1	0	1	0	2	0	0	1	0	2	0	1	0	0	1	0	1	0	2	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Free	Perm	Auto	Split	Auto	Split	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{404 + 101 + 321 + 281}{*1425} = 0.707$$

LOS = C

0.707-0.03* = 0.677 LOS B
*ATCS Benefit

Developed by Chun Wong, 12/94

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Rodeo Road I/S No: 31

AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

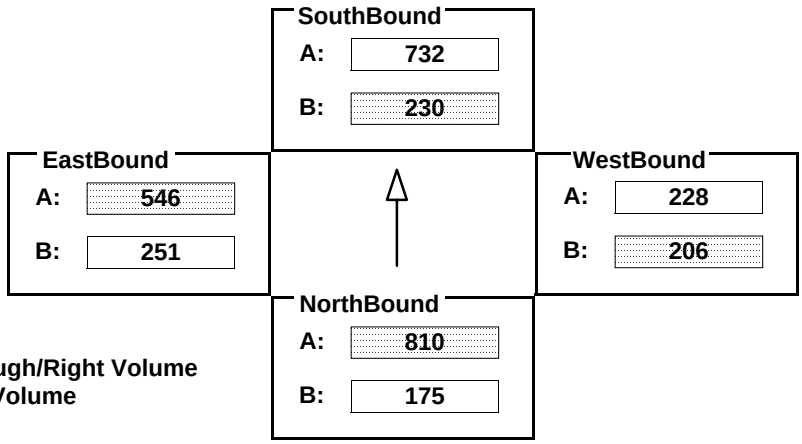
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	319	2199	230	419	2131	65	206	455	133	251	1091	322
AMBIENT												
RELATED												
PROJECT												
TOTAL	319	2199	230	419	2131	65	206	455	133	251	1091	322

	NORTHBOUND							SOUTHBOUND						
LANE	2	0	2	0	1	0	0	2	0	2	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	0	1	0	1	0	2	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Prot-Var	OLA	Prot-Var	OLA

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{810 + 230 + 206 + 546}{*1375} = 1.233$$

LOS = F

1.233-0.03* = 1.203 LOS F
*ATCS Benefit

Developed by Chun Wong, 12/94

```
Default Scenario           Wed May 25, 2011 12:48:43                Page 15-1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
*******************************************************************************
Intersection #321 BRADDOCK DR/DUQUESNE AV [EXISTING PM]
*******************************************************************************
Cycle (sec):        100                Critical Vol./Cap. (X):        1.256
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):        85.7
Optimal Cycle:        0                Level Of Service:                  F
*******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     150  169   171     7   35    13   123  404   155    16  387    16
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  150  169   171     7   35    13   123  404   155    16  387    16
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:   150  169   171     7   35    13   123  404   155    16  387    16
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  150  169   171     7   35    13   123  404   155    16  387    16
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Final Vol.:   150  169   171     7   35    13   123  404   155    16  387    16
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.31 0.34  0.35  0.13 0.63  0.24  0.18 0.59  0.23  0.04 0.92  0.04
Final Sat.:   162  183   185    51  254    95    98  322   123    20  472    20
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.92 0.92  0.92  0.14 0.14  0.14  1.26 1.26  1.26  0.82 0.82  0.82
Crit Moves:       ****        ****                ****              ****
Delay/Veh:   47.5 47.5  47.5  12.6 12.6  12.6 151.5  151 151.5  33.1 33.1  33.1
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  47.5 47.5  47.5  12.6 12.6  12.6 151.5  151 151.5  33.1 33.1  33.1
LOS by Move:   E    E     E     B    B     B     F    F     F     D    D     D
ApproachDel:      47.5            12.6           151.5            33.1
Delay Adj:        1.00            1.00            1.00            1.00
ApprAdjDel:       47.5            12.6           151.5            33.1
LOS by Appr:        E               B               F               D
*******************************************************************************
```

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```
Default Scenario           Wed May 25, 2011 12:48:43                Page 17-1
------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
******************************************************************************
Intersection #331 LUCERNE AV/DUQUESNE AV [EXISTING PM]
******************************************************************************
Cycle (sec):        100                Critical Vol./Cap. (X):        0.876
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):        28.6
Optimal Cycle:        0                Level Of Service:                  D
******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0   327    0    71    56  445     0     0  434   226
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0     0   327    0    71    56  445     0     0  434   226
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     0    0     0   327    0    71    56  445     0     0  434   226
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0   327    0    71    56  445     0     0  434   226
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Final Vol.:     0    0     0   327    0    71    56  445     0     0  434   226
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.00 0.00  0.00  0.82 0.00  0.18  0.11 0.89  0.00  0.00 1.00  1.00
Final Sat.:     0    0     0   441    0    96    64  508     0     0  537   599
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     xxxx xxxx  xxxx  0.74 xxxx  0.74  0.88 0.88  xxxx  xxxx 0.81  0.38
Crit Moves:                   ****             ****                   ****
Delay/Veh:    0.0  0.0   0.0  24.6  0.0  24.6  37.2 37.2   0.0   0.0 30.8  12.1
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0  0.0   0.0  24.6  0.0  24.6  37.2 37.2   0.0   0.0 30.8  12.1
LOS by Move:   *    *     *     C    *     C     E    E     *     *    D     B
ApproachDel:    xxxxxx            24.6            37.2            24.4
Delay Adj:       xxxxx            1.00            1.00            1.00
ApprAdjDel:     xxxxxx            24.6            37.2            24.4
LOS by Appr:         *               C               E               C
******************************************************************************
```

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EXISTPM

May 25, 2011 ,Wednesday 12:45:39 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Jefferson Boulevard W/E: Duquesne Avenue I/S No: 34

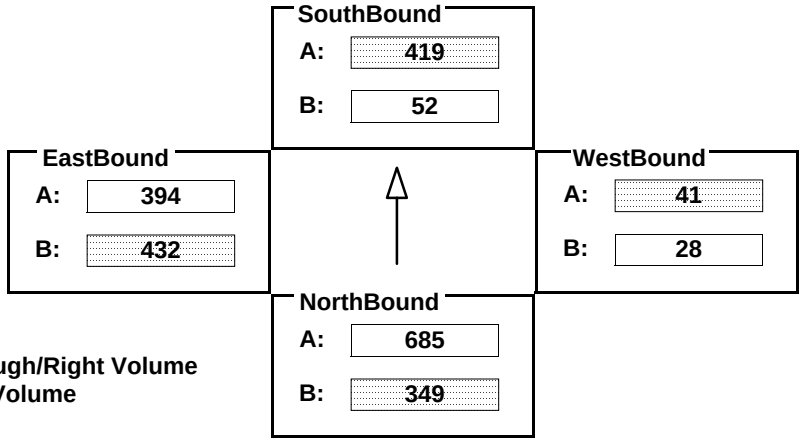
AM/PM: PM Comments: Existing Conditions

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	349	1335	34	52	838	189	28	41	20	432	62	332
AMBIENT												
RELATED												
PROJECT												
TOTAL	349	1335	34	52	838	189	28	41	20	432	62	332
LANE	1 0 1 0 1 0 0			1 0 2 0 0 1 0			1 0 1 0 0 1 0			1 0 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Var	Auto		Prot-Var	Auto		Perm	OLA		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{349 + 419 + 41 + 432}{*1375} = 0.833$$

LOS = D

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APPENDIX E

Related Projects Trip Generation Rates

Capacity Calculation Worksheets
Cumulative (2014) Base Conditions

Related Projects Trip Generation Rates

APPENDIX E
RELATED PROJCETS TRIP GENERATION RATES [1]

	Size	Daily	AM Peak Hour			PM Peak Hour		
			IN	OUT	TOTAL	IN	OUT	TOTAL
Trip Rates [1]								
Warehouse (ITE Land Use 150)	per 1,000 s.f.	[2]	79%	21%	0.30	25%	75%	0.32
Apartment (ITE Land Use 220)	per d.u.	[3]	20%	80%	[3]	65%	35%	[3]
Condominium/Townhouse (ITE Land Use 230)	per d.u.	5.81	17%	83%	0.44	67%	33%	0.52
Senior Housing (ITE Land Use 252)	per occupied d.u.	3.48	36%	64%	0.13	60%	40%	0.16
Congregate Care (ITE Land Use 253)	per d.u.	2.02	59%	41%	0.06	55%	45%	0.17
Hotel (ITE Land Use 310)	per occupied room	8.92	58%	42%	0.67	49%	51%	0.70
Community College (ITE Land Use 540)	per 1,000 s.f.	27.49	74%	26%	2.99	58%	42%	2.54
General Office (ITE Land Use 710)	per 1,000 s.f.	[4]	88%	12%	[4]	17%	83%	[4]
Medical/Dental Office (ITE Land Use 720)	per 1,000 s.f.	36.13	79%	21%	2.30	27%	73%	3.46
Specialty Retail (ITE Land Use 814)	per 1,000 s.f.	44.32	60%	40%	[5]	44%	56%	2.71
Retail (ITE Land Use 820)	per 1,000 s.f.	42.94	61%	39%	1.00	49%	51%	3.73
Convenience Store (ITE Land Use 851)	per 1,000 s.f.	737.99	50%	50%	67.03	51%	49%	52.41
Restaurant (ITE Land Use 931)	per 1,000 s.f.	89.95	50%	50%	0.81	67%	33%	7.49
High-Turnover Restaurant (ITE Land Use 932)	per 1,000 s.f.	127.15	52%	48%	11.52	59%	41%	11.15
Auto Care Center (ITE Land Use 942)	per 1,000 s.f.	n/a	65%	35%	2.94	50%	50%	3.38
Gas Station w/Convenience Store (ITE Land Use 945)	per 1,000 s.f.	n/a	51%	49%	79.30	50%	50%	97.08
Automated Car Wash (ITE Land Use 948)	per 1,000 s.f.	900 [6]	50%	50%	[6]	50%	50%	14.12

[1] *Trip Generation, An ITE Information Report*, 8th Edition, ITE 2008

[2] Daily trip generation for warehouse was calculated using the following formula:

		Where:
Daily:	Ln(T) = 0.86 Ln(X) + 2.24	Ln = Natural logarithm
		T = Two-way volume of traffic (total trip-ends)
		X = Area in 1,000 gross square feet of leasable area

[3] Trip generation for apartment was calculated using the following formulas:

		Where:
Daily:	T = 6.06 (X) + 123.56	T = Two-way volume of traffic (total trip-ends)
AM Peak Hour:	T =0.49 (X) + 3.73	X = Number of dwelling units
PM Peak Hour:	T =0.55 (X) + 17.65	

[4] Trip generation for office was calculated using one of the following methods per ITE Trip Genration:

a) Average Rates

Daily:	T = 11.01 (X)
AM Peak Hour:	T = 1.55 (X)
PM Peak Hour:	T = 1.49 (X)

b) Equations

		Where:
Daily:	Ln(T) = 0.77 Ln(X) + 3.65	Ln = Natural logarithm
AM Peak Hour:	Ln(T) = 0.80 Ln(X) + 1.55	T = Two-way volume of traffic (total trip-ends)
PM Peak Hour:	T = 1.12 (X) + 78.81	X = Area in 1,000 gross square feet of leasable area

[5] AM peak hour trip rate obtained from *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, SANDAG, April 2002. AM peak hour is 3% of Daily Trips.

[6] Daily and AM peak hour trip rate obtained from *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, SANDAG, April 2002. AM peak hour is 4% of Daily Trips.

Cumulative (2014) Base Conditions

AM Peak Hour

CBASEAM

May 25, 2011 ,Wednesday 01:27:11 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: Cattaragus Avenue I/S No: 1

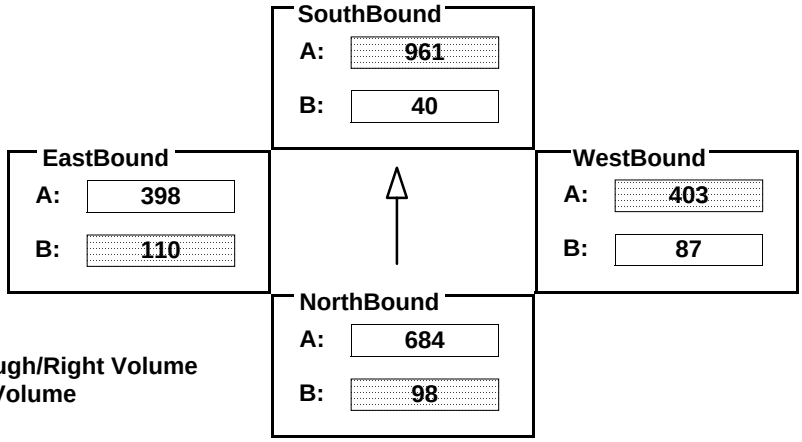
AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	98	1363	5	40	1848	73	87	244	72	110	142	146
AMBIENT												
RELATED												
PROJECT												
TOTAL	98	1363	5	40	1848	73	87	244	72	110	142	146
LANE	1 0 1 0 1 0 0			1 0 1 0 1 0 0			0 0 0 1 0 0 0			0 0 0 1 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{98 + 961 + 403 + 110}{*1500} = 0.978$$

LOS = E

0.978-0.03* = 0.948 LOS E
*ATCS Benefit

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CBASEAM

May 25, 2011 ,Wednesday 01:27:11 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: I-10 WB Off-Ramp/Kincardine Av I/S No: 2

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

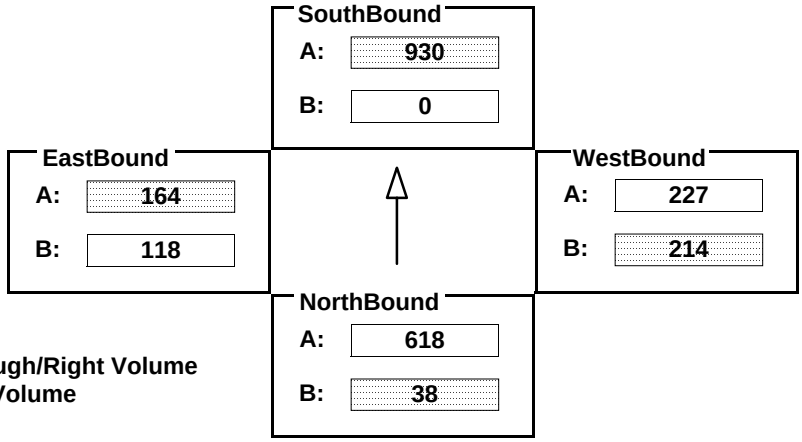
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	38	1235	0	0	1784	75	214	13	175	118	0	46
AMBIENT												
RELATED												
PROJECT												
TOTAL	38	1235	0	0	1784	75	214	13	175	118	0	46

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	0	0	0	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	0	0	0	1	0	1	0	0	0	0	0	0	0	1

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{38 + 930 + 214 + 164}{*1500} = 0.827$$

LOS = D

0.827-0.03* = 0.797 LOS C
*ACTS Benefit

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CBASEAM

May 25, 2011 ,Wednesday 01:27:11 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: National Boulevard I/S No: 3

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

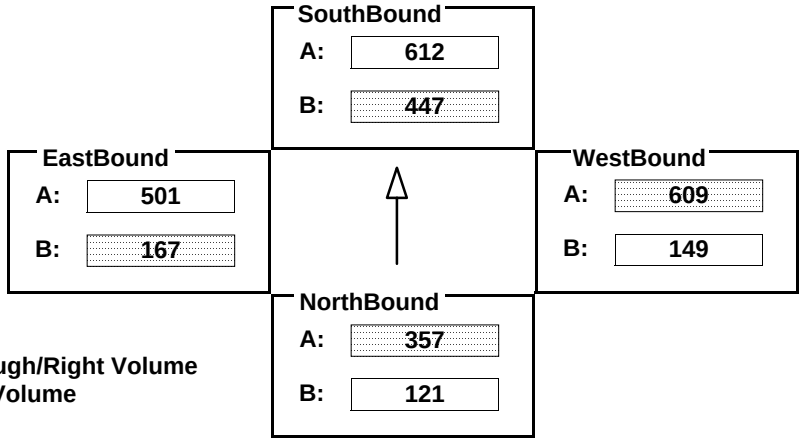
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	121	658	55	813	1013	211	149	609	500	167	740	262
AMBIENT												
RELATED												
PROJECT												
TOTAL	121	658	55	813	1013	211	149	609	500	167	740	262

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	1	0	0	2	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	1	0	0	1	0	1	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	Auto	Perm	OLA	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{357 + 447 + 609 + 167}{*1375} = 1.079$$

LOS = F

1.079-0.03* = 1.049 LOS F
*ATCS Benefit

Developed by Chun Wong, 12/94

CBASEAM

May 25, 2011 ,Wednesday 01:27:11 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: National Boulevard W/E: I-10 EB On-Ramp I/S No: 4

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

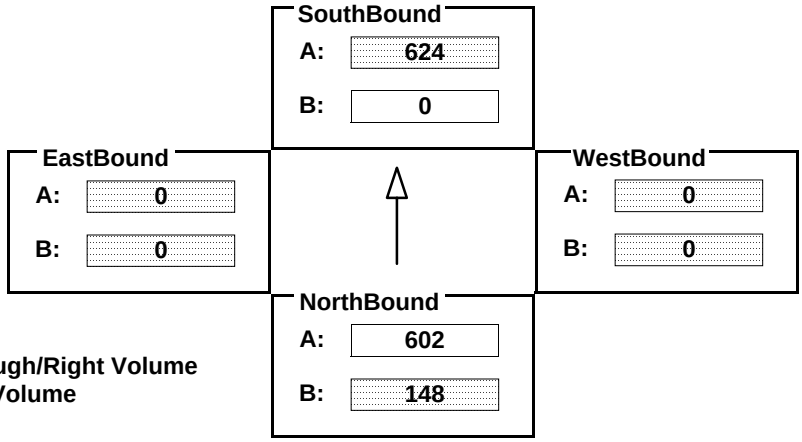
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	148	1204	0	0	1075	624	0	0	0	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	148	1204	0	0	1075	624	0	0	0	0	0	0

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	0	0	0	0	2	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Perm	Auto	<none>	<none>	<none>	<none>

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = +

$$V/C = \frac{148 + 624 + +}{*1500} = 0.445$$

LOS = A

0.445-0.03* = 0.415 LOS A
*ATCS Benefit

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CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Hughes Avenue W/E: Venice Boulevard I/S No: 5

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

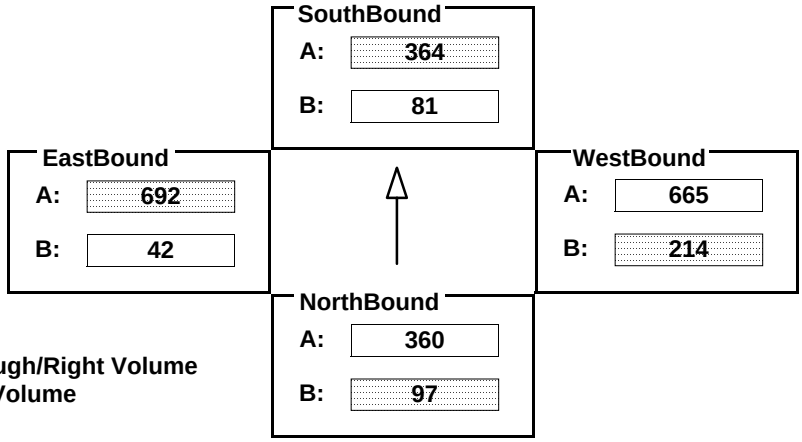
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	97	206	57	81	236	47	214	1996	44	42	2075	121
AMBIENT												
RELATED												
PROJECT												
TOTAL	97	206	57	81	236	47	214	1996	44	42	2075	121

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	3	0	0	1	0	1	0	3	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{97 + 364 + 214 + 692}{*1500} = 0.841$$

LOS = D

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INTERSECTION DATA SUMMARY SHEET

N/S: Bagley Avenue W/E: Venice Boulevard I/S No: 6

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

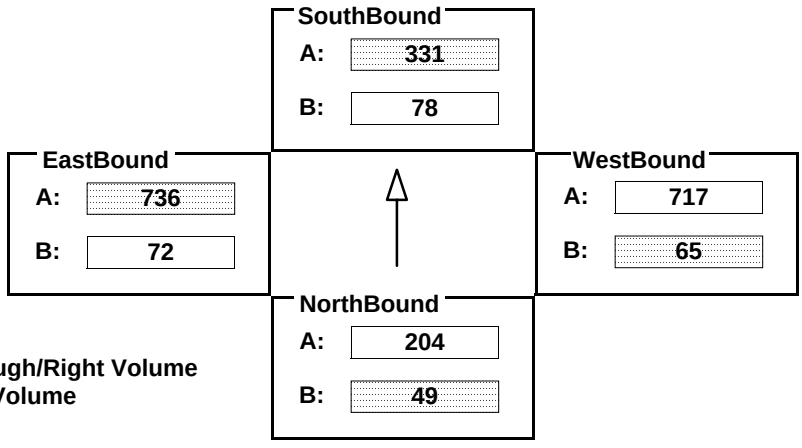
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	49	159	45	78	179	74	65	2150	42	72	2153	54
AMBIENT												
RELATED												
PROJECT												
TOTAL	49	159	45	78	179	74	65	2150	42	72	2153	54

LANE	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	3	0	0	1	0	1	0	2	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{49 + 331 + 65 + 736}{*1375} = 0.789$$

LOS = C

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INTERSECTION DATA SUMMARY SHEET

N/S: Culver Boulevard W/E: Venice Boulevard I/S No: 7

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

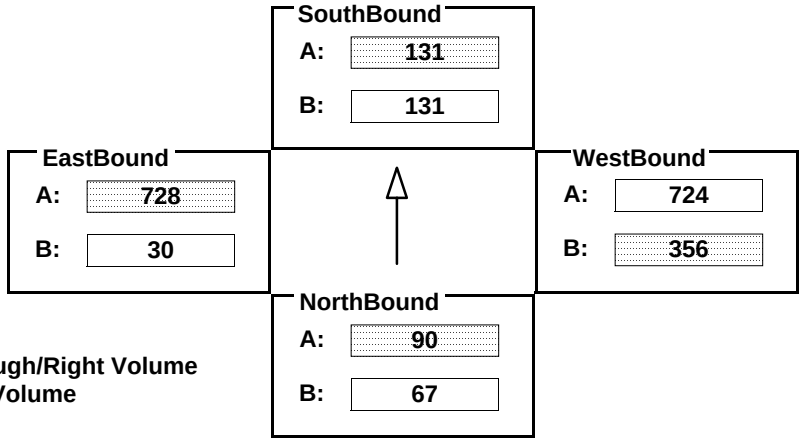
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	67	87	810	183	45	33	647	2021	152	30	2094	91
AMBIENT												
RELATED												
PROJECT												
TOTAL	67	87	810	183	45	33	647	2021	152	30	2094	91

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	0	2	0	1	0	0	1	0	0	0

	WESTBOUND							EASTBOUND						
LANE	2	0	2	0	1	0	0	1	0	2	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	OLA	Split	Auto	Prot-Fix	Auto	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{90 + 131 + 356 + 728}{*1375} = 0.879$$

LOS = D

0.879-0.03* = 0.849 LOS D
*ATCS Benefit

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May 25, 2011 ,Wednesday 01:27:11 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: Venice Boulevard I/S No: 8

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	228	538	61	650	429	319	81	2327	356	607	2482	158
AMBIENT												
RELATED												
PROJECT												
TOTAL	228	538	61	650	429	319	81	2327	356	607	2482	158

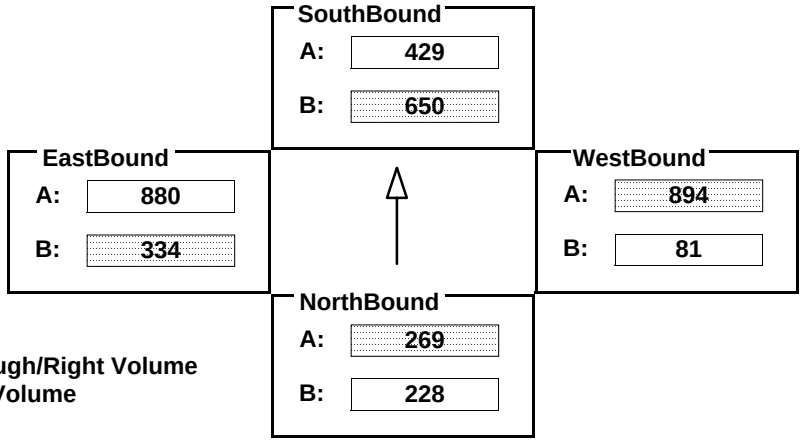
	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	1	0	0	1	1	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	1	0	0	2	0	2	0	1	0	0

	NORTHBOUND		SOUTHBOUND	
	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	OLA	Split	Auto

	WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{269 + 650 + 894 + 334}{*1375} = 1.491$$

LOS = F

1.491-0.03* = 1.461 LOS F
*ATCS Benefit

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INTERSECTION DATA SUMMARY SHEET

N/S: National Boulevard W/E: Venice Boulevard I/S No: 9

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

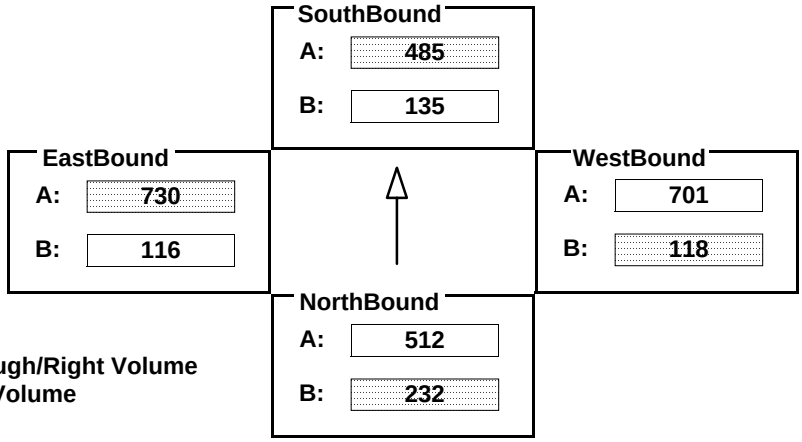
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	232	1001	23	135	821	148	214	2104	122	211	2189	683
AMBIENT												
RELATED												
PROJECT												
TOTAL	232	1001	23	135	821	148	214	2104	122	211	2189	683

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	2	0	3	0	0	1	0	2	0	3	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	Auto	Prot-Fix	Auto	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{232 + 485 + 118 + 730}{*1375} = 1.068$$

LOS = F

1.068-0.03* = 1.038 LOS F
*ATCS Benefit

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INTERSECTION DATA SUMMARY SHEET

N/S: Helms Avenue W/E: Venice Boulevard I/S No: 10

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

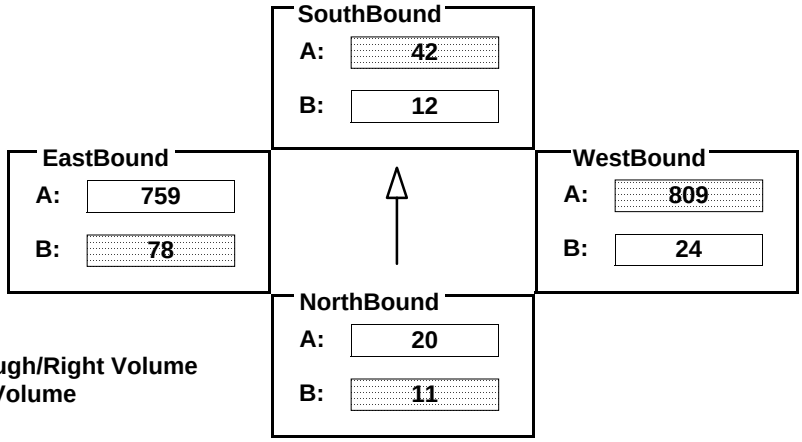
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	11	9	4	12	2	28	24	2404	23	78	2255	22
AMBIENT												
RELATED												
PROJECT												
TOTAL	11	9	4	12	2	28	24	2404	23	78	2255	22

	NORTHBOUND							SOUTHBOUND						
LANE	0	1	0	0	0	1	0	0	0	0	1	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{11 + 42 + 809 + 78}{*1500} = 0.557$$

LOS = A

0.557-0.03* = 0.527 LOS A
*ATCS Benefit

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INTERSECTION DATA SUMMARY SHEET

N/S: Cattaraugus Avenue W/E: Venice Boulevard I/S No: 11

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

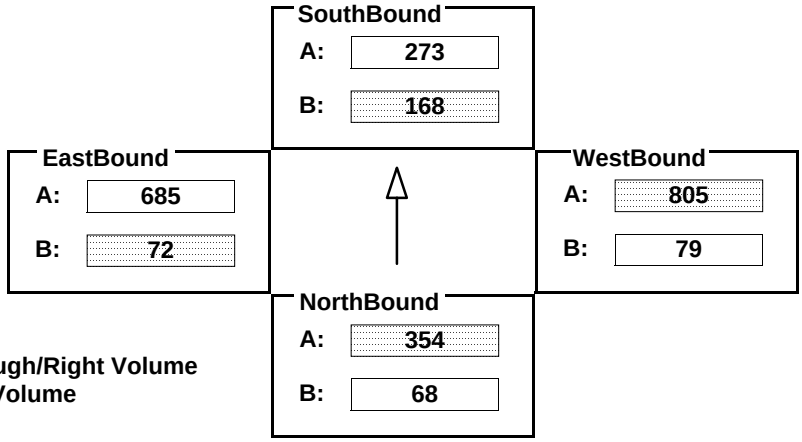
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	68	252	34	168	87	18	79	2309	105	72	2045	11
AMBIENT												
RELATED												
PROJECT												
TOTAL	68	252	34	168	87	18	79	2309	105	72	2045	11

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{354 + 168 + 805 + 72}{*1500} = 0.863$$

LOS = D

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CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Venice Boulevard I/S No: 12

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

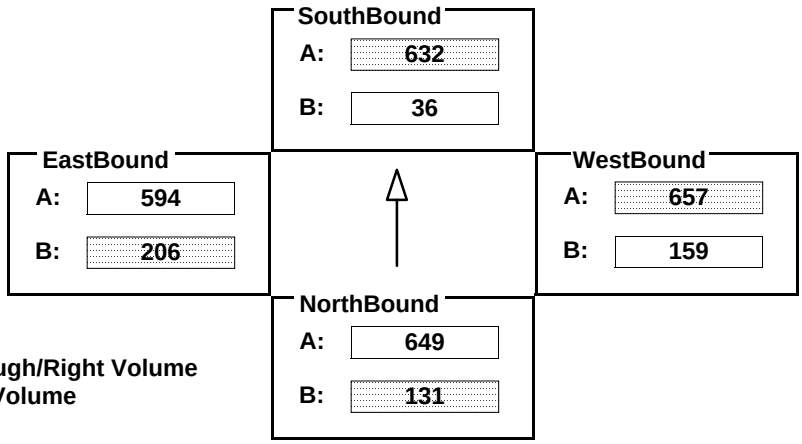
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	131	1867	79	36	1485	411	159	1972	15	375	1783	173
AMBIENT												
RELATED												
PROJECT												
TOTAL	131	1867	79	36	1485	411	159	1972	15	375	1783	173

LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0	1	0	3	0	0	1	0	2	0	3	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{131 + 632 + 657 + 206}{*1375} = 1.113$$

LOS = F

1.113-0.03* = 1.083 LOS F
*ATCS Benefit

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INTERSECTION DATA SUMMARY SHEET

N/S: Hughes Av/Duquesne Av W/E: Washington Boulevard I/S No: 13

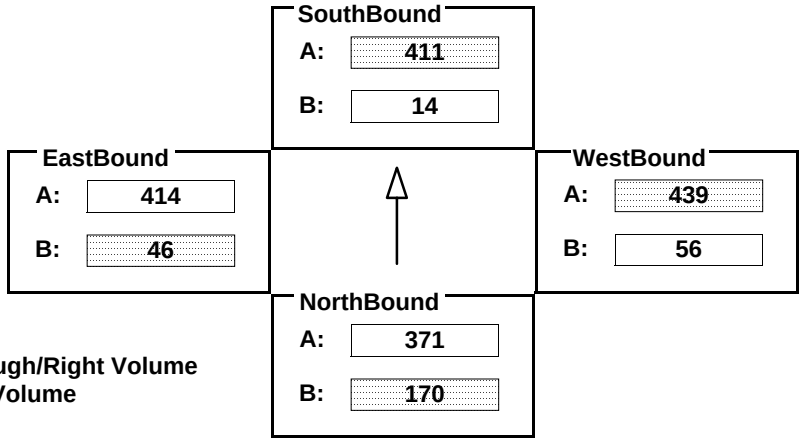
AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	170	331	40	14	360	51	56	827	51	46	641	186
AMBIENT												
RELATED												
PROJECT												
TOTAL	170	331	40	14	360	51	56	827	51	46	641	186
LANE	1 0 0 0 1 0 0			1 0 0 0 1 0 0			1 0 1 0 1 0 0			1 0 1 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{170 + 411 + 439 + 46}{*1500} = 0.641$$

LOS = B

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INTERSECTION DATA SUMMARY SHEET

N/S: Duquesne Avenue W/E: Culver Boulevard I/S No: 14

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

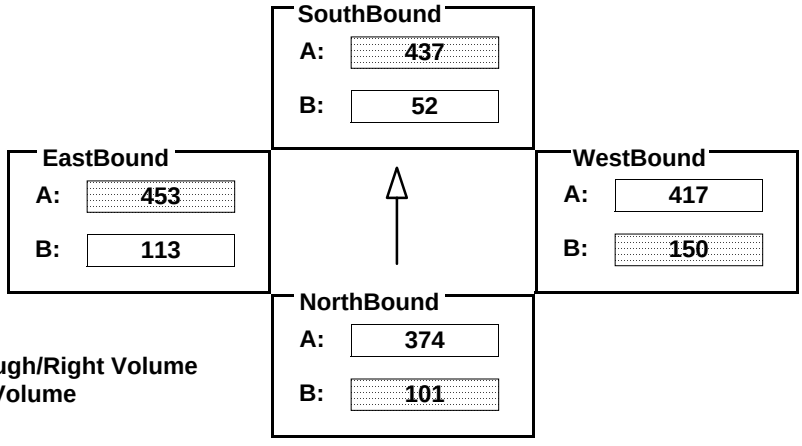
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	101	374	140	52	437	79	150	776	57	113	855	51
AMBIENT												
RELATED												
PROJECT												
TOTAL	101	374	140	52	437	79	150	776	57	113	855	51

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	0	1	0	1	0	1	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{101 + 437 + 150 + 453}{*1375} = 0.760$$

LOS = C

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CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Culver Boulevard W/E: Washington Bl/Irving Pl I/S No: 15

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

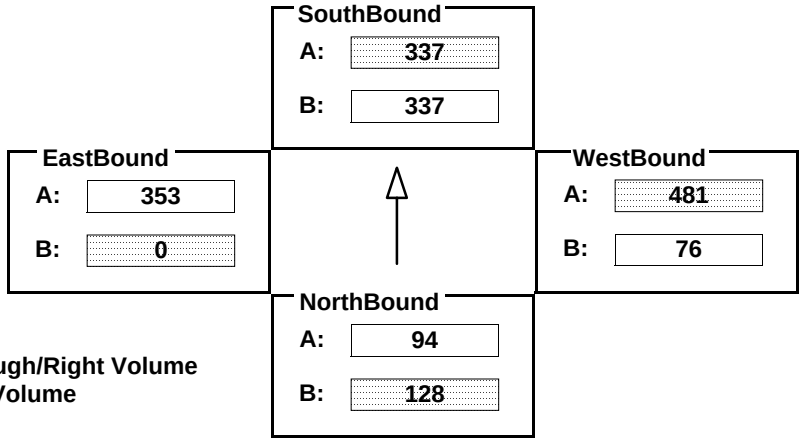
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	128	0	132	650	0	24	76	896	885	0	1015	44
AMBIENT									-337			
RELATED												
PROJECT												
TOTAL	128	0	132	650	0	24	76	896	548	0	1015	44

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	0	0	0	1	0	1	0	0	0	0	0	1

	WESTBOUND							EASTBOUND						
LANE	1	0	1	0	1	1	0	0	0	2	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	Split	Auto	Prot-Fix	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{128 + 337 + 481 + 0}{*1375} = 0.618$$

LOS = B

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May 25, 2011 ,Wednesday 01:27:11 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Main Street | W/E: Culver Boulevard | I/S No: 16

AM/PM: AM | Comments: Cumulative (2014) Base

COUNT DATE: | STUDY DATE: | GROWTH FACTOR:

Volume/Lane/Signal Configurations

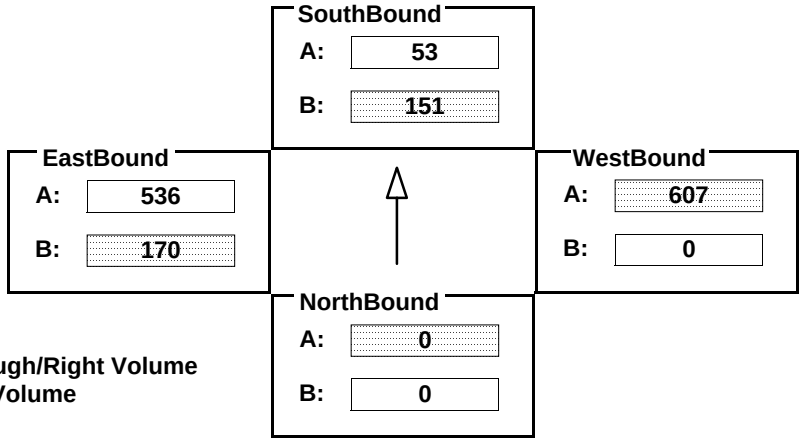
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	151	0	138	0	1656	164	170	1609	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	151	0	138	0	1656	164	170	1609	0

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	0	0	0	0	1	0	0	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	0	0	2	0	1	0	0	1	0	3	0	0	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	<none>	<none>	Split	Auto	Perm	Auto	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 151 + 607 + 170}{*1425} = 0.581$$

LOS = A

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May 25, 2011 ,Wednesday 01:27:11 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Culver Boulevard W/E: Washington Bl/Canfield Av I/S No: 17

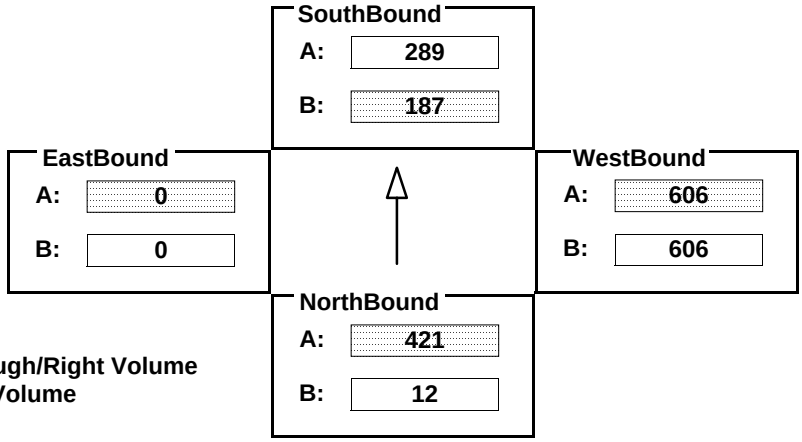
AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	12	842	913	187	574	4	1176	36	139	0	0	6
AMBIENT												
RELATED												
PROJECT												
TOTAL	12	842	913	187	574	4	1176	36	139	0	0	6
LANE	1 0 2	0 0 2	0	1 0 1	0 1	0 0	1 1 0	0 0 1	0	0 0 0	0 0 0	1 0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	OLA		Prot-Fix	Auto		Split	Auto		<none>	OLA	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{421 + 187 + 606 + 0}{*1425} = 0.782$$

LOS = C

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May 25, 2011 ,Wednesday 01:27:11 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Bl/Higuera St W/E: Washington Boulevard I/S No: 18

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

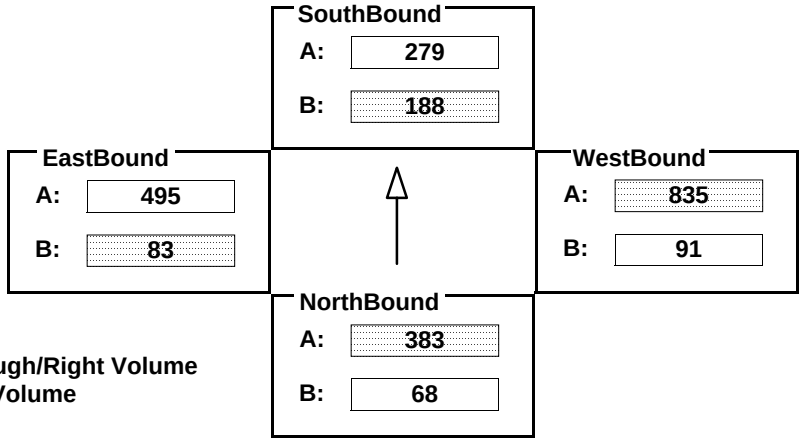
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	68	383	71	188	279	136	91	1350	319	83	919	71
AMBIENT												
RELATED												
PROJECT												
TOTAL	68	383	71	188	279	136	91	1350	319	83	919	71

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	0	1	0	1	0	1	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{383 + 188 + 835 + 83}{*1425} = 0.975$$

LOS = E

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May 25, 2011 ,Wednesday 01:27:11 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Landmark Street W/E: Washington Boulevard I/S No: 19

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

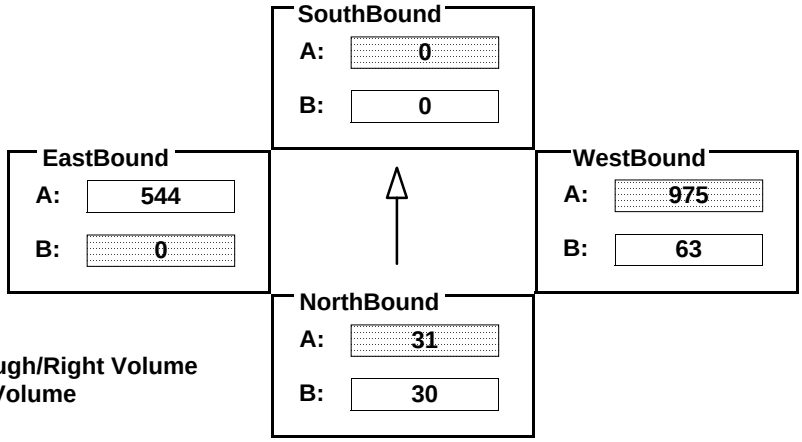
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	30	0	31	0	0	0	63	1949	0	0	1007	80
AMBIENT												
RELATED												
PROJECT												
TOTAL	30	0	31	0	0	0	63	1949	0	0	1007	80

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	0	0	0	1	0	0	0	0	0	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	0	0	0	0	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{31 + 0 + 975 + 0}{*1500} = 0.601$$

LOS = B

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May 25, 2011 ,Wednesday 01:27:11 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: National Boulevard W/E: Washington Boulevard I/S No: 20

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

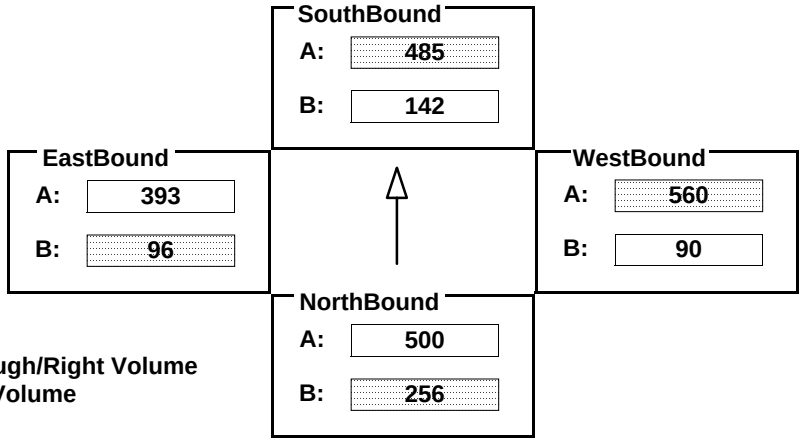
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	466	874	126	258	902	67	90	1339	340	96	785	184
AMBIENT												
RELATED												
PROJECT												
TOTAL	466	874	126	258	902	67	90	1339	340	96	785	184

	NORTHBOUND							SOUTHBOUND						
LANE	2	0	1	0	1	0	0	2	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	1	0	0	1	0	2	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{256 + 485 + 560 + 96}{*1375} = 0.946$$

LOS = E

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```
Default Scenario           Wed May 25, 2011 14:47:01                 Page 3-1
------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #21 WESLEY AV/WASHINGTON BL [CUMULATIVE (2014) BASE AM]
******************************************************************************
Average Delay (sec/veh):      2.0   Worst Case Level Of Service:       F[134.9]
******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    1  0  2  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      30    0    13     0    0     0     0 1112    36    26 1756     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   30    0    13     0    0     0     0 1112    36    26 1756     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    30    0    13     0    0     0     0 1112    36    26 1756     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Final Vol.:    30    0    13     0    0     0     0 1112    36    26 1756     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8 xxxx   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5 xxxx   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 2060 xxxx   574  xxxx xxxx xxxxx  xxxx xxxx xxxxx  1148 xxxx xxxxx
Potent Cap.:   49 xxxx   467  xxxx xxxx xxxxx  xxxx xxxx xxxxx   616 xxxx xxxxx
Move Cap.:     47 xxxx   467  xxxx xxxx xxxxx  xxxx xxxx xxxxx   616 xxxx xxxxx
Volume/Cap:  0.64 xxxx  0.03  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.04 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Queue:      xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.1 xxxx xxxxx
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx  11.1 xxxx xxxxx
LOS by Move:   *    *     *     *    *     *     *    *     *     B    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx   65 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  2.9 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd StpDel:xxxxx  135 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    F     *     *    *     *     *    *     *     *    *     *
ApproachDel:     134.9           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:       F               *                *                *
```

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May 25, 2011 ,Wednesday 01:27:11 PM

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INTERSECTION DATA SUMMARY SHEET

N/S: Wesley Avenue/Driveway W/E: Washington Boulevard I/S No: 21

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

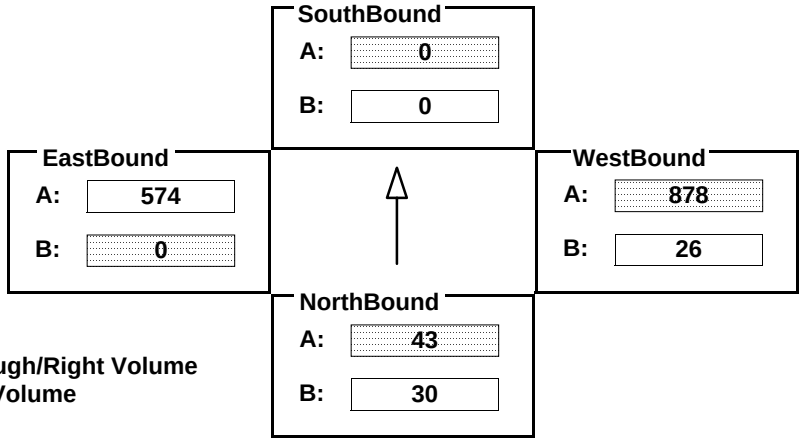
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	30	0	13	0	0	0	26	1756	0	0	1112	36
AMBIENT												
RELATED												
PROJECT												
TOTAL	30	0	13	0	0	0	26	1756	0	0	1112	36

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	0	0	0	1	0	0	0	0	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	0	0	0	0	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	<none>	<none>	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{43 + 0 + 878 + 0}{1200} = 0.768$$

LOS = C

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May 25, 2011 ,Wednesday 01:27:11 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Helms Avenue W/E: Washington Boulevard I/S No: 22

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

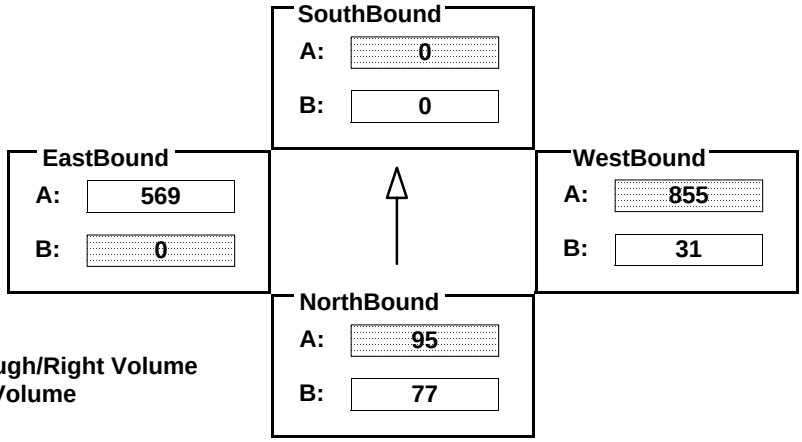
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	77	0	18	0	0	0	31	1710	0	0	1098	40
AMBIENT												
RELATED												
PROJECT												
TOTAL	77	0	18	0	0	0	31	1710	0	0	1098	40

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	0	0	0	1	0	0	0	0	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	0	0	0	0	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	<none>	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{95 + 0 + 855 + 0}{*1500} = 0.563$$

LOS = A

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```
Default Scenario           Wed May 25, 2011 14:47:01                Page 5-1
------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #23 CATTARAUGUS AV/WASHINGTON AV [CUMULATIVE (2014) BASE AM]
******************************************************************************
Average Delay (sec/veh):    265.8   Worst Case Level Of Service:       F[5720.0]
******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  1  0    0  1  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       9    5     3    89    6    54    50  982     6     3 1713   330
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    9    5     3    89    6    54    50  982     6     3 1713   330
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     9    5     3    89    6    54    50  982     6     3 1713   330
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Final Vol.:     9    5     3    89    6    54    50  982     6     3 1713   330
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  7.5  6.5   6.9   7.5  6.5   6.9   4.1 xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3   3.5  4.0   3.3   2.2 xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1951 3134   494  2478 2972  1022  2043 xxxx xxxxx   988 xxxx xxxxx
Potent Cap.:   39   11   526    16   14   237   280 xxxx xxxxx   708 xxxx xxxxx
Move Cap.:     16    9   526     8   12   237   280 xxxx xxxxx   708 xxxx xxxxx
Volume/Cap:  0.57 0.55  0.01 11.61 0.51  0.23  0.18 xxxx  xxxx  0.00 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Queue:      xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.6 xxxx xxxxx   0.0 xxxx xxxxx
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  20.7 xxxx xxxxx  10.1 xxxx xxxxx
LOS by Move:   *    *     *     *    *     *     C    *     *     B    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx   15 xxxxx  xxxx   12 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  2.6 xxxxx xxxxx 19.9 xxxxx   0.6 xxxx xxxxx   0.0 xxxx xxxxx
Shrd StpDel:xxxxx  618 xxxxx xxxxx 5720 xxxxx  20.7 xxxx xxxxx  10.1 xxxx xxxxx
Shared LOS:    *    F     *     *    F     *     C    *     *     B    *     *
ApproachDel:     618.3           5720.0           xxxxxx           xxxxxx
ApproachLOS:       F               F                *                *
```

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INTERSECTION DATA SUMMARY SHEET

N/S: Cattaraugus Avenue W/E: Washington Boulevard I/S No: 23

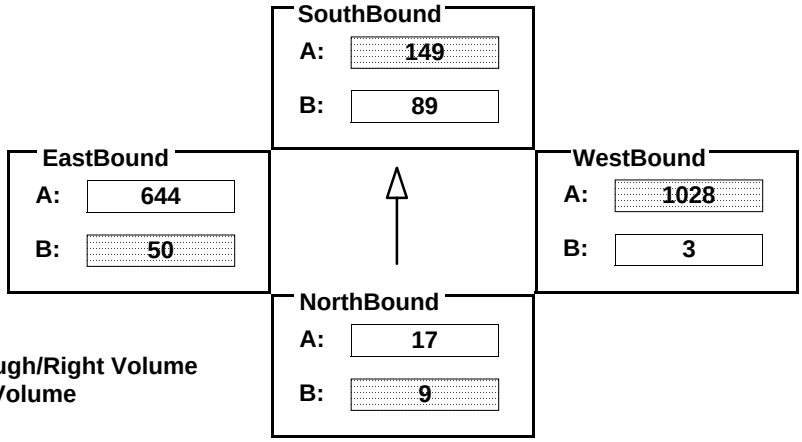
AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	9	5	3	89	6	54	3	1713	330	50	982	6
AMBIENT												
RELATED												
PROJECT												
TOTAL	9	5	3	89	6	54	3	1713	330	50	982	6
LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	1	0	0
	Phasing		RTOR		Phasing		RTOR		Phasing		RTOR		Phasing		RTOR	
SIGNAL	Perm		Auto		Perm		Auto		Perm		Auto		Perm		Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{9 + 149 + 1028 + 50}{1200} = 1.030$$

LOS = F

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May 25, 2011 ,Wednesday 01:27:11 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Washington Boulevard I/S No: 24

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

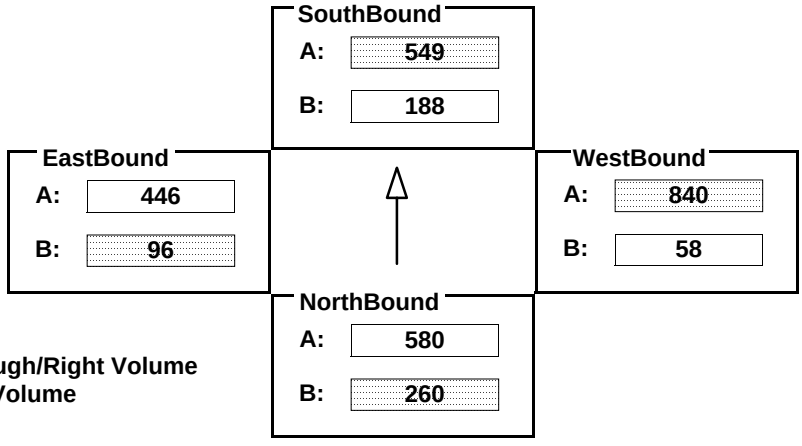
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	260	1718	21	188	1591	56	58	1679	252	96	892	122
AMBIENT												
RELATED												
PROJECT												
TOTAL	260	1718	21	188	1591	56	58	1679	252	96	892	122

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	0	1	0	1	0	2	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{260 + 549 + 840 + 96}{*1375} = 1.199$$

LOS = F

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CBASEAM

May 25, 2011 ,Wednesday 01:27:11 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Fairfax Avenue I/S No: 25

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

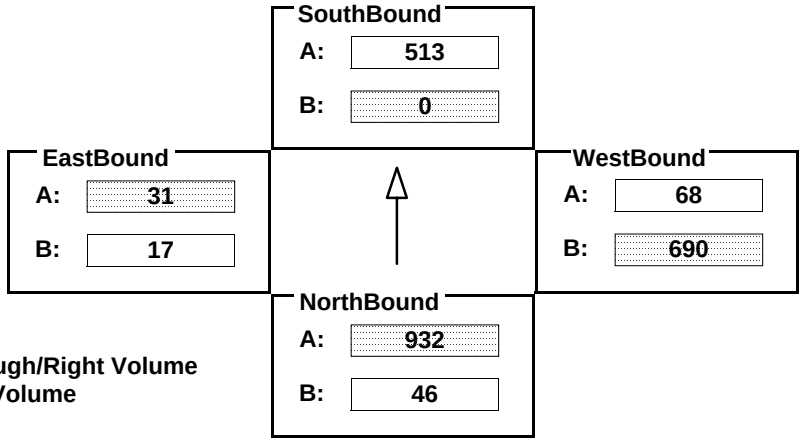
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	46	1863	978	0	1495	43	1255	37	31	17	2	12
AMBIENT												
RELATED												
PROJECT												
TOTAL	46	1863	978	0	1495	43	1255	37	31	17	2	12

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	2	0	0	0	2	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	2	0	0	0	1	0	0	0	0	0	1	0	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Free	Perm	Auto	Split	Auto	Split	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{932 + 0 + 690 + 31}{*1425} = 1.090$$

LOS = F

1.090-0.03* = 1.060 LOS F
*ATCS Benefit

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May 25, 2011 ,Wednesday 01:27:11 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Wesley Street W/E: National Boulevard I/S No: 26

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

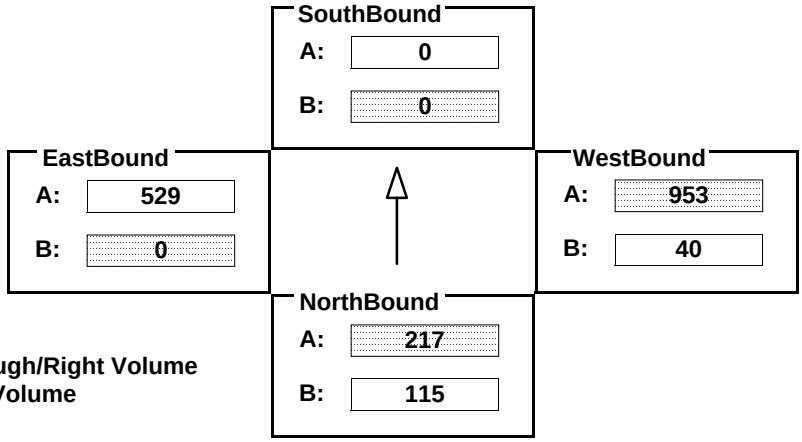
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	115	0	102	0	0	0	40	1906	0	0	1058	87
AMBIENT												
RELATED												
PROJECT												
TOTAL	115	0	102	0	0	0	40	1906	0	0	1058	87

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	0	0	0	1	0	0	0	0	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	0	0	0	0	0	2	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{217 + 0 + 953 + 0}{*1500} = 0.710$$

LOS = C

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May 25, 2011 ,Wednesday 01:27:11 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Hayden Avenue W/E: National Boulevard I/S No: 27

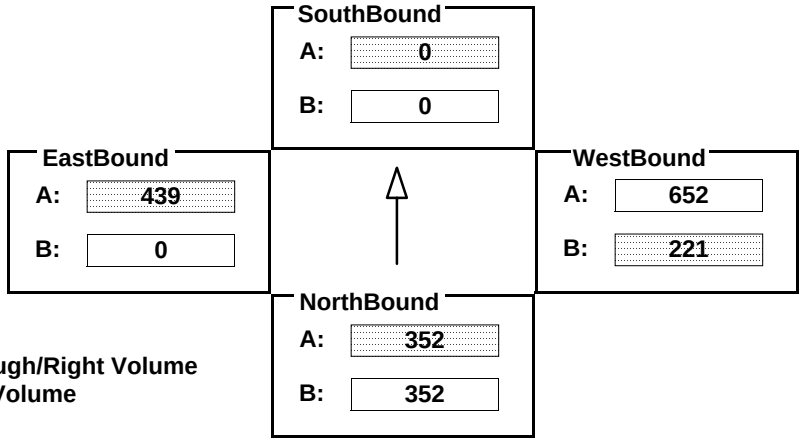
AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	607	0	96	0	0	0	221	1304	0	0	877	275
AMBIENT												
RELATED												
PROJECT												
TOTAL	607	0	96	0	0	0	221	1304	0	0	877	275
LANE	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	2	0	0	1	0
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR																
SIGNAL	Split	Auto	<none>	<none>	Prot-Fix	Auto	Perm	Auto																

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{352 + 0 + 221 + 439}{*1425} = 0.640$$

LOS = B

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May 25, 2011 ,Wednesday 01:27:11 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Jefferson Boulevard W/E: National Boulevard I/S No: 28

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

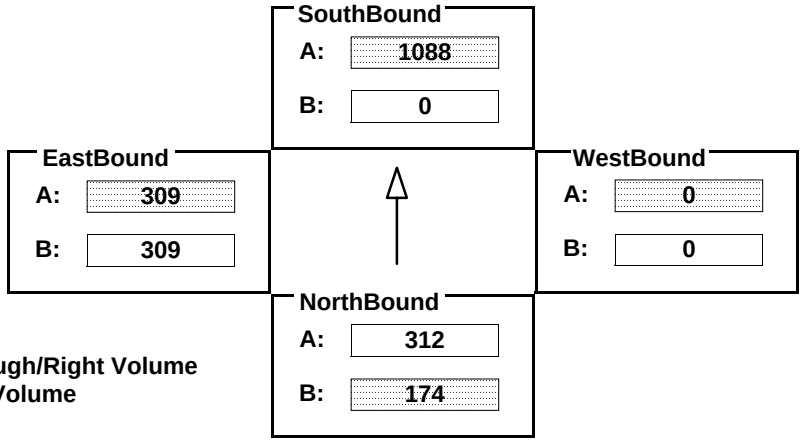
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	174	624	0	0	753	1396	0	0	0	617	0	176
AMBIENT												
RELATED												
PROJECT												
TOTAL	174	624	0	0	753	1396	0	0	0	617	0	176

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	1	0	1	0	1	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	0	0	0	1	0	0	0	1	1	0	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	OLA	Split	Auto	Split	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{174 + 1088 + 0 + 309}{*1425} = 1.032$$

LOS = F

1.032-0.03* = 1.002 LOS F
*ATCS Benefit

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May 25, 2011 ,Wednesday 01:27:11 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Jefferson Boulevard I/S No: 29

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

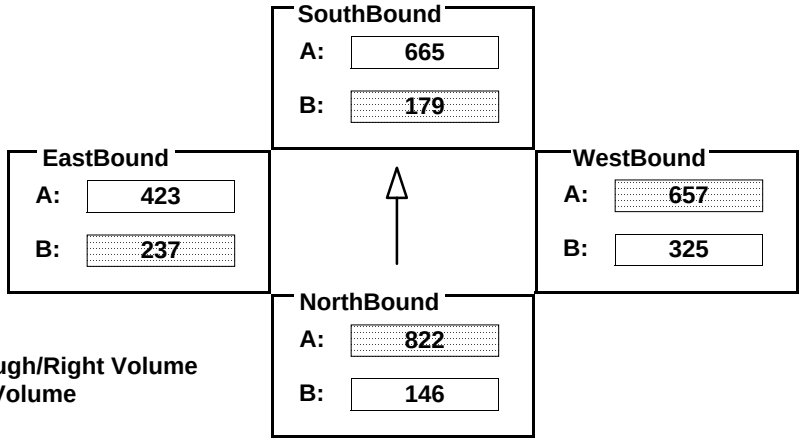
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	146	2351	116	179	1994	643	591	1313	138	430	715	130
AMBIENT												
RELATED												
PROJECT												
TOTAL	146	2351	116	179	1994	643	591	1313	138	430	715	130

LANE	1	0	2	0	1	0	0	1	0	3	0	0	1	0	2	0	2	0	0	1	0	2	0	1	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	OLA	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{822 + 179 + 657 + 237}{*1375} = 1.308$$

LOS = F

1.308-0.03* = 1.278 LOS F
*ATCS Benefit

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May 25, 2011 ,Wednesday 01:27:11 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Jefferson Boulevard W/E: Higuera St/Rodeo Rd I/S No: 30

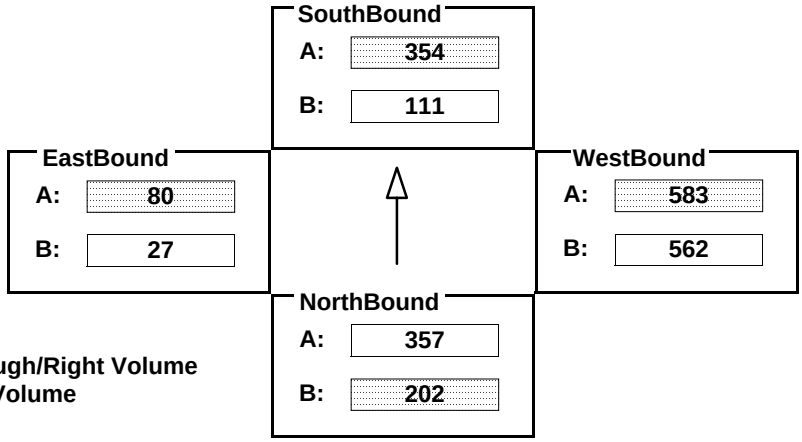
AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	202	713	800	111	707	95	1022	583	147	27	160	51
AMBIENT												
RELATED												
PROJECT												
TOTAL	202	713	800	111	707	95	1022	583	147	27	160	51
LANE	1 0 2 0 0 1 0			1 0 2 0 0 1 0			2 0 1 0 0 1 0			1 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Perm	Auto		Split	Auto		Split	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{202 + 354 + 583 + 80}{*1425} = 0.785$$

LOS = C

0.785-0.03* = 0.755 LOS C
*ATCS Benefit

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May 25, 2011 ,Wednesday 01:27:11 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Rodeo Road I/S No: 31

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

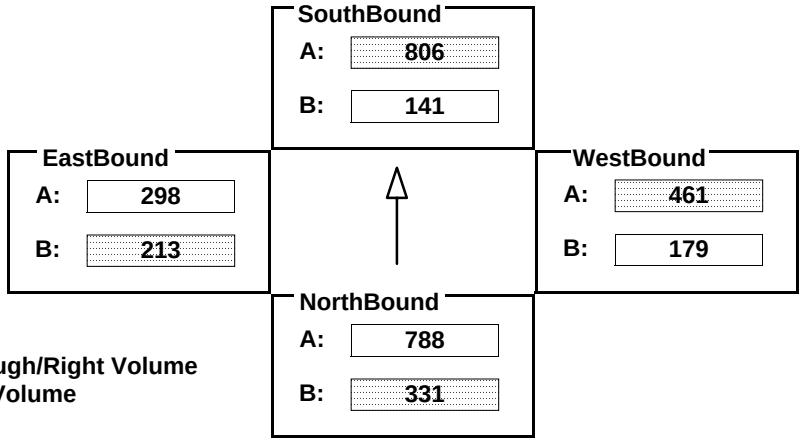
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	601	2268	95	256	2126	291	325	921	329	213	595	228
AMBIENT												
RELATED												
PROJECT												
TOTAL	601	2268	95	256	2126	291	325	921	329	213	595	228

	NORTHBOUND							SOUTHBOUND						
LANE	2	0	2	0	1	0	0	2	0	2	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	2	0	2	0	0	1	0	1	0	2	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Prot-Var	OLA	Prot-Var	OLA

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{331 + 806 + 461 + 213}{*1375} = 1.247$$

LOS = F

1.247-0.03* = 1.217 LOS F
*ATCS Benefit

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```
Default Scenario           Wed May 25, 2011 14:47:01                 Page 7-1
------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
******************************************************************************
Intersection #32 BRADDOCK DR/DUQUESNE AV [CUMULATIVE (2014) BASE AM]
******************************************************************************
Cycle (sec):        100               Critical Vol./Cap. (X):        1.635
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):       227.9
Optimal Cycle:        0               Level Of Service:                  F
******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      90  209   143    30  328    39    48  556    38    56  550    40
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   90  209   143    30  328    39    48  556    38    56  550    40
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    90  209   143    30  328    39    48  556    38    56  550    40
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   90  209   143    30  328    39    48  556    38    56  550    40
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Final Vol.:    90  209   143    30  328    39    48  556    38    56  550    40
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.20 0.48  0.32  0.07 0.83  0.10  0.07 0.87  0.06  0.09 0.85  0.06
Final Sat.:    82  190   130    30  328    39    30  342    23    34  336    24
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     1.10 1.10  1.10  1.00 1.00  1.00  1.62 1.62  1.62  1.64 1.64  1.64
Crit Moves:       ****             ****             ****             ****
Delay/Veh:  105.2  105 105.2  76.3 76.3  76.3 314.6  315 314.6 319.0  319 319.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh: 105.2  105 105.2  76.3 76.3  76.3 314.6  315 314.6 319.0  319 319.0
LOS by Move:   F    F     F     F    F     F     F    F     F     F    F     F
ApproachDel:     105.2            76.3            314.6            319.0
Delay Adj:        1.00            1.00             1.00             1.00
ApprAdjDel:      105.2            76.3            314.6            319.0
LOS by Appr:       F                F                F                F
******************************************************************************
```

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May 25, 2011 ,Wednesday 01:27:11 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Braddock Drive W/E: Duquesne Avenue I/S No: 32

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

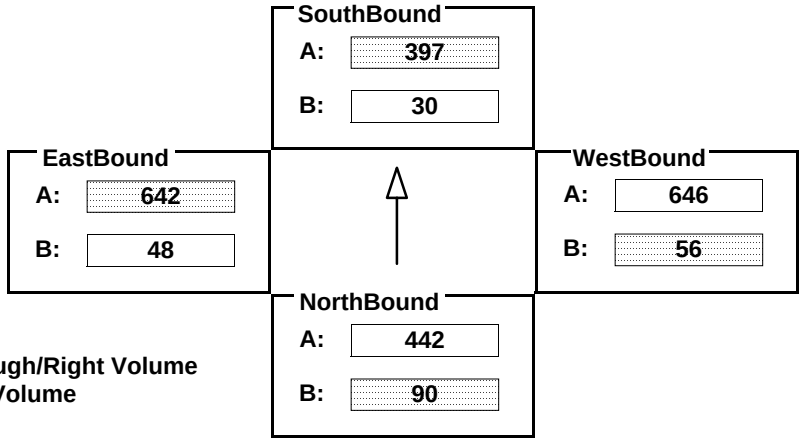
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	90	209	143	30	328	39	56	550	40	48	556	38
AMBIENT												
RELATED												
PROJECT												
TOTAL	90	209	143	30	328	39	56	550	40	48	556	38

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	0

	WESTBOUND							EASTBOUND						
LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{90 + 397 + 56 + 642}{1000} = 1.185$$

LOS = F

Developed by Chun Wong, 12/94

```
Default Scenario           Wed May 25, 2011 14:47:01                 Page 9-1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
*******************************************************************************
Intersection #33 LUCERNE AV/DUQUESNE AV [CUMULATIVE (2014) BASE AM]
*******************************************************************************
Cycle (sec):        100               Critical Vol./Cap. (X):        1.047
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):        51.7
Optimal Cycle:        0               Level Of Service:                  F
*******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0   188    0    63    92  554     0     0  596   352
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0     0   188    0    63    92  554     0     0  596   352
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     0    0     0   188    0    63    92  554     0     0  596   352
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0   188    0    63    92  554     0     0  596   352
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Final Vol.:     0    0     0   188    0    63    92  554     0     0  596   352
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.00 0.00  0.00  0.75 0.00  0.25  0.14 0.86  0.00  0.00 1.00  1.00
Final Sat.:     0    0     0   399    0   134    88  529     0     0  586   661
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     xxxx xxxx  xxxx  0.47 xxxx  0.47  1.05 1.05  xxxx  xxxx 1.02  0.53
Crit Moves:                   ****                   ****            ****
Delay/Veh:    0.0  0.0   0.0  15.6  0.0  15.6  73.0 73.0   0.0   0.0 66.1  14.2
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0  0.0   0.0  15.6  0.0  15.6  73.0 73.0   0.0   0.0 66.1  14.2
LOS by Move:   *    *     *     C    *     C     F    F     *     *    F     B
ApproachDel:    xxxxxx            15.6            73.0            46.8
Delay Adj:       xxxxx            1.00            1.00            1.00
ApprAdjDel:     xxxxxx            15.6            73.0            46.8
LOS by Appr:         *               C               F               E
*******************************************************************************
```

Traffix 7.6.0715 (c) 2003 Dowling Assoc. Licensed to RAJU ASSOC., PASADENA

CBASEAM

May 25, 2011 ,Wednesday 01:27:11 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Lucerne Avenue W/E: Duquesne Avenue I/S No: 33

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

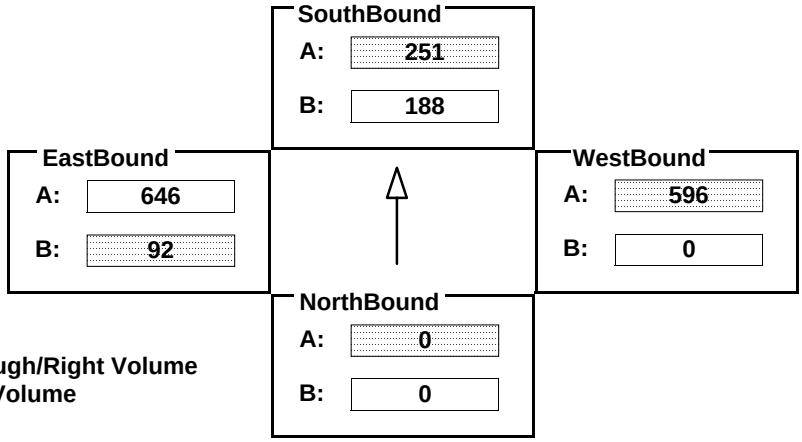
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	188	0	63	0	596	352	92	554	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	188	0	63	0	596	352	92	554	0

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	0	0	0	0	0	0	0	0	0	0	1

	WESTBOUND							EASTBOUND						
LANE	0	0	1	0	0	1	0	0	1	0	0	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	<none>	<none>	Split	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 251 + 596 + 92}{1000} = 0.939$$

LOS = E

Developed by Chun Wong, 12/94

CBASEAM

May 25, 2011 ,Wednesday 01:27:11 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Jefferson Boulevard W/E: Duquesne Avenue I/S No: 34

AM/PM: AM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

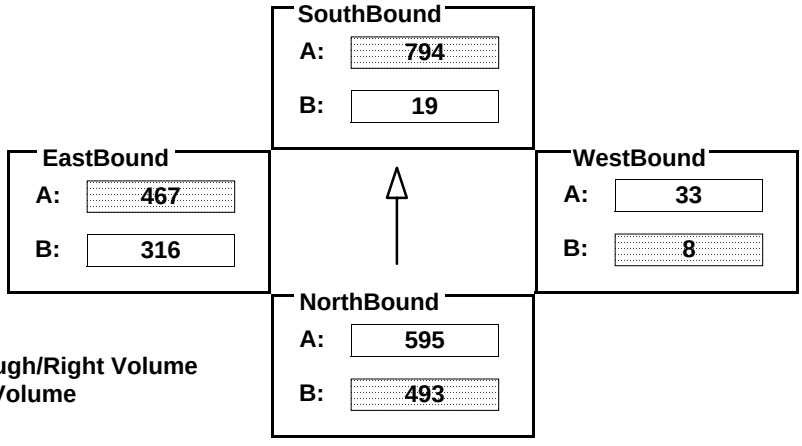
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	493	1162	28	19	1588	440	8	33	6	316	32	435
AMBIENT												
RELATED												
PROJECT												
TOTAL	493	1162	28	19	1588	440	8	33	6	316	32	435

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	1	0	0	1	0	2	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	1	0	1	0	0	1	0	1	0	0	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Perm	OLA	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{493 + 794 + 8 + 467}{*1375} = 1.211$$

LOS = F

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Cumulative (2014) Base Conditions

PM Peak Hour

CBASEPM

May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: Cattaragus Avenue I/S No: 1

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

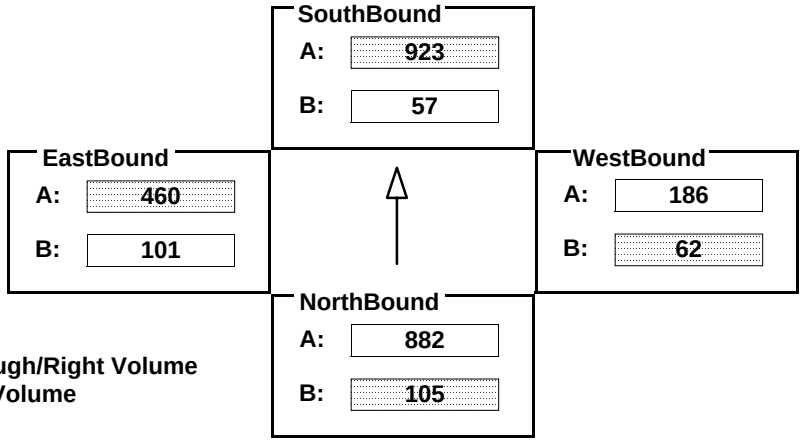
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	105	1748	15	57	1780	65	62	81	43	101	231	128
AMBIENT												
RELATED												
PROJECT												
TOTAL	105	1748	15	57	1780	65	62	81	43	101	231	128

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{105 + 923 + 62 + 460}{*1500} = 0.963$$

LOS = E

0.963-0.03* = 0.933 LOS E
*ATCS Benefit

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CBASEPM

May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: I-10 WB Off-Ramp/Kincardine Av I/S No: 2

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

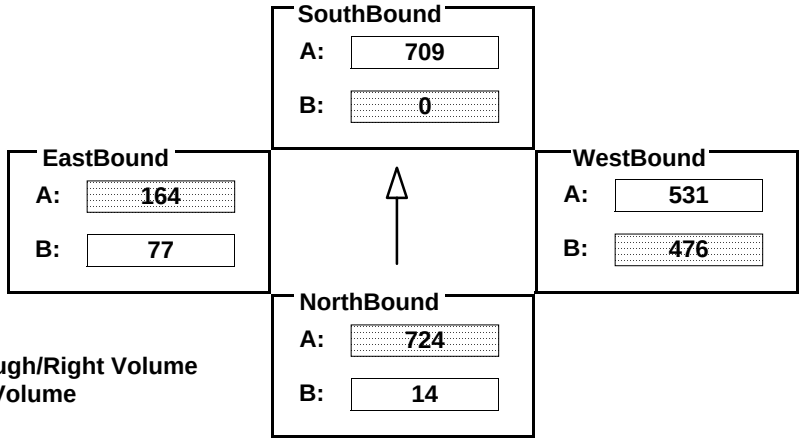
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	14	1448	0	0	1382	35	476	23	562	77	0	87
AMBIENT												
RELATED												
PROJECT												
TOTAL	14	1448	0	0	1382	35	476	23	562	77	0	87

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	0	0	0	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	0	0	0	1	0	1	0	0	0	0	0	0	0	1

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{724 + 0 + 476 + 164}{*1500} = 0.839$$

LOS = D

0.839-0.03* = 0.809 LOS D
*ATCS Benefit

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CBASEPM

May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: National Boulevard I/S No: 3

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

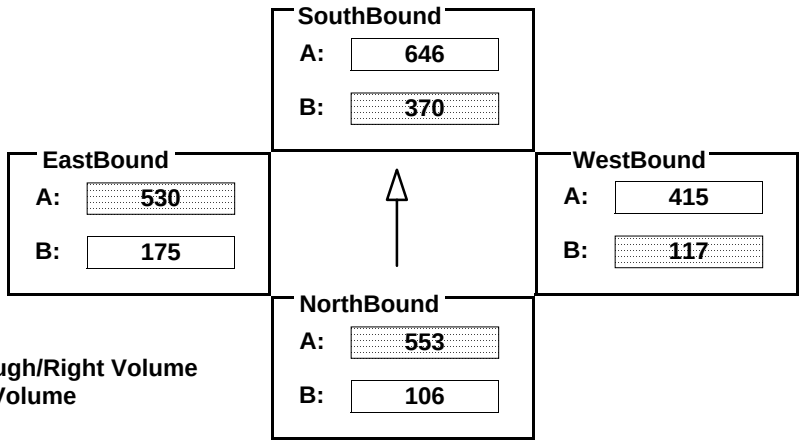
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	106	948	158	673	1056	235	117	415	278	175	920	140
AMBIENT												
RELATED												
PROJECT												
TOTAL	106	948	158	673	1056	235	117	415	278	175	920	140

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	1	0	0	2	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	Auto	Perm	OLA	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{553 + 370 + 117 + 530}{*1375} = 1.072$$

LOS = F

1.072-0.03* = 1.042 LOS F
*ATCS Benefit

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CBASEPM

May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: National Boulevard W/E: I-10 EB On-Ramp I/S No: 4

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

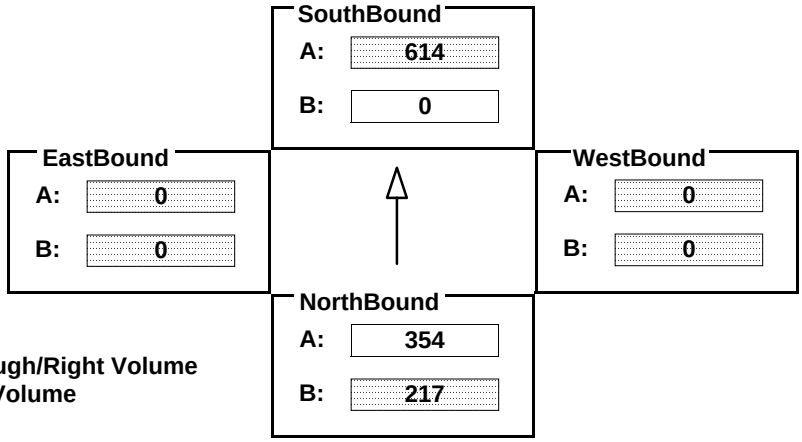
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	217	708	0	0	1132	614	0	0	0	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	217	708	0	0	1132	614	0	0	0	0	0	0

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	0	0	0	0	2	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Perm	Auto	<none>	<none>	<none>	<none>

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = +

$$V/C = \frac{217 + 614 + +}{*1500} = 0.484$$

LOS = A

0.484-0.03* = 0.454 LOS A
*ATCS Benefit

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CBASEPM

May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Hughes Avenue W/E: Venice Boulevard I/S No: 5

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

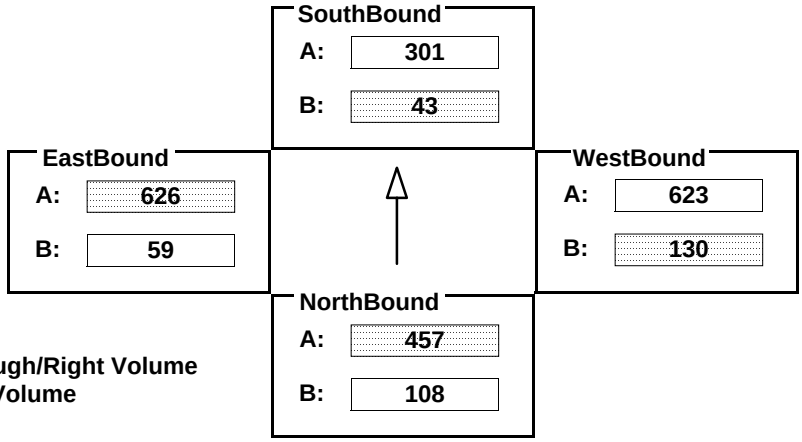
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	108	217	132	43	204	54	130	1869	45	59	1877	101
AMBIENT												
RELATED												
PROJECT												
TOTAL	108	217	132	43	204	54	130	1869	45	59	1877	101

LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	3	0	0	1	0	1	0	3	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{457 + 43 + 130 + 626}{*1500} = 0.767$$

LOS = C

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CBASEPM

May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Bagley Avenue W/E: Venice Boulevard I/S No: 6

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

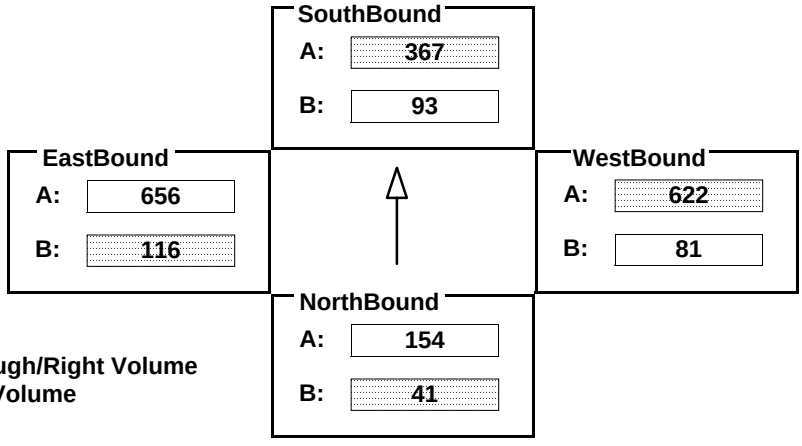
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	41	108	46	93	174	100	81	1866	73	116	1859	110
AMBIENT												
RELATED												
PROJECT												
TOTAL	41	108	46	93	174	100	81	1866	73	116	1859	110

LANE	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	3	0	0	1	0	1	0	2	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{41 + 367 + 622 + 116}{*1375} = 0.763$$

LOS = C

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CBASEPM

May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Culver Boulevard W/E: Venice Boulevard I/S No: 7

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

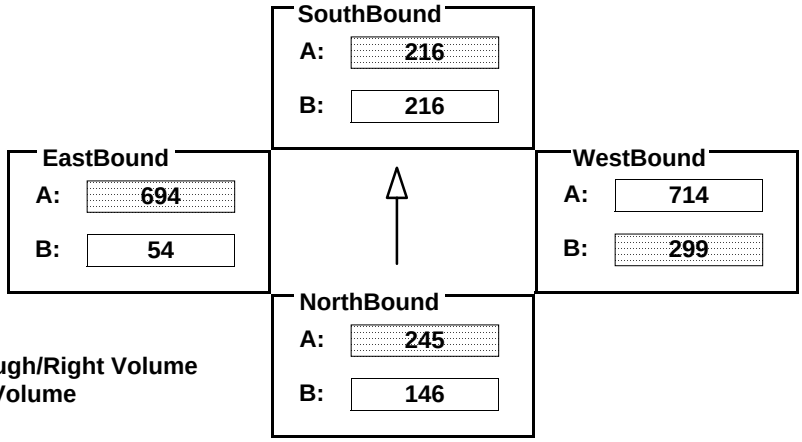
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	146	83	988	308	74	49	543	1928	214	54	1984	99
AMBIENT												
RELATED												
PROJECT												
TOTAL	146	83	988	308	74	49	543	1928	214	54	1984	99

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	0	2	0	1	0	0	1	0	0	0

	WESTBOUND							EASTBOUND						
LANE	2	0	2	0	1	0	0	1	0	2	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	OLA	Split	Auto	Prot-Fix	Auto	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{245 + 216 + 299 + 694}{*1375} = 0.987$$

LOS = E

0.987-0.03* = 0.957 LOS E
*ATCS Benefit

Developed by Chun Wong, 12/94

CBASEPM

May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: Venice Boulevard I/S No: 8

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

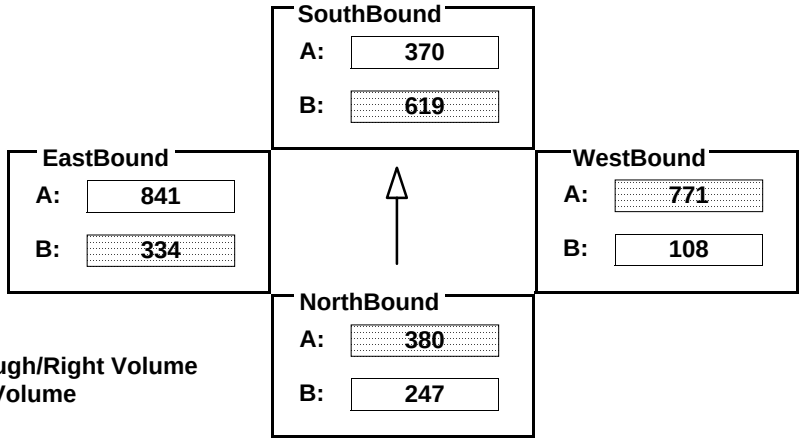
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	247	759	67	619	370	259	108	2165	147	607	2354	170
AMBIENT												
RELATED												
PROJECT												
TOTAL	247	759	67	619	370	259	108	2165	147	607	2354	170

LANE	1	0	2	0	0	1	0	0	1	1	0	0	1	0	1	0	2	0	1	0	0	2	0	2	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	OLA	Split	Auto	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{380 + 619 + 771 + 334}{*1375} = 1.460$$

LOS = F

1.460-0.03* = 1.430 LOS F
*ATCS Benefit

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May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: National Boulevard W/E: Venice Boulevard I/S No: 9

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

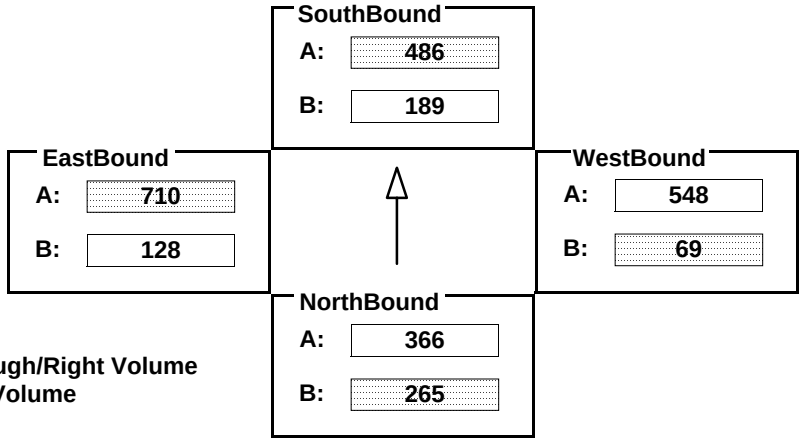
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	265	629	102	189	847	125	126	1644	66	233	2131	538
AMBIENT												
RELATED												
PROJECT												
TOTAL	265	629	102	189	847	125	126	1644	66	233	2131	538

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	2	0	3	0	0	1	0	2	0	3	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	Auto	Prot-Fix	Auto	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{265 + 486 + 69 + 710}{*1375} = 1.043$$

LOS = F

1.043-0.03* = 1.013 LOS F
*ATCS Benefit

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May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Helms Avenue W/E: Venice Boulevard I/S No: 10

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

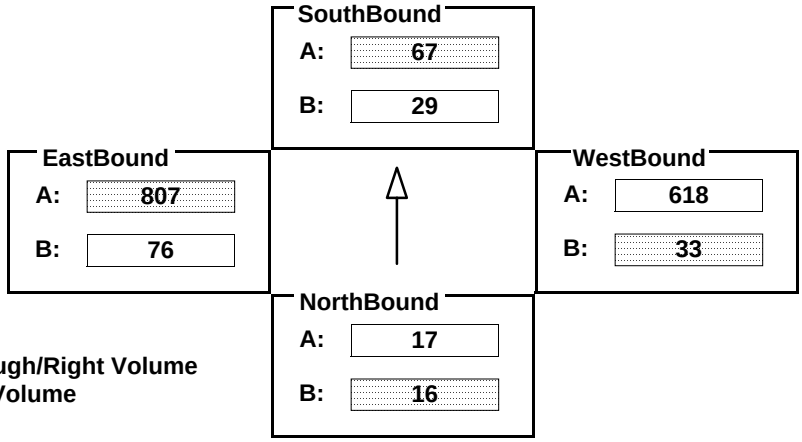
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	16	1	10	29	9	29	33	1847	8	76	2388	34
AMBIENT												
RELATED												
PROJECT												
TOTAL	16	1	10	29	9	29	33	1847	8	76	2388	34

	NORTHBOUND							SOUTHBOUND						
LANE	0	1	0	0	0	1	0	0	0	0	1	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{16 + 67 + 33 + 807}{*1500} = 0.545$$

LOS = A

0.545-0.03* = 0.515 LOS A
*ATCS Benefit

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May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Cattaraugus Avenue W/E: Venice Boulevard I/S No: 11

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

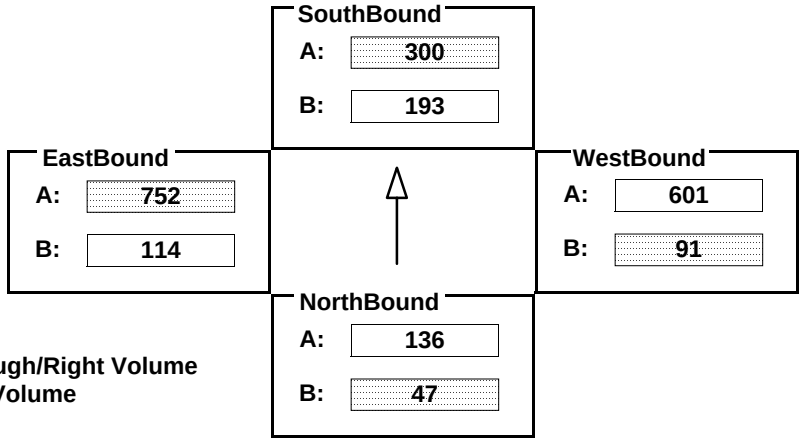
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	47	64	25	193	75	32	91	1723	79	114	2243	13
AMBIENT												
RELATED												
PROJECT												
TOTAL	47	64	25	193	75	32	91	1723	79	114	2243	13

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{47 + 300 + 91 + 752}{*1500} = 0.723$$

LOS = C

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CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Venice Boulevard I/S No: 12

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

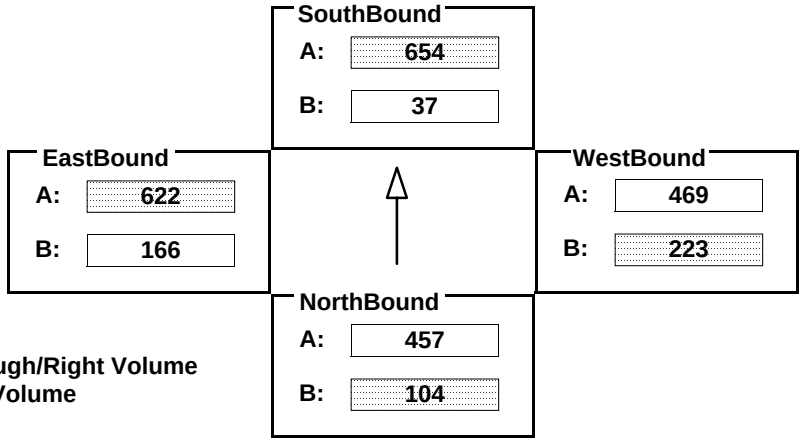
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	104	1254	116	37	1618	344	223	1407	35	302	1865	249
AMBIENT												
RELATED												
PROJECT												
TOTAL	104	1254	116	37	1618	344	223	1407	35	302	1865	249

LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0	1	0	3	0	0	1	0	2	0	3	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{104 + 654 + 223 + 622}{*1375} = 1.096$$

LOS = F

1.096-0.03* = 1.066 LOS F
*ATCS Benefit

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May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Hughes Av/Duquesne Av W/E: Washington Boulevard I/S No: 13

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

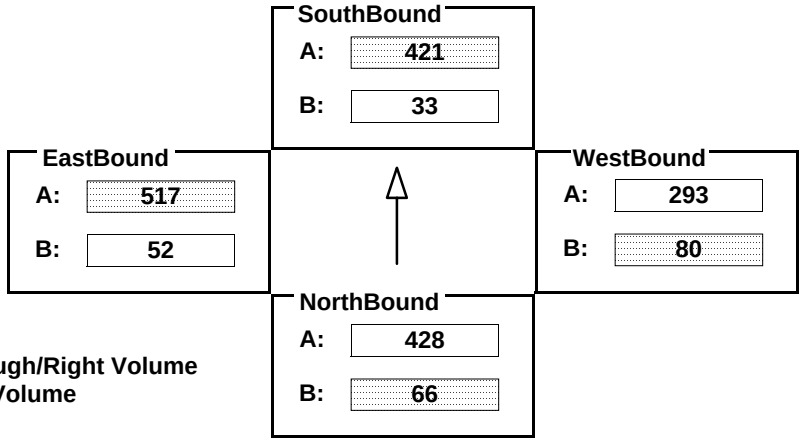
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	66	407	21	33	352	69	80	534	52	52	793	240
AMBIENT												
RELATED												
PROJECT												
TOTAL	66	407	21	33	352	69	80	534	52	52	793	240

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	0	0	1	0	0	1	0	0	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{66 + 421 + 80 + 517}{*1500} = 0.653$$

LOS = B

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May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Duquesne Avenue W/E: Culver Boulevard I/S No: 14

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

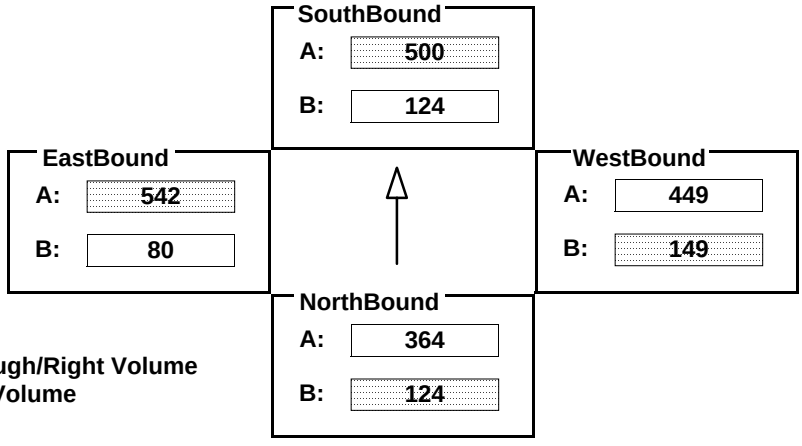
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	124	364	194	124	500	82	149	874	23	80	987	97
AMBIENT												
RELATED												
PROJECT												
TOTAL	124	364	194	124	500	82	149	874	23	80	987	97

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	0	1	0	1	0	1	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{124 + 500 + 149 + 542}{*1375} = 0.886$$

LOS = D

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May 25, 2011 ,Wednesday 02:46:17 PM

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INTERSECTION DATA SUMMARY SHEET

N/S: Culver Boulevard W/E: Washington Bl/Irving Pl I/S No: 15

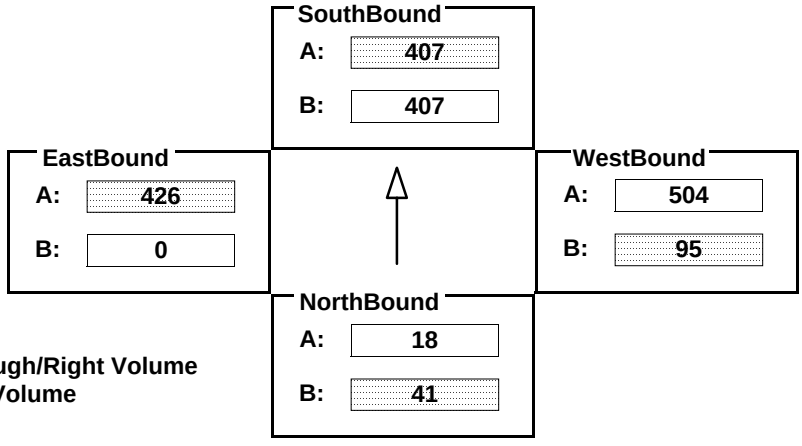
AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	41	0	66	807	0	6	95	1008	661	0	1217	60
AMBIENT									-407			
RELATED												
PROJECT												
TOTAL	41	0	66	807	0	6	95	1008	254	0	1217	60
LANE	1 0 0 0 0 1 0			1 0 0 0 0 0 1			1 0 1 0 1 1 0			0 0 2 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	Auto		Split	Auto		Prot-Fix	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{41 + 407 + 95 + 426}{*1375} = 0.635$$

LOS = B

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May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Main Street W/E: Culver Boulevard I/S No: 16

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

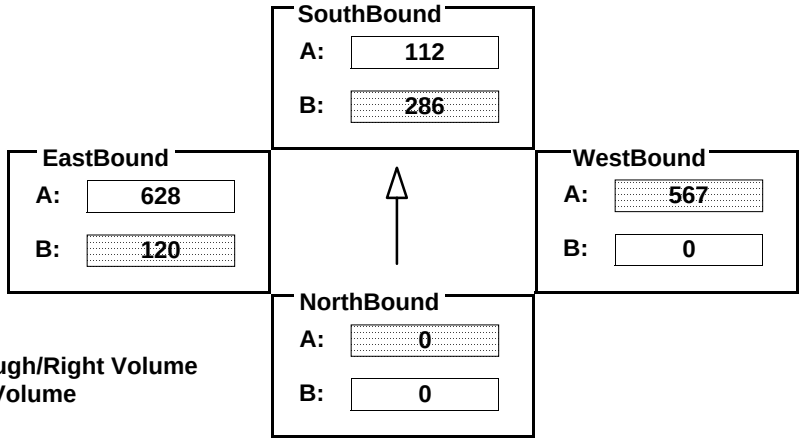
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	286	0	172	0	1583	119	120	1883	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	286	0	172	0	1583	119	120	1883	0

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	0	0	0	0	1	0	0	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	0	0	2	0	1	0	0	1	0	3	0	0	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	<none>	<none>	Split	Auto	Perm	Auto	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 286 + 567 + 120}{*1425} = 0.613$$

LOS = B

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May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Culver Boulevard W/E: Washington Bl/Canfield Av I/S No: 17

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

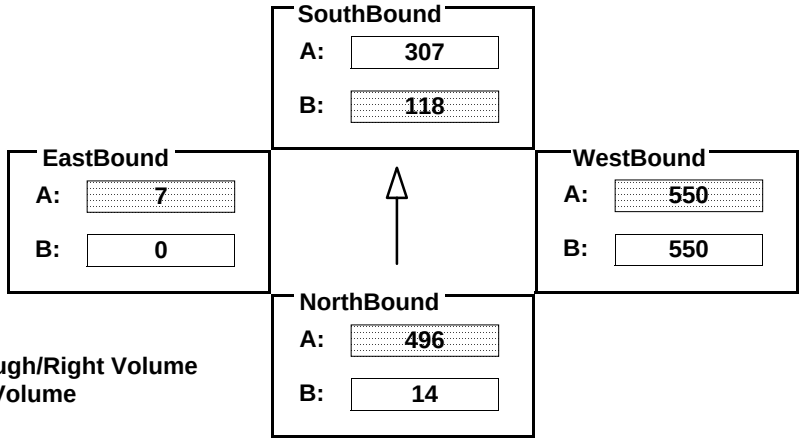
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	14	991	1097	118	605	9	1069	30	219	0	0	21
AMBIENT												
RELATED												
PROJECT												
TOTAL	14	991	1097	118	605	9	1069	30	219	0	0	21

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	2	0	1	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	1	0	0	0	1	0	0	0	0	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	OLA	Prot-Fix	Auto	Split	Auto	<none>	OLA

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{496 + 118 + 550 + 7}{*1425} = 0.752$$

LOS = C

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May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Bl/Higuera St W/E: Washington Boulevard I/S No: 18

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

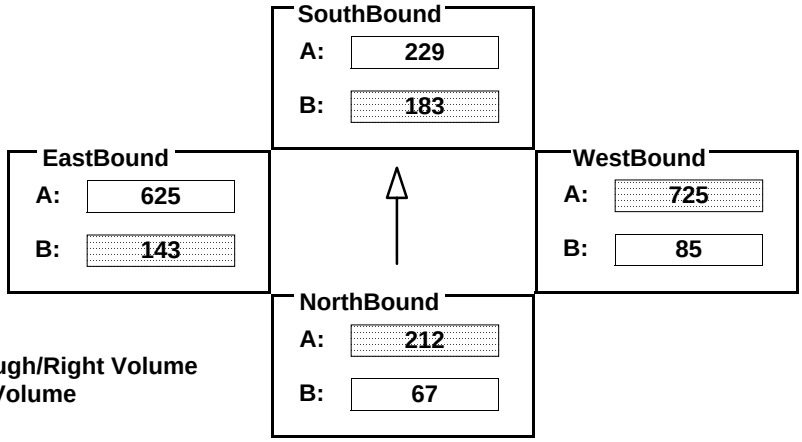
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	67	212	86	183	229	191	85	989	460	143	1156	93
AMBIENT												
RELATED												
PROJECT												
TOTAL	67	212	86	183	229	191	85	989	460	143	1156	93

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	0	1	0	1	0	1	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{212 + 183 + 725 + 143}{*1425} = 0.816$$

LOS = D

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May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Landmark Street W/E: Washington Boulevard I/S No: 19

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

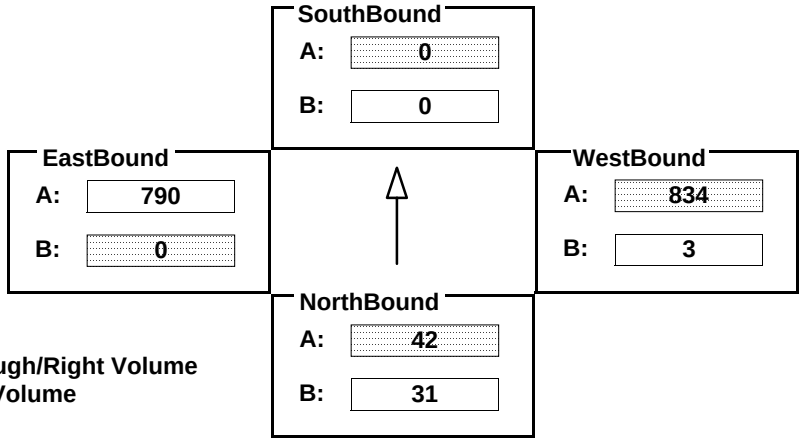
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	31	0	42	0	0	0	3	1667	0	0	1574	6
AMBIENT												
RELATED												
PROJECT												
TOTAL	31	0	42	0	0	0	3	1667	0	0	1574	6

LANE	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	1	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{42 + 0 + 834 + 0}{*1500} = 0.514$$

LOS = A

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CBASEPM

May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: National Boulevard W/E: Washington Boulevard I/S No: 20

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

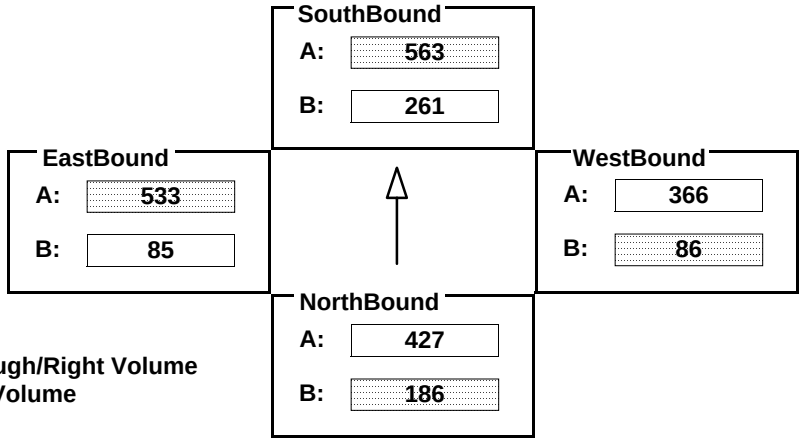
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	338	730	123	475	1067	58	86	885	213	85	1066	303
AMBIENT												
RELATED												
PROJECT												
TOTAL	338	730	123	475	1067	58	86	885	213	85	1066	303

	NORTHBOUND							SOUTHBOUND						
LANE	2	0	1	0	1	0	0	2	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	1	0	0	1	0	2	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{186 + 563 + 86 + 533}{*1375} = 0.925$$

LOS = E

Developed by Chun Wong, 12/94

```
Default Scenario           Wed May 25, 2011 14:47:01                Page 11-1
------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #211 WESLEY AV/WASHINGTON BL [CUMULATIVE (2014) BASE PM]
******************************************************************************
Average Delay (sec/veh):     15.2   Worst Case Level Of Service:       F[484.0]
******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    1  0  2  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      54    0    33     0    0     0     0 1578    34    44 1065     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   54    0    33     0    0     0     0 1578    34    44 1065     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    54    0    33     0    0     0     0 1578    34    44 1065     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Final Vol.:    54    0    33     0    0     0     0 1578    34    44 1065     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8 xxxx   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5 xxxx   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 2216 xxxx   806  xxxx xxxx xxxxx  xxxx xxxx xxxxx  1612 xxxx xxxxx
Potent Cap.:   38 xxxx   329  xxxx xxxx xxxxx  xxxx xxxx xxxxx   410 xxxx xxxxx
Move Cap.:     35 xxxx   329  xxxx xxxx xxxxx  xxxx xxxx xxxxx   410 xxxx xxxxx
Volume/Cap:  1.54 xxxx  0.10  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.11 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Queue:      xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.4 xxxx xxxxx
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx  14.8 xxxx xxxxx
LOS by Move:   *    *     *     *    *     *     *    *     *     B    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx   53 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  8.2 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd StpDel:xxxxx  484 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    F     *     *    *     *     *    *     *     *    *     *
ApproachDel:     484.0           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:       F               *                *                *
```

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CBASEPM

May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Wesley Avenue/Driveway W/E: Washington Boulevard I/S No: 21

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

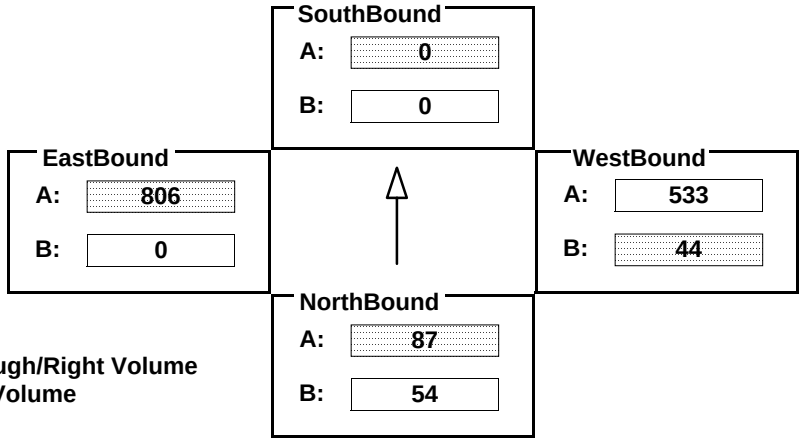
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	54	0	33	0	0	0	44	1065	0	0	1578	34
AMBIENT												
RELATED												
PROJECT												
TOTAL	54	0	33	0	0	0	44	1065	0	0	1578	34

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	0	0	0	1	0	0	0	0	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	0	0	0	0	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	<none>	<none>	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{87 + 0 + 44 + 806}{1200} = 0.781$$

LOS = C

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CBASEPM

May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Helms Avenue W/E: Washington Boulevard I/S No: 22

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

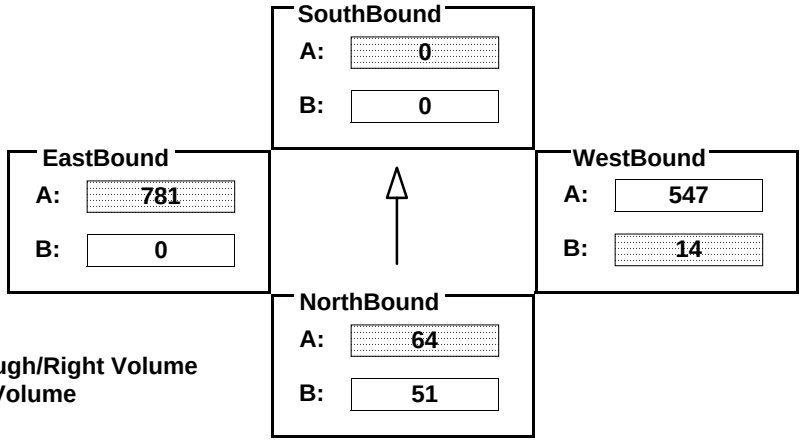
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	51	0	13	0	0	0	14	1094	0	0	1530	31
AMBIENT												
RELATED												
PROJECT												
TOTAL	51	0	13	0	0	0	14	1094	0	0	1530	31

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	0	0	0	1	0	0	0	0	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	0	0	0	0	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	<none>	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{64 + 0 + 14 + 781}{*1500} = 0.503$$

LOS = A

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```
Default Scenario           Wed May 25, 2011 14:47:01                Page 13-1
------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #231 CATTARAUGUS AV/WASHINGTON AV [CUMULATIVE (2014) BASE PM]
******************************************************************************
Average Delay (sec/veh):     28.8   Worst Case Level Of Service:       F[709.6]
******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  1  0    0  1  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       4    2     3    60    2    48    68 1487     9    11 1034    77
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    4    2     3    60    2    48    68 1487     9    11 1034    77
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     4    2     3    60    2    48    68 1487     9    11 1034    77
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Final Vol.:     4    2     3    60    2    48    68 1487     9    11 1034    77
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  7.5  6.5   6.9   7.5  6.5   6.9   4.1 xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3   3.5  4.0   3.3   2.2 xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 2168 2761   748  1975 2727   556  1111 xxxx xxxxx  1496 xxxx xxxxx
Potent Cap.:   27   20   359    38   21   480   636 xxxx xxxxx   454 xxxx xxxxx
Move Cap.:     20   17   359    31   18   480   636 xxxx xxxxx   454 xxxx xxxxx
Volume/Cap:  0.20 0.12  0.01  1.96 0.11  0.10  0.11 xxxx  xxxx  0.02 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Queue:      xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.4 xxxx xxxxx   0.1 xxxx xxxxx
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  11.3 xxxx xxxxx  13.1 xxxx xxxxx
LOS by Move:   *    *     *     *    *     *     B    *     *     B    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx   28 xxxxx  xxxx   51 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  1.0 xxxxx xxxxx 11.1 xxxxx   0.4 xxxx xxxxx   0.1 xxxx xxxxx
Shrd StpDel:xxxxx  188 xxxxx xxxxx  710 xxxxx  11.3 xxxx xxxxx  13.1 xxxx xxxxx
Shared LOS:    *    F     *     *    F     *     B    *     *     B    *     *
ApproachDel:     188.4            709.6           xxxxxx           xxxxxx
ApproachLOS:       F                F               *                *
```

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May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Cattaraugus Avenue W/E: Washington Boulevard I/S No: 23

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

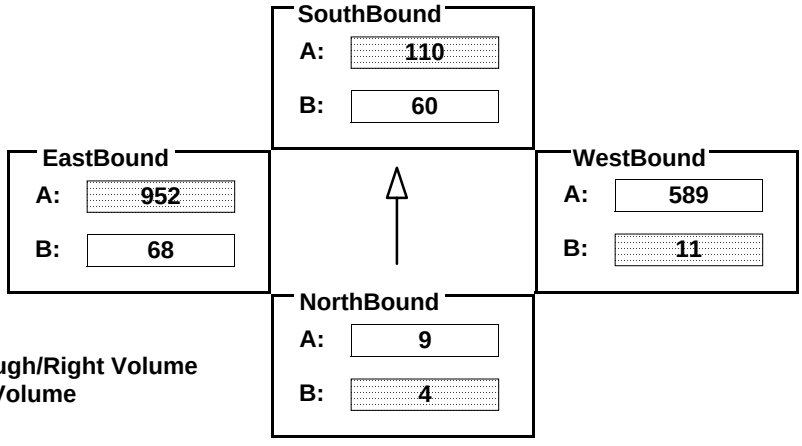
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	4	2	3	60	2	48	11	1034	77	68	1487	9
AMBIENT												
RELATED												
PROJECT												
TOTAL	4	2	3	60	2	48	11	1034	77	68	1487	9

LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0	1	0	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{4 + 110 + 11 + 952}{1200} = 0.898$$

LOS = D

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CBASEPM

May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Washington Boulevard I/S No: 24

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

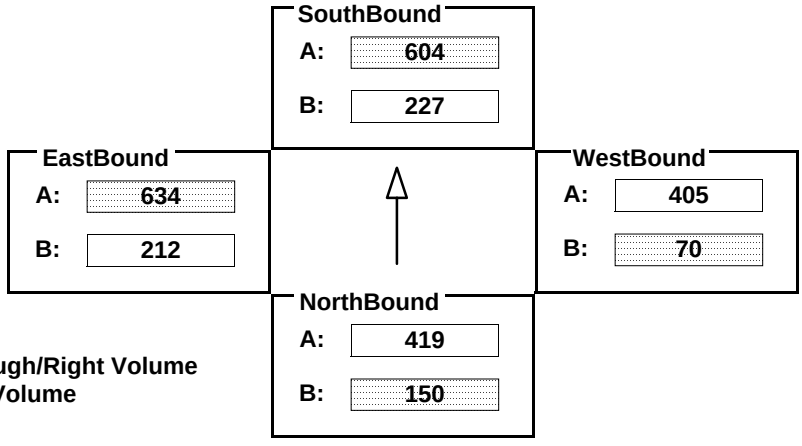
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	150	1200	58	227	1755	56	70	809	127	212	1268	157
AMBIENT												
RELATED												
PROJECT												
TOTAL	150	1200	58	227	1755	56	70	809	127	212	1268	157

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	0	1	0	1	0	2	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{150 + 604 + 70 + 634}{*1375} = 0.990$$

LOS = E

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CBASEPM

May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Fairfax Avenue I/S No: 25

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

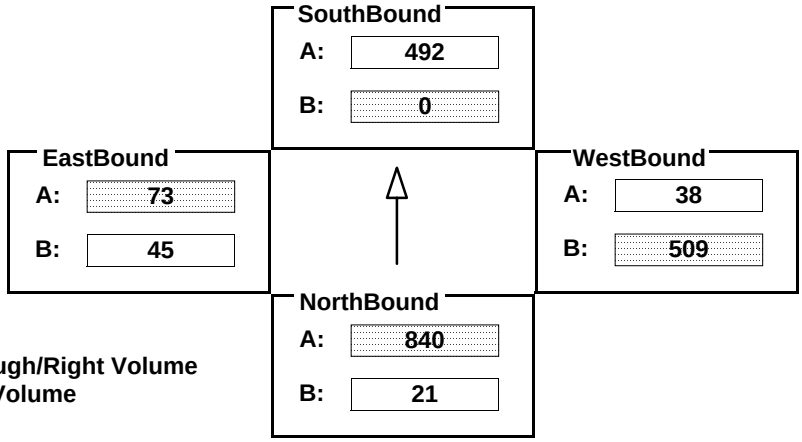
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	21	1679	1460	0	1450	27	926	19	19	45	4	24
AMBIENT												
RELATED												
PROJECT												
TOTAL	21	1679	1460	0	1450	27	926	19	19	45	4	24

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	2	0	0	0	2	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	2	0	0	0	1	0	0	0	0	0	1	0	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Free	Perm	Auto	Split	Auto	Split	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{840 + 0 + 509 + 73}{*1425} = 0.928$$

LOS = E

0.928-0.03* = 0.898 LOS D
*ATCS Benefit

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CBASEPM

May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Wesley Street W/E: National Boulevard I/S No: 26

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

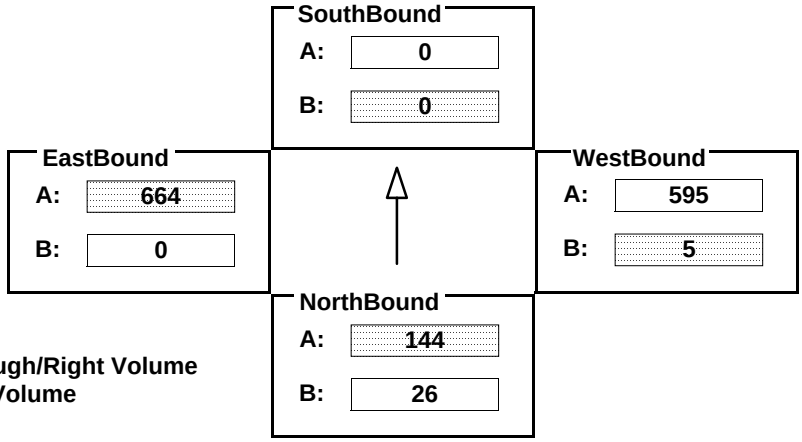
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	26	0	118	0	0	0	5	1190	0	0	1327	5
AMBIENT												
RELATED												
PROJECT												
TOTAL	26	0	118	0	0	0	5	1190	0	0	1327	5

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	0	0	0	1	0	0	0	0	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	0	0	0	0	0	2	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{144 + 0 + 5 + 664}{*1500} = 0.472$$

LOS = A

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CBASEPM

May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Hayden Avenue W/E: National Boulevard I/S No: 27

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

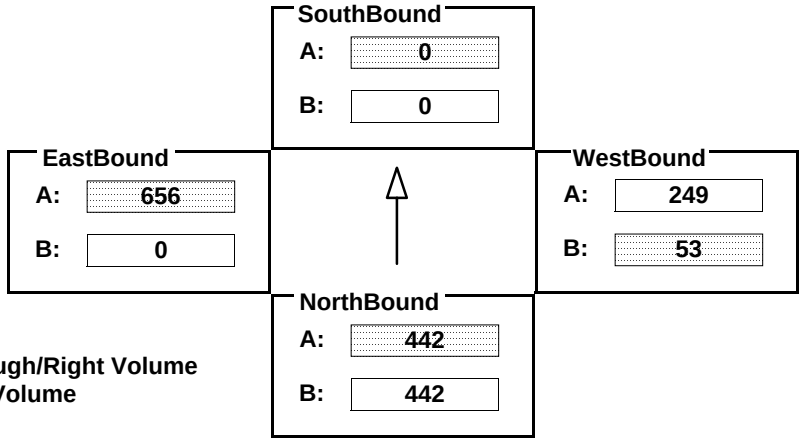
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	687	0	197	0	0	0	53	497	0	0	1312	161
AMBIENT												
RELATED												
PROJECT												
TOTAL	687	0	197	0	0	0	53	497	0	0	1312	161

LANE	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	2	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	<none>	Prot-Fix	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{442 + 0 + 53 + 656}{*1425} = 0.738$$

LOS = C

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CBASEPM

May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Jefferson Boulevard W/E: National Boulevard I/S No: 28

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

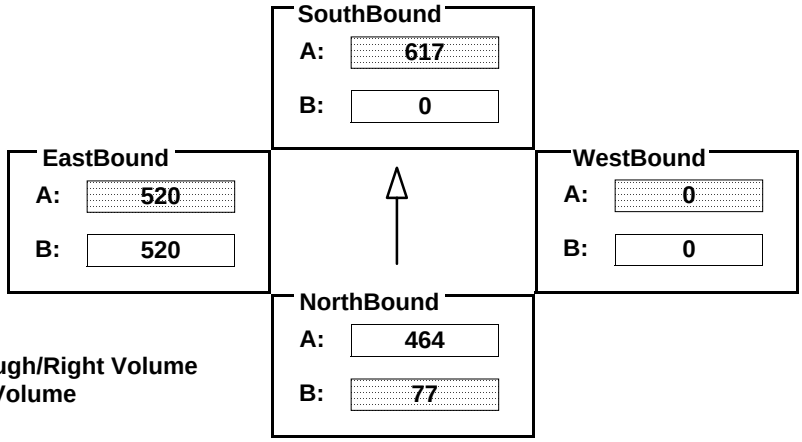
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	77	927	0	0	617	506	0	0	0	1039	0	116
AMBIENT												
RELATED												
PROJECT												
TOTAL	77	927	0	0	617	506	0	0	0	1039	0	116

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	1	0	1	0	1	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	0	0	0	1	0	0	0	1	1	0	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Split	Auto	Split	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{77 + 617 + 0 + 520}{*1425} = 0.782$$

LOS = C

0.782-0.03* = 0.752 LOS C
*ATCS Benefit

Developed by Chun Wong, 12/94

CBASEPM

May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Jefferson Boulevard I/S No: 29

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

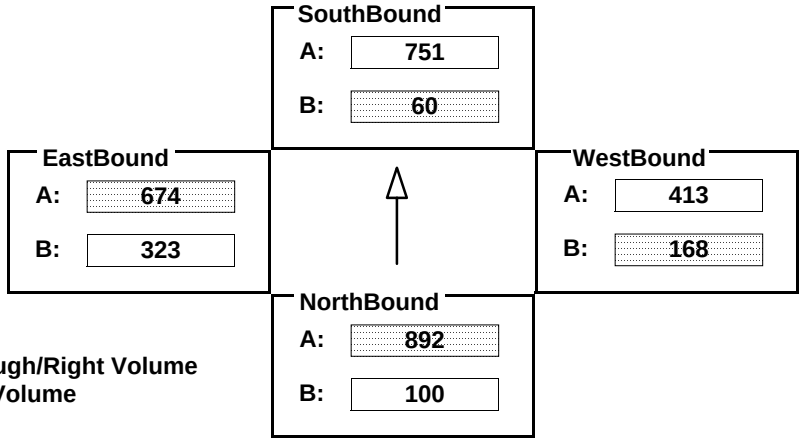
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	100	2360	315	60	2253	245	306	826	102	588	1076	271
AMBIENT												
RELATED												
PROJECT												
TOTAL	100	2360	315	60	2253	245	306	826	102	588	1076	271

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	1	0	0	1	0	3	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	2	0	2	0	0	1	0	2	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	OLA	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{892 + 60 + 168 + 674}{*1375} = 1.235$$

LOS = F

1.235-0.03* = 1.205 LOS F
*ATCS Benefit

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CBASEPM

May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Jefferson Boulevard W/E: Higuera St/Rodeo Rd I/S No: 30

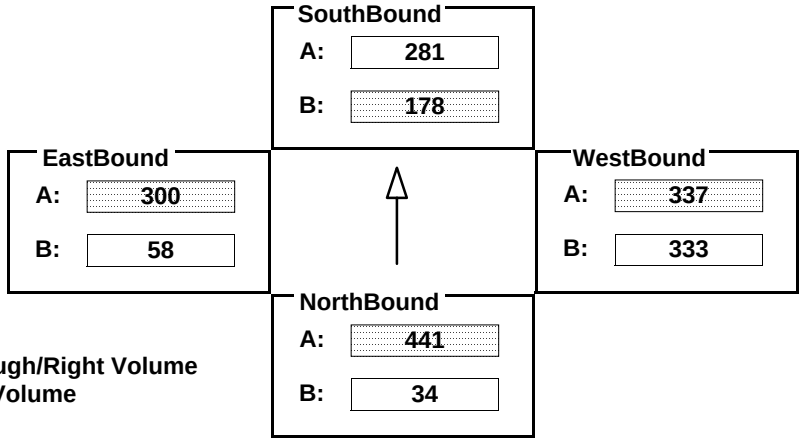
AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	34	882	1026	178	561	52	605	337	67	58	600	165
AMBIENT												
RELATED												
PROJECT												
TOTAL	34	882	1026	178	561	52	605	337	67	58	600	165
LANE	1 0 2 0 0 1 0			1 0 2 0 0 1 0			2 0 1 0 0 1 0			1 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Free		Perm	Auto		Split	Auto		Split	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{441 + 178 + 337 + 300}{*1425} = 0.811$$

LOS = D

0.811-0.03* = 0.781 LOS C
*ATCS Benefit

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CBASEPM

May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Rodeo Road I/S No: 31

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

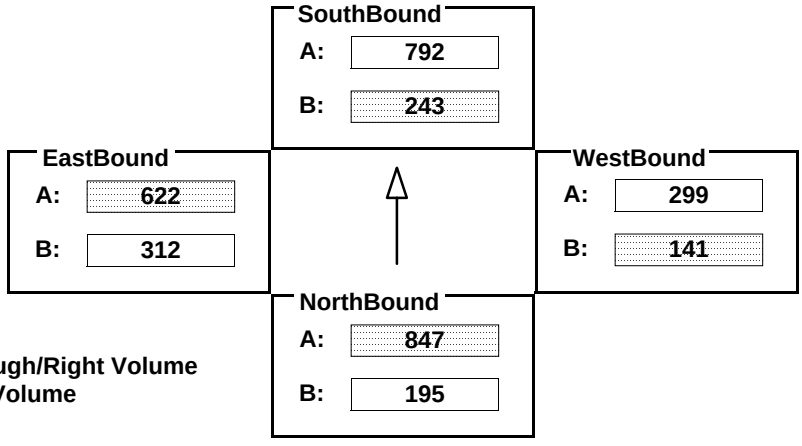
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	355	2305	237	442	2248	129	257	598	150	312	1244	380
AMBIENT												
RELATED												
PROJECT												
TOTAL	355	2305	237	442	2248	129	257	598	150	312	1244	380

	NORTHBOUND							SOUTHBOUND						
LANE	2	0	2	0	1	0	0	2	0	2	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	2	0	2	0	0	1	0	1	0	2	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Prot-Var	OLA	Prot-Var	OLA

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{847 + 243 + 141 + 622}{*1375} = 1.278$$

LOS = F

1.278-0.03* = 1.248 LOS F
*ATCS Benefit

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```
Default Scenario           Wed May 25, 2011 14:47:01                Page 15-1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                     Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
*******************************************************************************
Intersection #321 BRADDOCK DR/DUQUESNE AV [CUMULATIVE (2014) BASE PM]
*******************************************************************************
Cycle (sec):        100                Critical Vol./Cap. (X):        1.531
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):       158.5
Optimal Cycle:        0                Level Of Service:                  F
*******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     155  181   192     8   47    19   133  475   160    21  515    17
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  155  181   192     8   47    19   133  475   160    21  515    17
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:   155  181   192     8   47    19   133  475   160    21  515    17
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  155  181   192     8   47    19   133  475   160    21  515    17
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Final Vol.:   155  181   192     8   47    19   133  475   160    21  515    17
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.29 0.34  0.37  0.11 0.63  0.26  0.17 0.62  0.21  0.04 0.93  0.03
Final Sat.:   149  174   184    43  254   103    87  310   104    19  462    15
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     1.04 1.04  1.04  0.18 0.18  0.18  1.53 1.53  1.53  1.11 1.11  1.11
Crit Moves:       ****             ****             ****             ****
Delay/Veh:   78.3 78.3  78.3  14.0 14.0  14.0 268.5  269 268.5 101.8  102 101.8
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  78.3 78.3  78.3  14.0 14.0  14.0 268.5  269 268.5 101.8  102 101.8
LOS by Move:   F    F     F     B    B     B     F    F     F     F    F     F
ApproachDel:      78.3             14.0            268.5            101.8
Delay Adj:        1.00             1.00             1.00             1.00
ApprAdjDel:       78.3             14.0            268.5            101.8
LOS by Appr:        F                B                F                F
*******************************************************************************
```

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CBASEPM

May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Braddock Drive W/E: Duquesne Avenue I/S No: 32

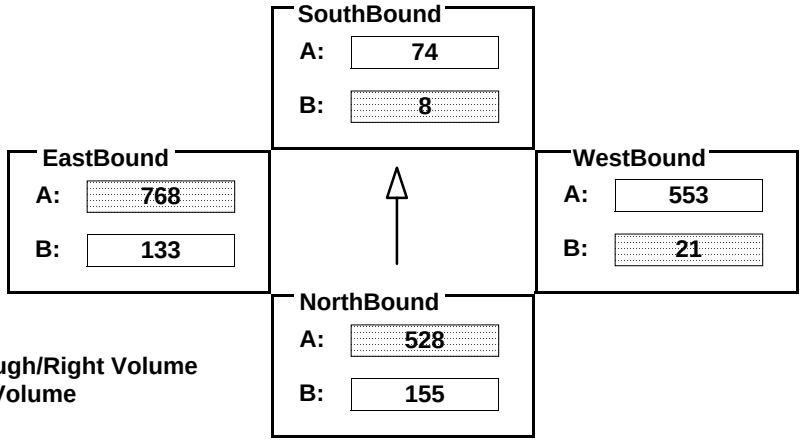
AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	155	181	192	8	47	19	21	515	17	133	475	160
AMBIENT												
RELATED												
PROJECT												
TOTAL	155	181	192	8	47	19	21	515	17	133	475	160
LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
	Phasing		RTOR		Phasing		RTOR		Phasing		RTOR		Phasing		RTOR	
SIGNAL	Perm		Auto		Perm		Auto		Perm		Auto		Perm		Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{528 + 8 + 21 + 768}{1000} = 1.325$$

LOS = F

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```
Default Scenario           Wed May 25, 2011 14:47:01                Page 17-1
------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
******************************************************************************
Intersection #331 LUCERNE AV/DUQUESNE AV [CUMULATIVE (2014) BASE PM]
******************************************************************************
Cycle (sec):        100                Critical Vol./Cap. (X):        1.102
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):        66.8
Optimal Cycle:        0                Level Of Service:                  F
******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0   351    0    73    58  534     0     0  570   239
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0     0   351    0    73    58  534     0     0  570   239
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     0    0     0   351    0    73    58  534     0     0  570   239
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0   351    0    73    58  534     0     0  570   239
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Final Vol.:     0    0     0   351    0    73    58  534     0     0  570   239
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.00 0.00  0.00  0.83 0.00  0.17  0.10 0.90  0.00  0.00 1.00  1.00
Final Sat.:     0    0     0   438    0    91    54  496     0     0  517   575
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     xxxx xxxx  xxxx  0.80 xxxx  0.80  1.08 1.08  xxxx  xxxx 1.10  0.42
Crit Moves:                                ****       ****            ****
Delay/Veh:    0.0  0.0   0.0  32.0  0.0  32.0  85.5 85.5   0.0   0.0 95.7  13.3
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0  0.0   0.0  32.0  0.0  32.0  85.5 85.5   0.0   0.0 95.7  13.3
LOS by Move:   *    *     *     D    *     D     F    F     *     *    F     B
ApproachDel:    xxxxxx            32.0            85.5            71.4
Delay Adj:       xxxxx            1.00            1.00            1.00
ApprAdjDel:     xxxxxx            32.0            85.5            71.4
LOS by Appr:         *               D               F               F
******************************************************************************
```

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CBASEPM

May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Lucerne Avenue W/E: Duquesne Avenue I/S No: 33

AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

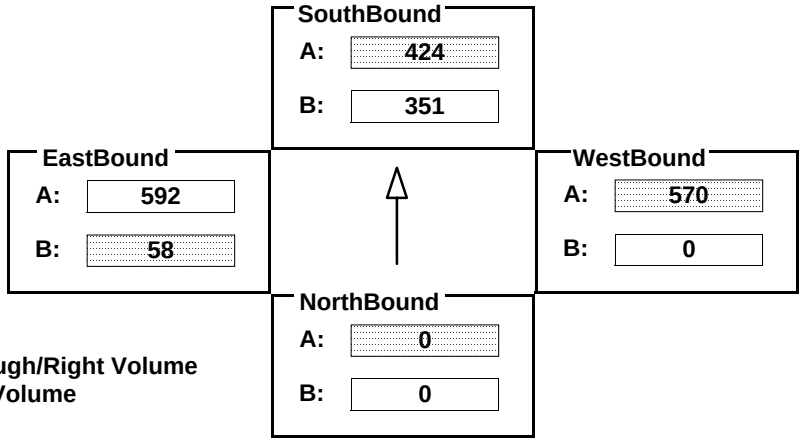
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	351	0	73	0	570	239	58	534	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	351	0	73	0	570	239	58	534	0

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	0	0	0	0	0	0	0	0	0	0	1

	WESTBOUND							EASTBOUND						
LANE	0	0	1	0	0	1	0	0	1	0	0	0	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	<none>	<none>	Split	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 424 + 570 + 58}{1000} = 1.052$$

LOS = F

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CBASEPM

May 25, 2011 ,Wednesday 02:46:17 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Jefferson Boulevard W/E: Duquesne Avenue I/S No: 34

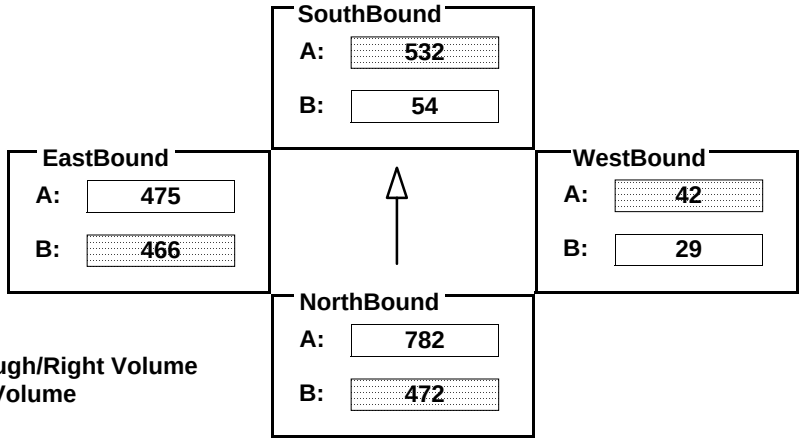
AM/PM: PM Comments: Cumulative (2014) Base

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	472	1528	35	54	1064	212	29	42	21	466	64	411
AMBIENT												
RELATED												
PROJECT												
TOTAL	472	1528	35	54	1064	212	29	42	21	466	64	411
LANE	1 0 1 0 1 0 0			1 0 2 0 0 1 0			1 0 1 0 0 1 0			1 0 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Var	Auto		Prot-Var	Auto		Perm	OLA		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{472 + 532 + 42 + 466}{*1375} = 1.030$$

LOS = F

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APPENDIX F

Capacity Calculation Worksheets

Cumulative (2014) Plus Project Conditions

Cumulative (2014) Plus Project Conditions

AM Peak Hour

CPROJAM

May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: Cattaragus Avenue I/S No: 1

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

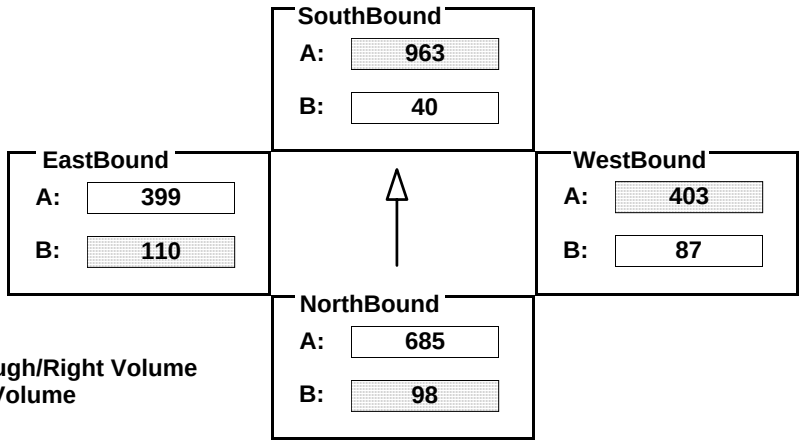
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	98	1364	5	40	1852	73	87	244	72	110	142	147
AMBIENT												
RELATED												
PROJECT												
TOTAL	98	1364	5	40	1852	73	87	244	72	110	142	147

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{98 + 963 + 403 + 110}{*1500} = 0.979$$

LOS = E

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CPROJAM

May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: I-10 WB Off-Ramp/Kincardine Av I/S No: 2

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

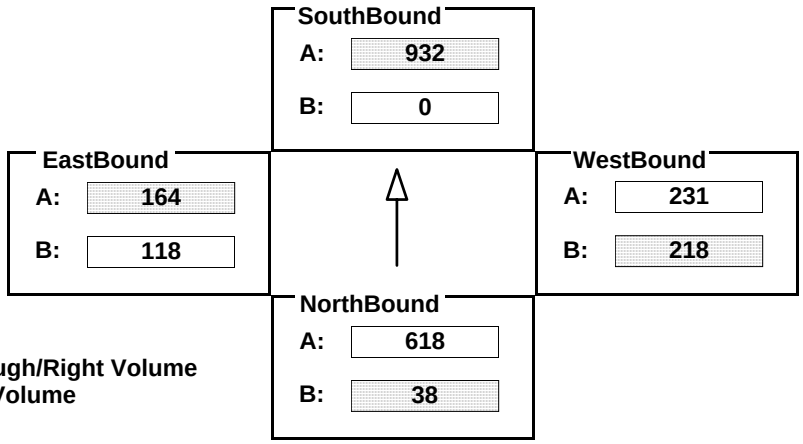
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	38	1236	0	0	1788	75	218	13	175	118	0	46
AMBIENT												
RELATED												
PROJECT												
TOTAL	38	1236	0	0	1788	75	218	13	175	118	0	46

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	0	0	0	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	0	0	0	1	0	1	0	0	0	0	0	0	0	1

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{38 + 932 + 218 + 164}{*1500} = 0.831$$

LOS = D

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May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: National Boulevard I/S No: 3

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

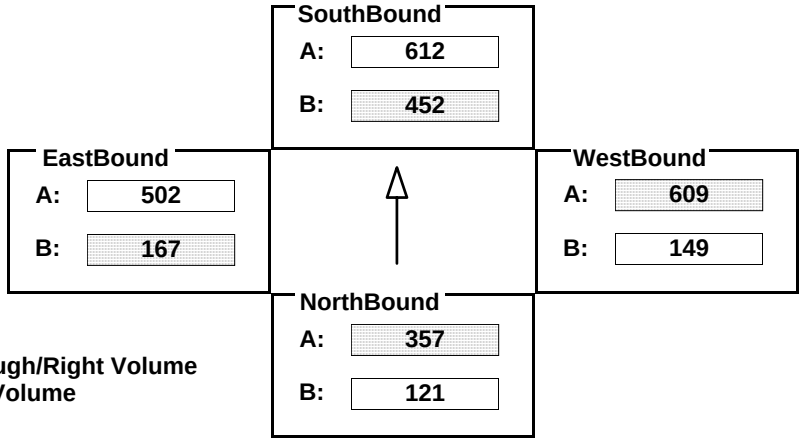
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	121	658	55	821	1013	211	149	609	501	167	741	262
AMBIENT												
RELATED												
PROJECT												
TOTAL	121	658	55	821	1013	211	149	609	501	167	741	262

LANE	1	0	1	0	1	0	0	2	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	Auto	Perm	OLA	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{357 + 452 + 609 + 167}{*1375} = 1.083$$

LOS = F

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May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: National Boulevard W/E: I-10 EB On-Ramp I/S No: 4

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

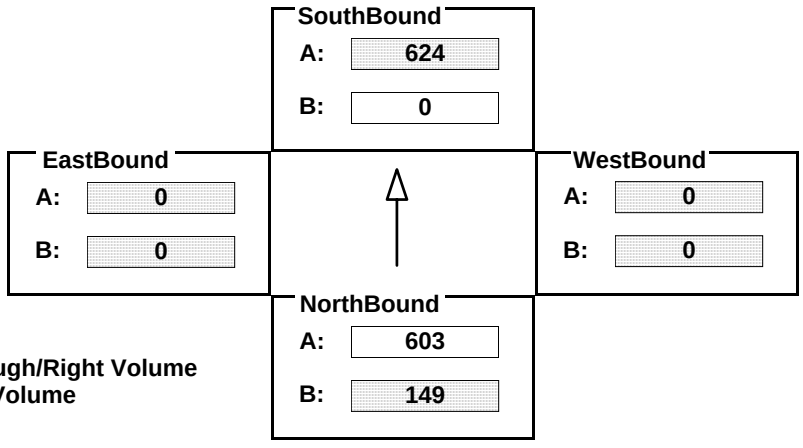
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	149	1205	0	0	1084	624	0	0	0	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	149	1205	0	0	1084	624	0	0	0	0	0	0

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	0	0	0	0	2	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Perm	Auto	<none>	<none>	<none>	<none>

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = +

$$V/C = \frac{149 + 624 + +}{*1500} = 0.445$$

LOS = A

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May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Hughes Avenue W/E: Venice Boulevard I/S No: 5

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

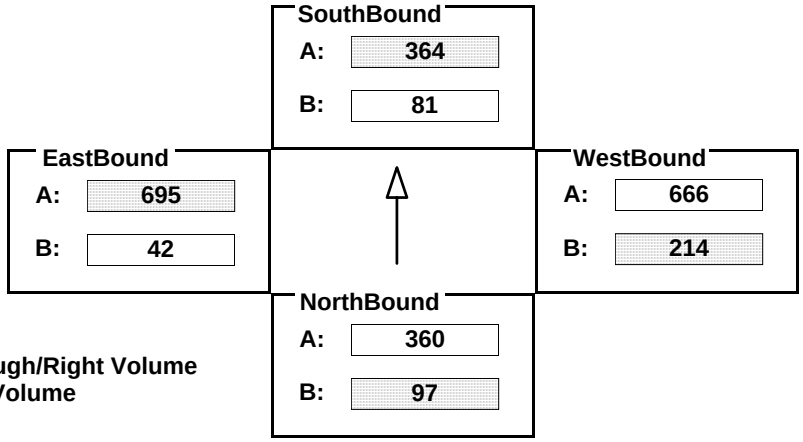
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	97	206	57	81	236	47	214	1999	44	42	2086	121
AMBIENT												
RELATED												
PROJECT												
TOTAL	97	206	57	81	236	47	214	1999	44	42	2086	121

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	3	0	0	1	0	1	0	3	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{97 + 364 + 214 + 695}{*1500} = 0.843$$

LOS = D

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May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Bagley Avenue W/E: Venice Boulevard I/S No: 6

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

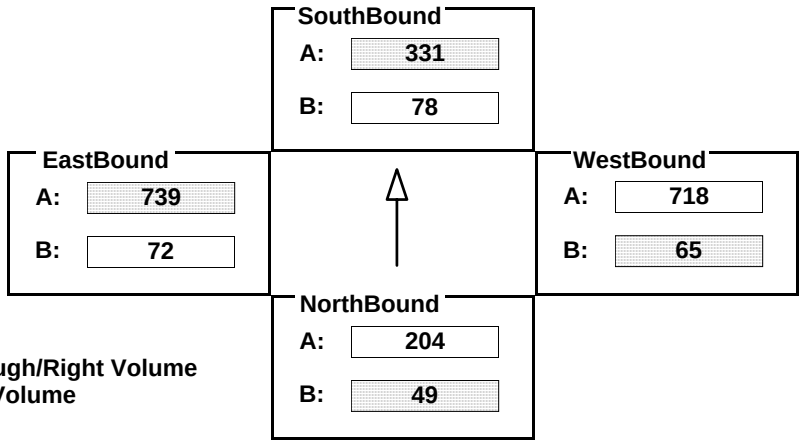
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	49	159	45	78	179	74	65	2153	42	72	2164	54
AMBIENT												
RELATED												
PROJECT												
TOTAL	49	159	45	78	179	74	65	2153	42	72	2164	54

LANE	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	3	0	0	1	0	1	0	2	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{49 + 331 + 65 + 739}{*1375} = 0.791$$

LOS = C

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May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Culver Boulevard W/E: Venice Boulevard I/S No: 7

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

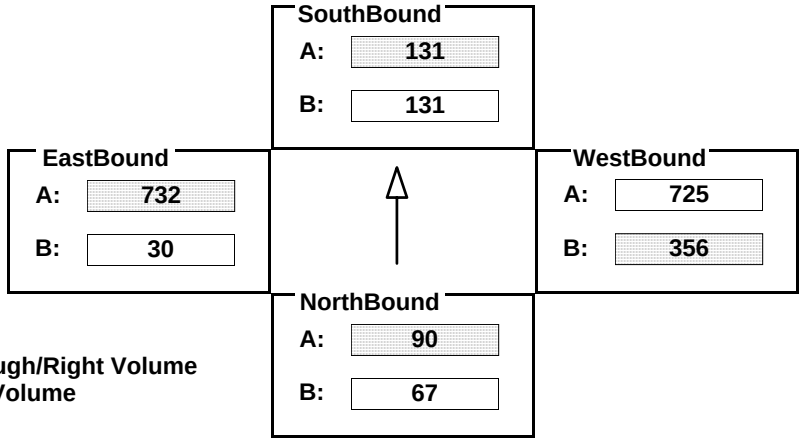
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	67	87	810	183	45	33	647	2024	152	30	2105	91
AMBIENT												
RELATED												
PROJECT												
TOTAL	67	87	810	183	45	33	647	2024	152	30	2105	91

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	0	2	0	1	0	0	1	0	0	0

	WESTBOUND							EASTBOUND						
LANE	2	0	2	0	1	0	0	1	0	2	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	OLA	Split	Auto	Prot-Fix	Auto	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{90 + 131 + 356 + 732}{*1375} = 0.882$$

LOS = D

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May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: Venice Boulevard I/S No: 8

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

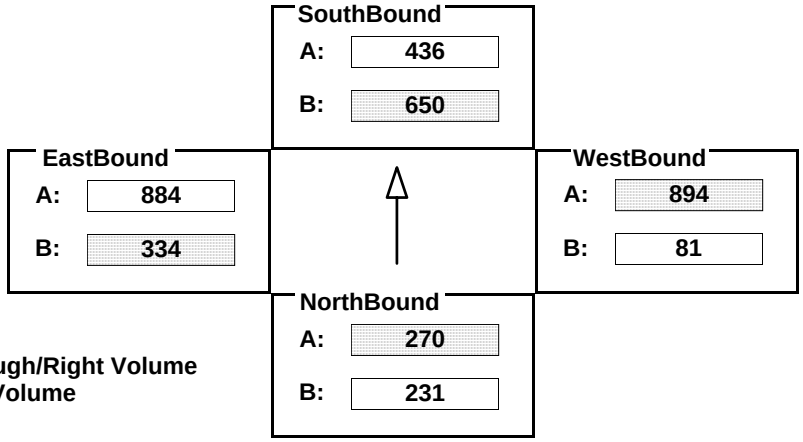
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	231	540	61	650	436	319	81	2327	356	607	2482	169
AMBIENT												
RELATED												
PROJECT												
TOTAL	231	540	61	650	436	319	81	2327	356	607	2482	169

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	1	0	0	1	1	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	1	0	0	2	0	2	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	OLA	Split	Auto	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{270 + 650 + 894 + 334}{*1375} = 1.492$$

LOS = F

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May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: National Boulevard W/E: Venice Boulevard I/S No: 9

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

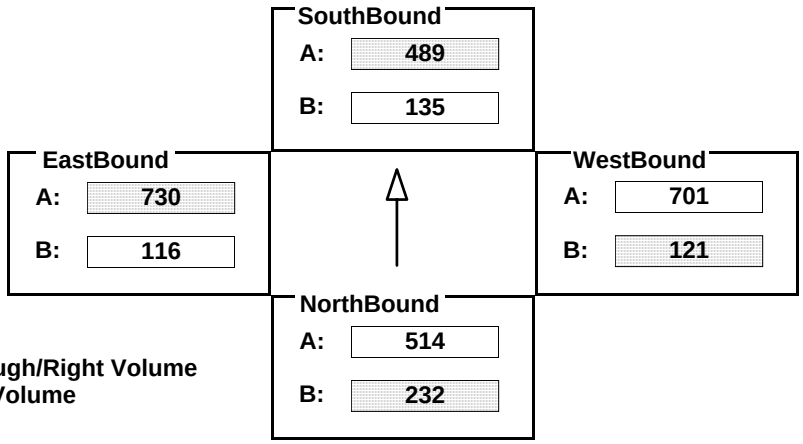
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	232	1003	25	135	830	148	220	2104	122	211	2189	683
AMBIENT												
RELATED												
PROJECT												
TOTAL	232	1003	25	135	830	148	220	2104	122	211	2189	683

LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0	2	0	3	0	0	1	0	2	0	3	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	Auto	Prot-Fix	Auto	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{232 + 489 + 121 + 730}{*1375} = 1.073$$

LOS = F

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May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Helms Avenue W/E: Venice Boulevard I/S No: 10

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

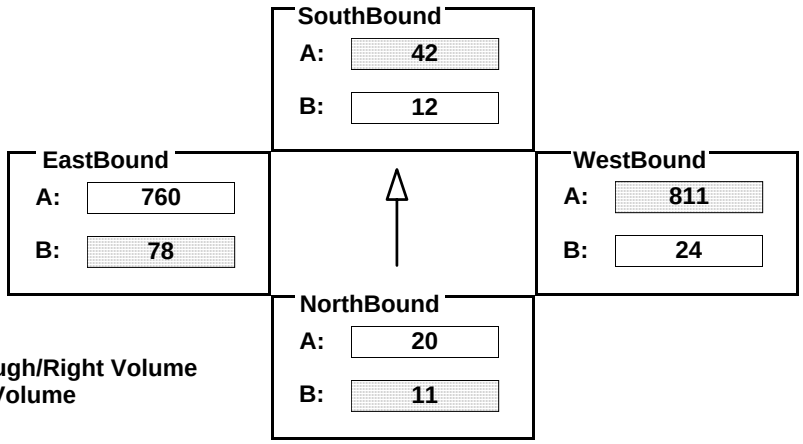
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	11	9	4	12	2	28	24	2410	23	78	2257	22
AMBIENT												
RELATED												
PROJECT												
TOTAL	11	9	4	12	2	28	24	2410	23	78	2257	22

LANE	0	1	0	0	0	1	0	0	0	0	1	0	0	0	1	0	2	0	1	0	0	1	0	2	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{11 + 42 + 811 + 78}{*1500} = 0.558$$

LOS = A

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May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Cattaraugus Avenue W/E: Venice Boulevard I/S No: 11

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

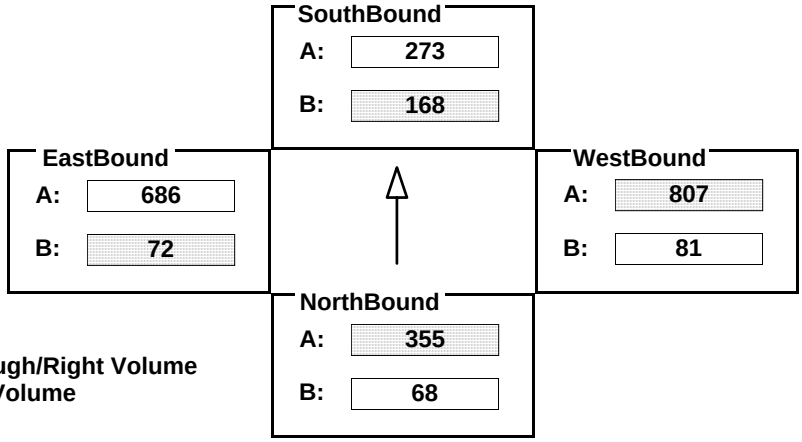
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	68	252	35	168	87	18	81	2315	105	72	2047	11
AMBIENT												
RELATED												
PROJECT												
TOTAL	68	252	35	168	87	18	81	2315	105	72	2047	11

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{355 + 168 + 807 + 72}{*1500} = 0.865$$

LOS = D

Developed by Chun Wong, 12/94

CPROJAM

May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Venice Boulevard I/S No: 12

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

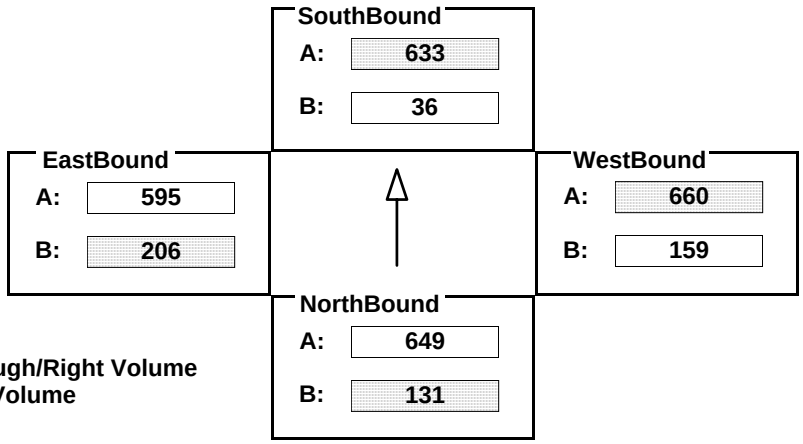
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	131	1867	79	36	1486	412	159	1979	15	375	1785	173
AMBIENT												
RELATED												
PROJECT												
TOTAL	131	1867	79	36	1486	412	159	1979	15	375	1785	173

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	3	0	0	1	0	2	0	3	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{131 + 633 + 660 + 206}{*1375} = 1.115$$

LOS = F

Developed by Chun Wong, 12/94

CPROJAM

May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Hughes Av/Duquesne Av W/E: Washington Boulevard I/S No: 13

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

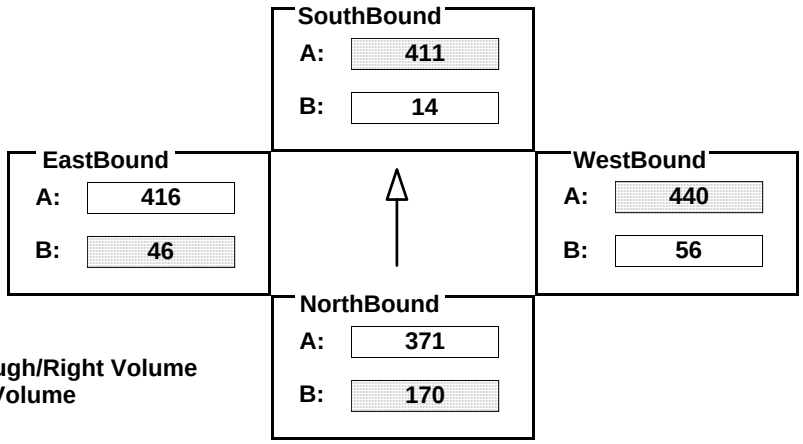
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	170	331	40	14	360	51	56	828	51	46	645	186
AMBIENT												
RELATED												
PROJECT												
TOTAL	170	331	40	14	360	51	56	828	51	46	645	186

LANE	1	0	0	0	1	0	0	1	0	0	0	1	0	0	1	0	1	0	1	0	0	1	0	1	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{170 + 411 + 440 + 46}{*1500} = 0.641$$

LOS = B

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CPROJAM

May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Duquesne Avenue W/E: Culver Boulevard I/S No: 14

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

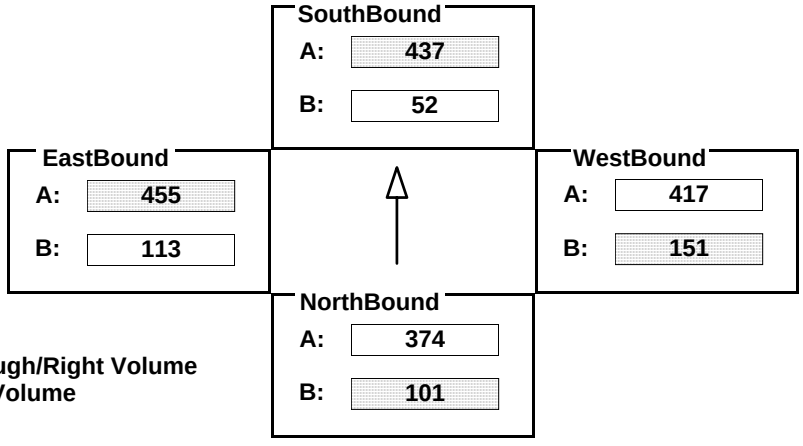
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	101	374	142	52	437	79	151	777	57	113	859	51
AMBIENT												
RELATED												
PROJECT												
TOTAL	101	374	142	52	437	79	151	777	57	113	859	51

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	0	1	0	1	0	1	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{101 + 437 + 151 + 455}{*1375} = 0.762$$

LOS = C

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CPROJAM

May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Culver Boulevard W/E: Washington Bl/Irving Pl I/S No: 15

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

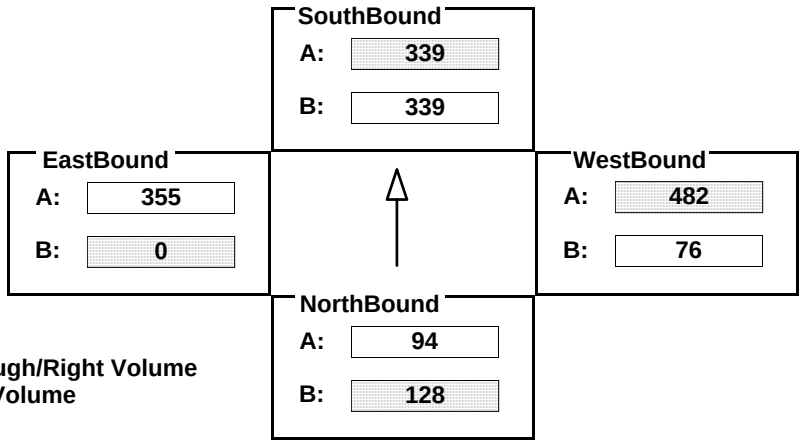
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	128	0	132	654	0	24	76	898	886	0	1021	44
AMBIENT									-339			
RELATED												
PROJECT												
TOTAL	128	0	132	654	0	24	76	898	547	0	1021	44

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	0	0	0	1	0	1	0	0	0	0	0	1

	WESTBOUND							EASTBOUND						
LANE	1	0	1	0	1	1	0	0	0	2	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	Split	Auto	Prot-Fix	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{128 + 339 + 482 + 0}{*1375} = 0.620$$

LOS = B

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May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Main Street W/E: Culver Boulevard I/S No: 16

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

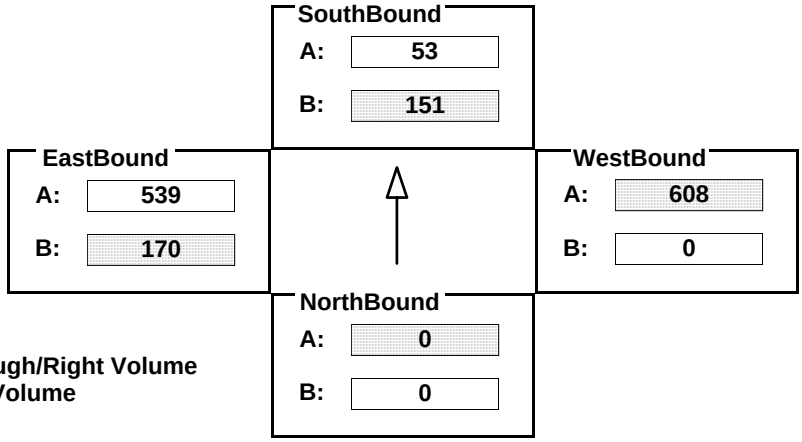
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	151	0	138	0	1659	164	170	1618	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	151	0	138	0	1659	164	170	1618	0

LANE																									
	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	2	0	1	0	0	1	0	3	0	0	0	0

SIGNAL	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
	<none>	<none>	Split	Auto	Perm	Auto	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 151 + 608 + 170}{*1425} = 0.582$$

LOS = A

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May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Culver Boulevard W/E: Washington Bl/Canfield Av I/S No: 17

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

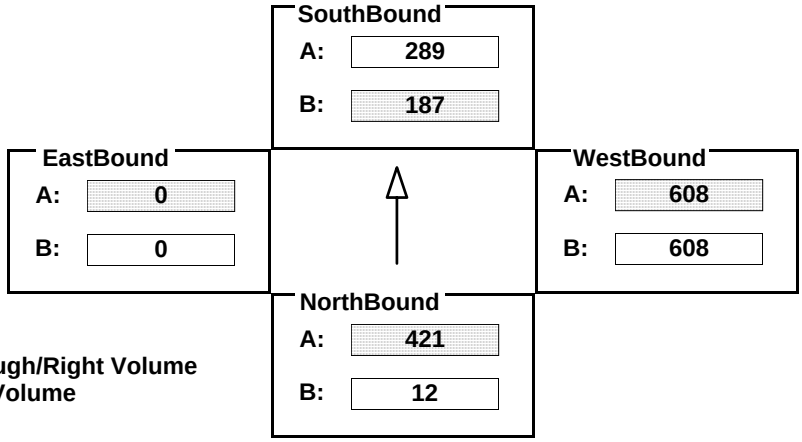
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	12	842	922	187	574	4	1179	36	139	0	0	6
AMBIENT												
RELATED												
PROJECT												
TOTAL	12	842	922	187	574	4	1179	36	139	0	0	6

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	2	0	1	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	1	0	0	0	1	0	0	0	0	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	OLA	Prot-Fix	Auto	Split	Auto	<none>	OLA

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{421 + 187 + 608 + 0}{*1425} = 0.783$$

LOS = C

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May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Bl/Higuera St W/E: Washington Boulevard I/S No: 18

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

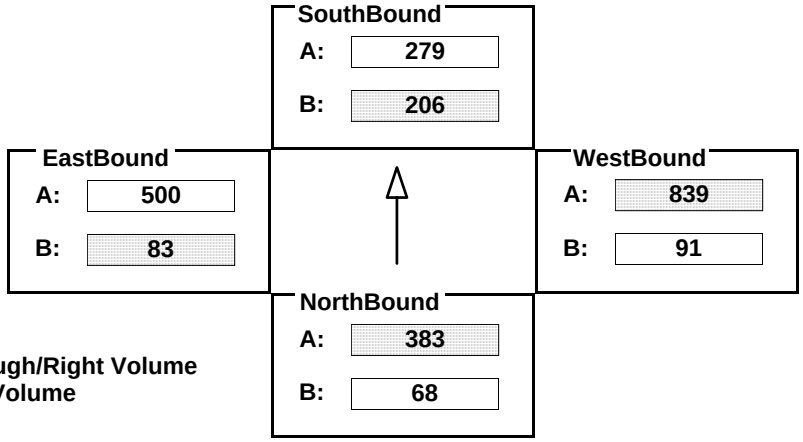
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	68	383	72	206	279	136	91	1353	324	83	928	71
AMBIENT												
RELATED												
PROJECT												
TOTAL	68	383	72	206	279	136	91	1353	324	83	928	71

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	0	1	0	1	0	1	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{383 + 206 + 839 + 83}{*1425} = 0.990$$

LOS = E

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May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Landmark Street W/E: Washington Boulevard I/S No: 19

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

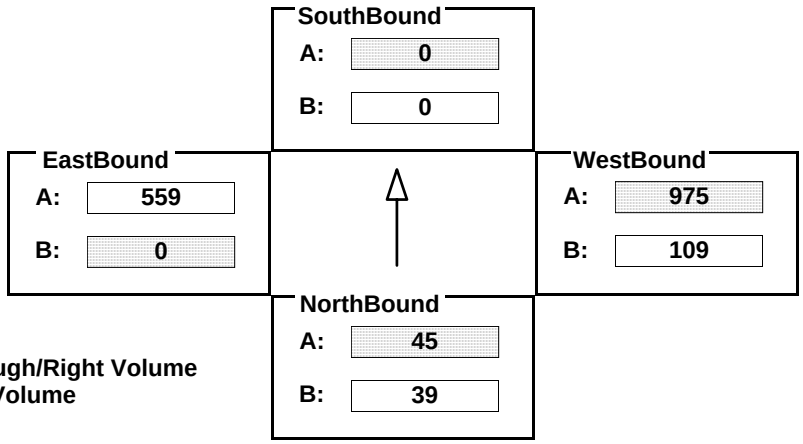
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	39	0	45	0	0	0	109	1949	0	0	1007	110
AMBIENT												
RELATED												
PROJECT												
TOTAL [1]	39	0	45	0	0	0	109	1949	0	0	1007	110

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	0	0	0	1	0	0	0	0	0	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	0	0	0	0	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{45 + 0 + 975 + 0}{*1500} = 0.610$$

LOS = B

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[1] Note: Pass-by credit not applied at this location.

CPROJAM

May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: National Boulevard W/E: Washington Boulevard I/S No: 20

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

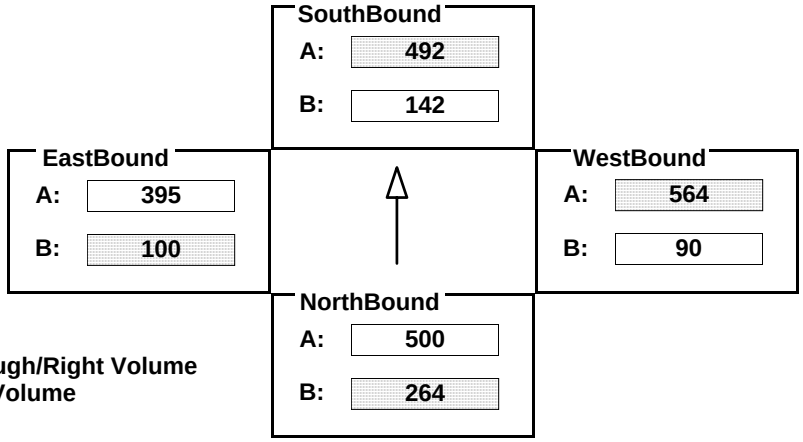
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	480	874	126	258	902	82	90	1353	340	100	789	188
AMBIENT												
RELATED												
PROJECT												
TOTAL	480	874	126	258	902	82	90	1353	340	100	789	188

	NORTHBOUND							SOUTHBOUND						
LANE	2	0	1	0	1	0	0	2	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	1	0	0	1	0	2	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{264 + 492 + 564 + 100}{*1375} = 0.963$$

LOS = E

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```
Default Scenario           Thu May 26, 2011 16:04:10                Page 3-1
------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #21 WESLEY AV/WASHINGTON BL [CUMULATIVE (2014) + PROJECT AM]
******************************************************************************
Average Delay (sec/veh):      2.1   Worst Case Level Of Service:       F[138.9]
******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    1  0  2  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      30    0    13     0    0     0     0 1116    36    26 1770     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   30    0    13     0    0     0     0 1116    36    26 1770     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    30    0    13     0    0     0     0 1116    36    26 1770     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Final Vol.:    30    0    13     0    0     0     0 1116    36    26 1770     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8 xxxx   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5 xxxx   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 2071 xxxx   576  xxxx xxxx xxxxx  xxxx xxxx xxxxx  1152 xxxx xxxxx
Potent Cap.:   48 xxxx   466  xxxx xxxx xxxxx  xxxx xxxx xxxxx   614 xxxx xxxxx
Move Cap.:     46 xxxx   466  xxxx xxxx xxxxx  xxxx xxxx xxxxx   614 xxxx xxxxx
Volume/Cap:  0.65 xxxx  0.03  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.04 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Queue:      xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.1 xxxx xxxxx
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx  11.1 xxxx xxxxx
LOS by Move:   *    *     *     *    *     *     *    *     *     B    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx   64 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  2.9 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd StpDel:xxxxx  139 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    F     *     *    *     *     *    *     *     *    *     *
ApproachDel:     138.9           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:       F               *                *                *
```

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May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Wesley Avenue/Driveway W/E: Washington Boulevard I/S No: 21

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

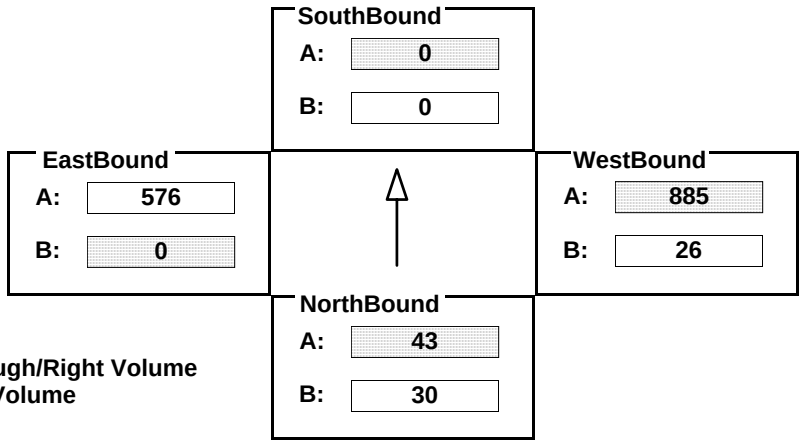
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	30	0	13	0	0	0	26	1770	0	0	1116	36
AMBIENT												
RELATED												
PROJECT												
TOTAL	30	0	13	0	0	0	26	1770	0	0	1116	36

LANE	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	1	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	<none>	<none>	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{43 + 0 + 885 + 0}{1200} = 0.773$$

LOS = C

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CPROJAM

May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Helms Avenue W/E: Washington Boulevard I/S No: 22

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

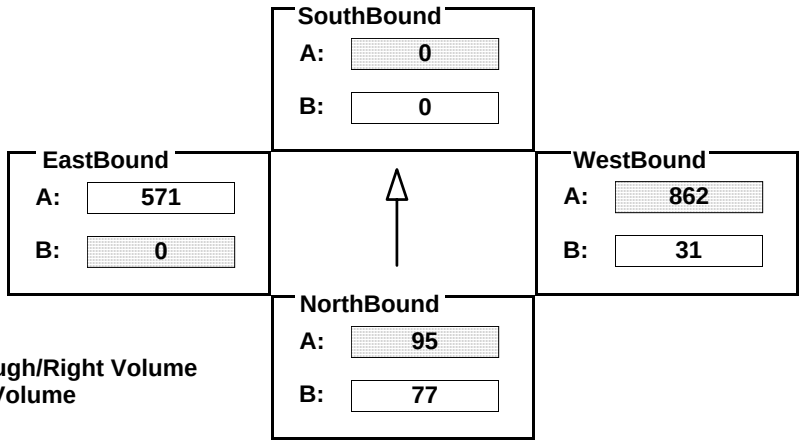
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	77	0	18	0	0	0	31	1724	0	0	1102	40
AMBIENT												
RELATED												
PROJECT												
TOTAL	77	0	18	0	0	0	31	1724	0	0	1102	40

LANE	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	1	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	<none>	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{95 + 0 + 862 + 0}{*1500} = 0.568$$

LOS = A

Developed by Chun Wong, 12/94

```
Default Scenario           Thu May 26, 2011 16:04:10                Page 5-1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #23 CATTARAUGUS AV/WASHINGTON AV [CUMULATIVE (2014) + PROJECT AM]
*******************************************************************************
Average Delay (sec/veh):    283.7   Worst Case Level Of Service:       F[6057.0]
*******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  1  0    0  1  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       9    5     3    89    6    56    51  985     6     3 1724   330
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    9    5     3    89    6    56    51  985     6     3 1724   330
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     9    5     3    89    6    56    51  985     6     3 1724   330
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Final Vol.:     9    5     3    89    6    56    51  985     6     3 1724   330
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  7.5  6.5   6.9   7.5  6.5   6.9   4.1 xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3   3.5  4.0   3.3   2.2 xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1961 3150   496  2492 2988  1027  2054 xxxx xxxxx   991 xxxx xxxxx
Potent Cap.:   39   11   525    15   14   235   277 xxxx xxxxx   706 xxxx xxxxx
Move Cap.:     15    9   525     7   11   235   277 xxxx xxxxx   706 xxxx xxxxx
Volume/Cap:  0.61 0.56  0.01 12.28 0.53  0.24  0.18 xxxx  xxxx  0.00 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Queue:      xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.7 xxxx xxxxx   0.0 xxxx xxxxx
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  20.9 xxxx xxxxx  10.1 xxxx xxxxx
LOS by Move:   *    *     *     *    *     *     C    *     *     B    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx   14 xxxxx  xxxx   12 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  2.7 xxxxx xxxxx 20.2 xxxxx   0.7 xxxx xxxxx   0.0 xxxx xxxxx
Shrd StpDel:xxxxx  658 xxxxx xxxxx 6057 xxxxx  20.9 xxxx xxxxx  10.1 xxxx xxxxx
Shared LOS:    *    F     *     *    F     *     C    *     *     B    *     *
ApproachDel:     658.2           6057.0           xxxxxx           xxxxxx
ApproachLOS:       F               F                *                *
```

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CPROJAM

May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Cattaraugus Avenue W/E: Washington Boulevard I/S No: 23

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

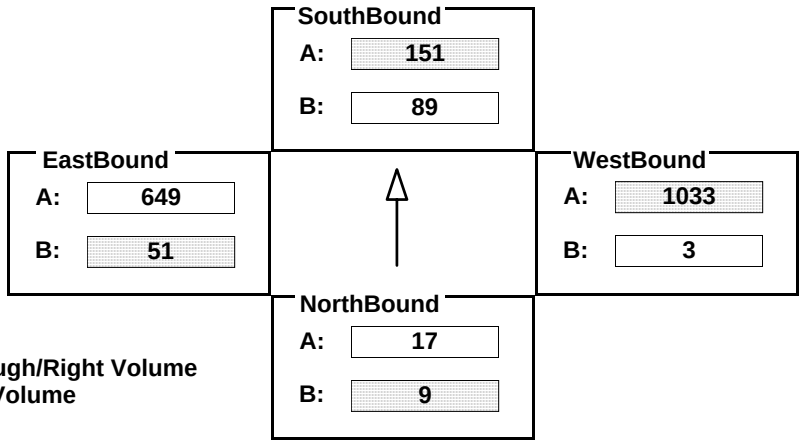
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	9	5	3	89	6	56	3	1724	330	51	985	6
AMBIENT												
RELATED												
PROJECT												
TOTAL	9	5	3	89	6	56	3	1724	330	51	985	6

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	0

	WESTBOUND							EASTBOUND						
LANE	0	1	0	0	1	0	0	0	1	0	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{9 + 151 + 1033 + 51}{1200} = 1.037$$

LOS = F

Developed by Chun Wong, 12/94

CPROJAM

May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Washington Boulevard I/S No: 24

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

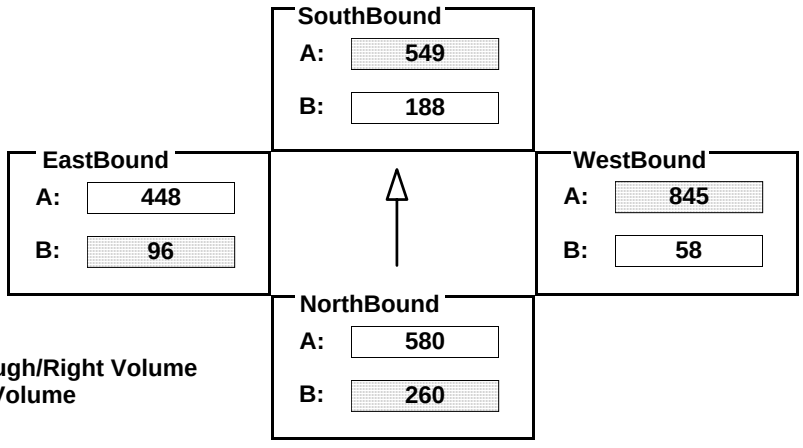
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	260	1718	21	188	1591	57	58	1690	252	96	895	122
AMBIENT												
RELATED												
PROJECT												
TOTAL	260	1718	21	188	1591	57	58	1690	252	96	895	122

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	0	1	0	1	0	2	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{260 + 549 + 845 + 96}{*1375} = 1.203$$

LOS = F

Developed by Chun Wong, 12/94

CPROJAM

May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Fairfax Avenue I/S No: 25

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

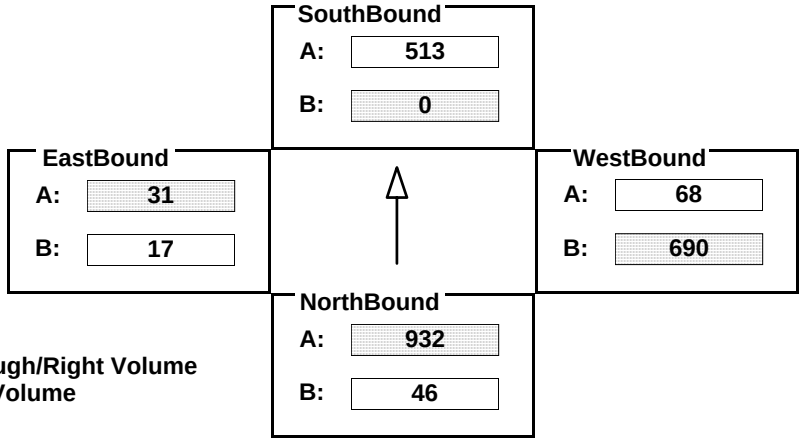
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	46	1863	978	0	1495	43	1255	37	31	17	2	12
AMBIENT												
RELATED												
PROJECT												
TOTAL	46	1863	978	0	1495	43	1255	37	31	17	2	12

LANE	1	0	2	0	0	2	0	0	0	2	0	1	0	0	2	0	0	0	1	0	0	0	0	0	1	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Free	Perm	Auto	Split	Auto	Split	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{932 + 0 + 690 + 31}{*1425} = 1.090$$

LOS = F

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CPROJAM

May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Wesley Street W/E: National Boulevard I/S No: 26

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

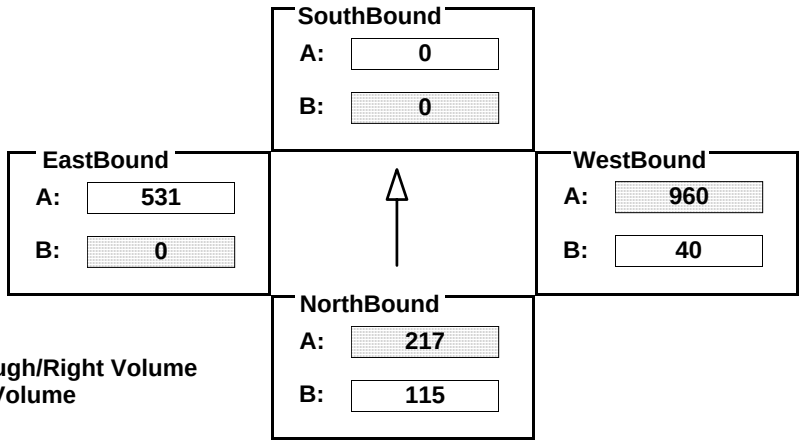
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	115	0	102	0	0	0	40	1920	0	0	1062	87
AMBIENT												
RELATED												
PROJECT												
TOTAL	115	0	102	0	0	0	40	1920	0	0	1062	87

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	0	0	0	1	0	0	0	0	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	0	0	0	0	0	2	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{217 + 0 + 960 + 0}{*1500} = 0.715$$

LOS = C

Developed by Chun Wong, 12/94

CPROJAM

May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Hayden Avenue W/E: National Boulevard I/S No: 27

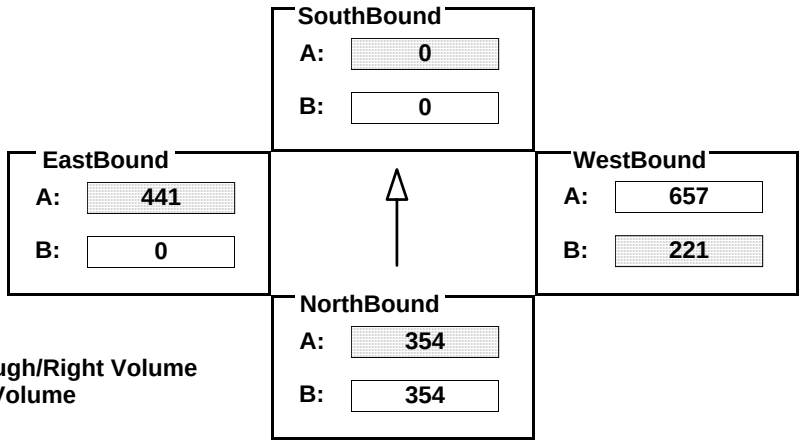
AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	611	0	96	0	0	0	221	1314	0	0	881	275
AMBIENT												
RELATED												
PROJECT												
TOTAL	611	0	96	0	0	0	221	1314	0	0	881	275
LANE	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	2	0	0	1	0
	Phasing		RTOR		Phasing		RTOR		Phasing		RTOR		Phasing		RTOR	
SIGNAL	Split		Auto		<none>		<none>		Prot-Fix		Auto		Perm		Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{354 + 0 + 221 + 441}{*1425} = 0.643$$

LOS = B

Developed by Chun Wong, 12/94

CPROJAM

May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Jefferson Boulevard W/E: National Boulevard I/S No: 28

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

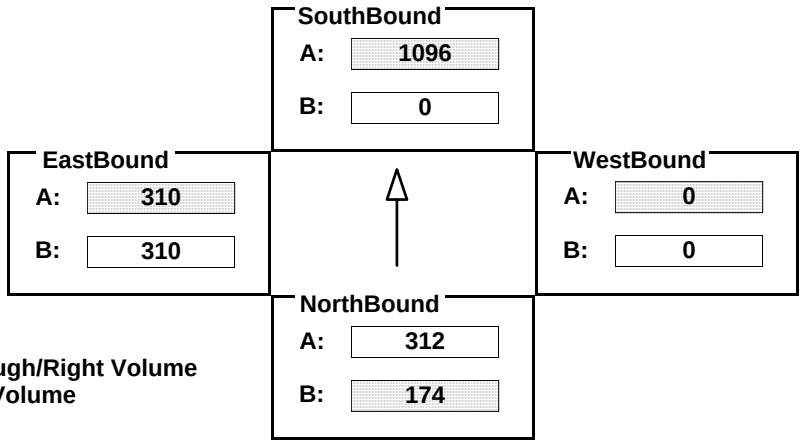
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	174	624	0	0	753	1406	0	0	0	620	0	177
AMBIENT												
RELATED												
PROJECT												
TOTAL	174	624	0	0	753	1406	0	0	0	620	0	177

LANE	1	0	2	0	0	1	0	1	0	1	0	0	1	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	OLA	Split	Auto	Split	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{174 + 1096 + 0 + 310}{*1425} = 1.039$$

LOS = F

Developed by Chun Wong, 12/94

CPROJAM

May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Jefferson Boulevard I/S No: 29

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

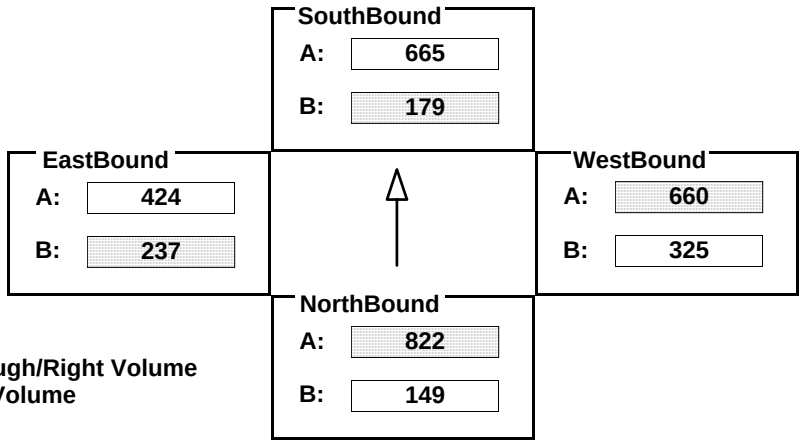
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	149	2351	116	179	1994	643	591	1320	138	430	717	131
AMBIENT												
RELATED												
PROJECT												
TOTAL	149	2351	116	179	1994	643	591	1320	138	430	717	131

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	1	0	0	1	0	3	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	2	0	2	0	0	1	0	2	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	OLA	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{822 + 179 + 660 + 237}{*1375} = 1.310$$

LOS = F

Developed by Chun Wong, 12/94

CPROJAM

May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Jefferson Boulevard W/E: Higuera St/Rodeo Rd I/S No: 30

AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

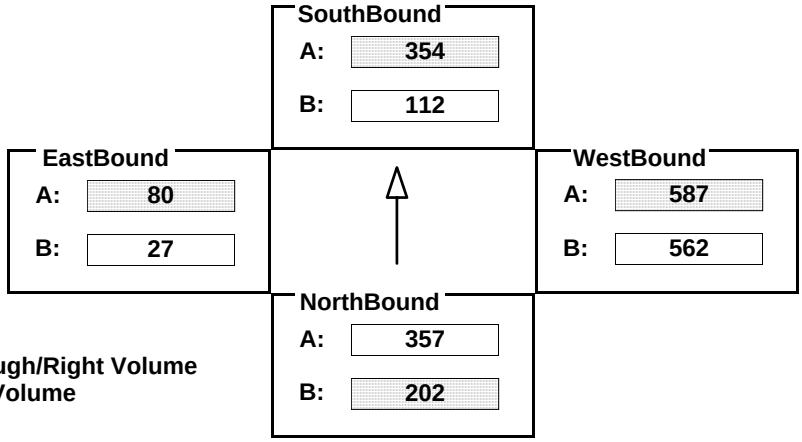
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	202	713	800	112	707	95	1022	587	147	27	160	51
AMBIENT												
RELATED												
PROJECT												
TOTAL	202	713	800	112	707	95	1022	587	147	27	160	51

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	1	0	1	0	2	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	2	0	1	0	0	1	0	1	0	2	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Free	Perm	Auto	Split	Auto	Split	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{202 + 354 + 587 + 80}{*1425} = 0.788$$

LOS = C

Developed by Chun Wong, 12/94

CPROJAM

May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Rodeo Road I/S No: 31

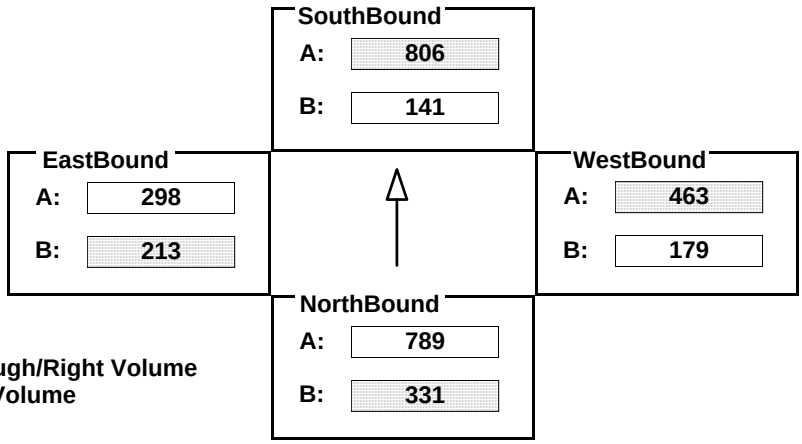
AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	602	2271	95	256	2126	291	325	925	329	213	596	229
AMBIENT												
RELATED												
PROJECT												
TOTAL	602	2271	95	256	2126	291	325	925	329	213	596	229
LANE	2 0 2 0 1 0 0			2 0 2 0 1 0 0			2 0 2 0 0 1 0			1 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Prot-Var	OLA		Prot-Var	OLA	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{331 + 806 + 463 + 213}{*1375} = 1.249$$

LOS = F

Developed by Chun Wong, 12/94

```
Default Scenario           Thu May 26, 2011 16:04:10                 Page 7-1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
*******************************************************************************
Intersection #32 BRADDOCK DR/DUQUESNE AV [CUMULATIVE (2014) + PROJECT AM]
*******************************************************************************
Cycle (sec):        100               Critical Vol./Cap. (X):        1.639
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):       229.1
Optimal Cycle:        0               Level Of Service:                  F
*******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      90  209   143    30  328    39    48  557    38    56  552    40
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   90  209   143    30  328    39    48  557    38    56  552    40
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    90  209   143    30  328    39    48  557    38    56  552    40
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   90  209   143    30  328    39    48  557    38    56  552    40
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Final Vol.:    90  209   143    30  328    39    48  557    38    56  552    40
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.20 0.48  0.32  0.07 0.83  0.10  0.07 0.87  0.06  0.09 0.85  0.06
Final Sat.:    82  190   130    30  328    39    30  343    23    34  337    24
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     1.10 1.10  1.10  1.00 1.00  1.00  1.63 1.63  1.63  1.64 1.64  1.64
Crit Moves:       ****           ****                     ****  ****
Delay/Veh:  105.2  105 105.2  76.3 76.3  76.3 315.7  316 315.7 321.2  321 321.2
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh: 105.2  105 105.2  76.3 76.3  76.3 315.7  316 315.7 321.2  321 321.2
LOS by Move:   F    F     F     F    F     F     F    F     F     F    F     F
ApproachDel:     105.2            76.3           315.7           321.2
Delay Adj:        1.00            1.00            1.00            1.00
ApprAdjDel:      105.2            76.3           315.7           321.2
LOS by Appr:       F                F               F               F
*******************************************************************************
```

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CPROJAM

May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Braddock Drive W/E: Duquesne Avenue I/S No: 32

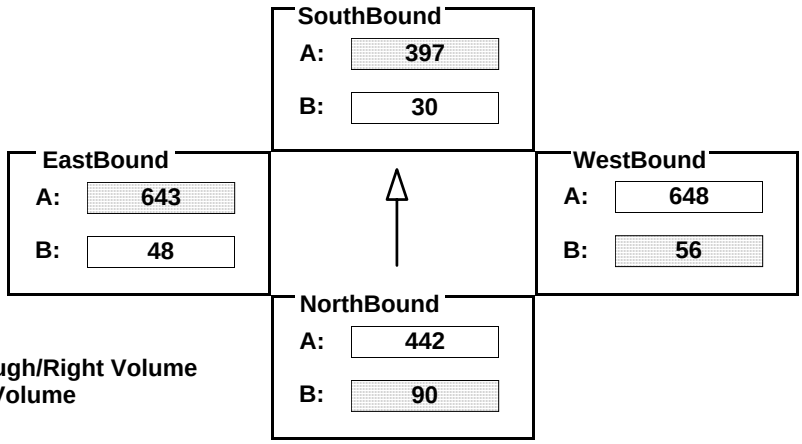
AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	90	209	143	30	328	39	56	552	40	48	557	38
AMBIENT												
RELATED												
PROJECT												
TOTAL	90	209	143	30	328	39	56	552	40	48	557	38
LANE	0 0 0 1 0 0 0			0 0 0 1 0 0 0			0 0 0 1 0 0 0			0 0 0 1 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{90 + 397 + 56 + 643}{1000} = 1.186$$

LOS = F

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```
Default Scenario           Thu May 26, 2011 16:04:10                 Page 9-1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
*******************************************************************************
Intersection #33 LUCERNE AV/DUQUESNE AV [CUMULATIVE (2014) + PROJECT AM]
*******************************************************************************
Cycle (sec):        100               Critical Vol./Cap. (X):        1.049
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):        52.2
Optimal Cycle:        0               Level Of Service:                  F
*******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0   188    0    63    92  555     0     0  598   353
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0     0   188    0    63    92  555     0     0  598   353
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     0    0     0   188    0    63    92  555     0     0  598   353
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0   188    0    63    92  555     0     0  598   353
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Final Vol.:     0    0     0   188    0    63    92  555     0     0  598   353
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.00 0.00  0.00  0.75 0.00  0.25  0.14 0.86  0.00  0.00 1.00  1.00
Final Sat.:     0    0     0   399    0   134    88  529     0     0  586   661
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     xxxx xxxx  xxxx  0.47 xxxx  0.47  1.05 1.05  xxxx  xxxx 1.02  0.53
Crit Moves:                   ****                   ****             ****
Delay/Veh:    0.0  0.0   0.0  15.6  0.0  15.6  73.5 73.5   0.0   0.0 67.0  14.2
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0  0.0   0.0  15.6  0.0  15.6  73.5 73.5   0.0   0.0 67.0  14.2
LOS by Move:   *    *     *     C    *     C     F    F     *     *    F     B
ApproachDel:    xxxxxx            15.6            73.5            47.4
Delay Adj:       xxxxx            1.00            1.00            1.00
ApprAdjDel:     xxxxxx            15.6            73.5            47.4
LOS by Appr:         *              C               F               E
*******************************************************************************
```

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CPROJAM

May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Lucerne Avenue W/E: Duquesne Avenue I/S No: 33

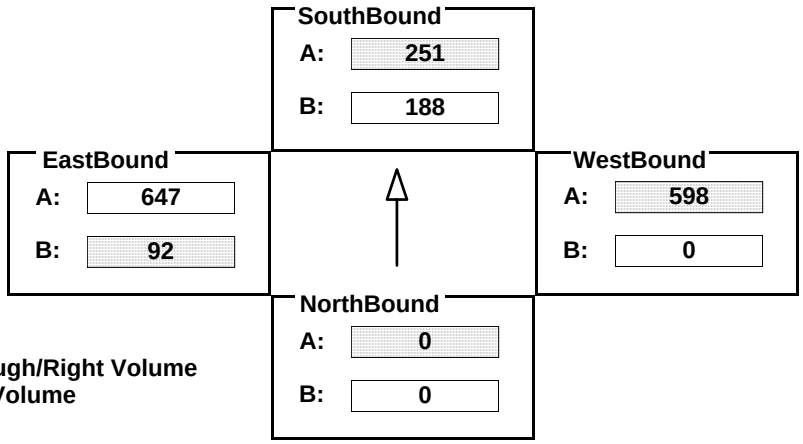
AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	188	0	63	0	598	353	92	555	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	188	0	63	0	598	353	92	555	0
LANE	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0	1	0	0	0
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	<none>	<none>	Split	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 251 + 598 + 92}{1000} = 0.941$$

LOS = E

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CPROJAM

May 27, 2011 ,Friday 10:02:51 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Jefferson Boulevard W/E: Duquesne Avenue I/S No: 34

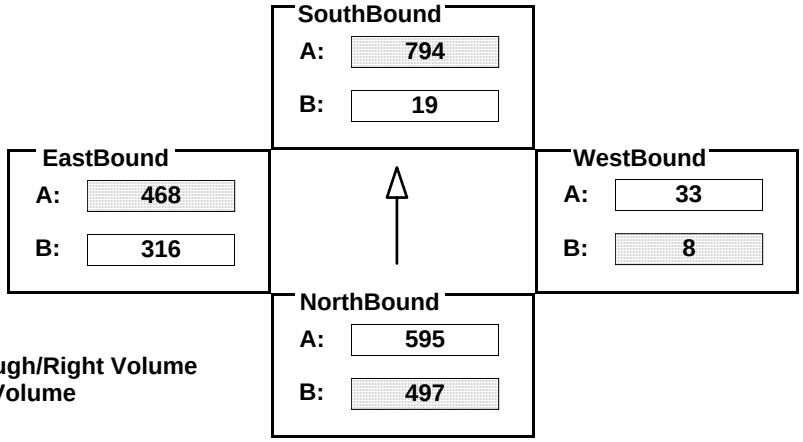
AM/PM: AM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	497	1162	28	19	1588	440	8	33	6	316	32	436
AMBIENT												
RELATED												
PROJECT												
TOTAL	497	1162	28	19	1588	440	8	33	6	316	32	436
LANE	1 0	1 0	1 0	1 0	2 0	0 1	0	1 0	1 0	0 1	0	1 0	0 1	0	1 0	0 0	1 0	0
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR				
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Perm	OLA	Perm	Auto				

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{497 + 794 + 8 + 468}{*1375} = 1.215$$

LOS = F

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Cumulative (2014) Plus Project Conditions

PM Peak Hour

CPROJPM

May 27, 2011 ,Friday 10:03:44 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: Cattaragus Avenue I/S No: 1

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

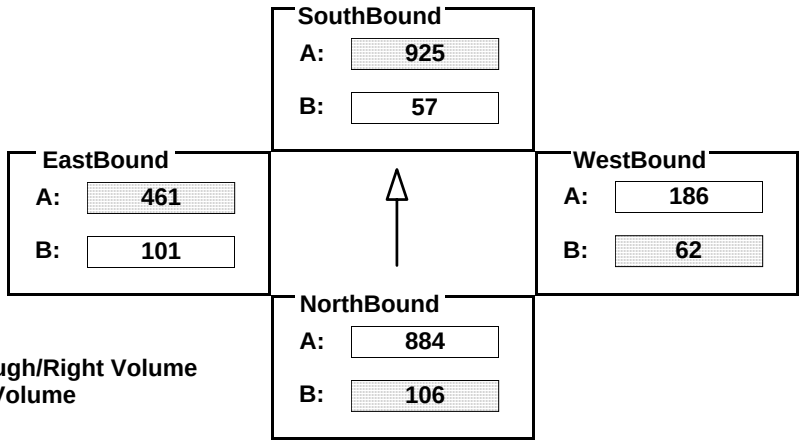
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	106	1753	15	57	1785	65	62	81	43	101	231	129
AMBIENT												
RELATED												
PROJECT												
TOTAL	106	1753	15	57	1785	65	62	81	43	101	231	129

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{106 + 925 + 62 + 461}{*1500} = 0.966$$

LOS = E

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CPROJPM

May 27, 2011 ,Friday 10:03:44 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: I-10 WB Off-Ramp/Kincardine Av I/S No: 2

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

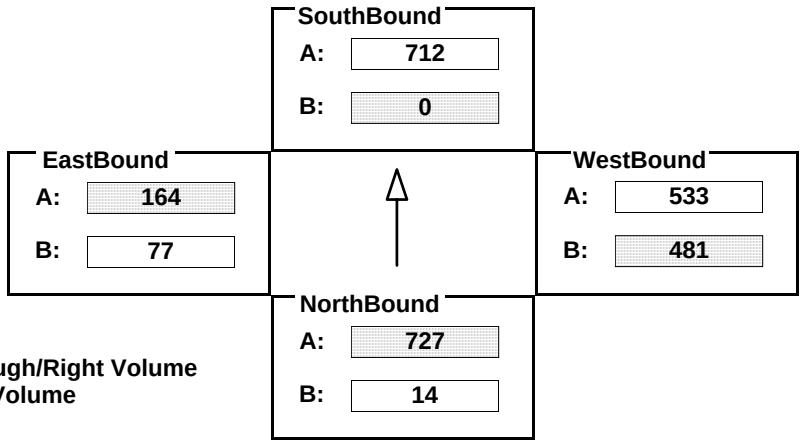
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	14	1454	0	0	1388	35	481	23	562	77	0	87
AMBIENT												
RELATED												
PROJECT												
TOTAL	14	1454	0	0	1388	35	481	23	562	77	0	87

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	0	0	0	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	0	0	0	1	0	1	0	0	0	0	0	0	0	1

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{727 + 0 + 481 + 164}{*1500} = 0.845$$

LOS = D

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CPROJPM

May 27, 2011 ,Friday 10:03:44 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: National Boulevard I/S No: 3

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

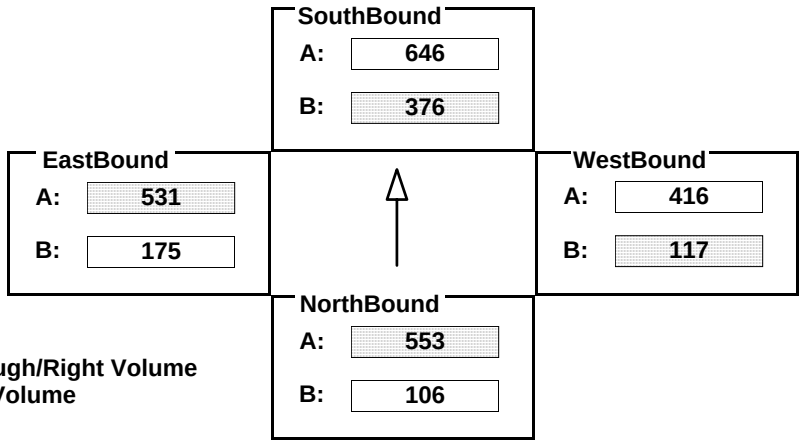
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	106	948	158	684	1056	235	117	416	284	175	921	140
AMBIENT												
RELATED												
PROJECT												
TOTAL	106	948	158	684	1056	235	117	416	284	175	921	140

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	1	0	0	2	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	1	0	0	1	0	1	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	Auto	Perm	OLA	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{553 + 376 + 117 + 531}{*1375} = 1.077$$

LOS = F

Developed by Chun Wong, 12/94

CPROJPM

May 27, 2011 ,Friday 10:03:44 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: National Boulevard W/E: I-10 EB On-Ramp I/S No: 4

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

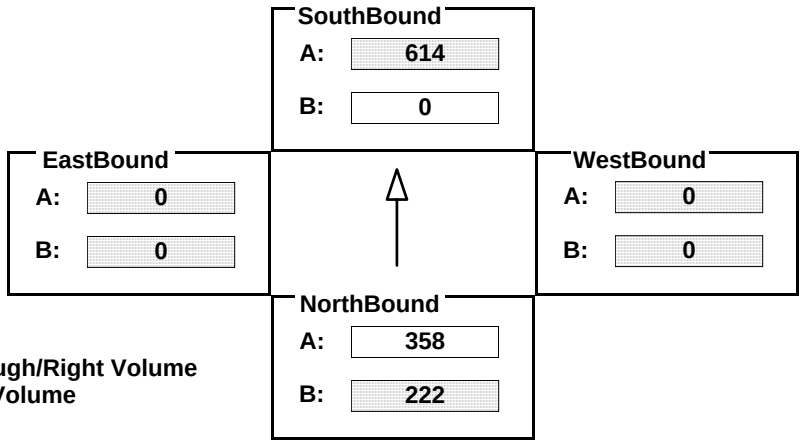
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	222	715	0	0	1144	614	0	0	0	0	0	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	222	715	0	0	1144	614	0	0	0	0	0	0

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	0	0	0	0	2	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Perm	Auto	<none>	<none>	<none>	<none>

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = +

$$V/C = \frac{222 + 614 + +}{*1500} = 0.487$$

LOS = A

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CPROJPM

May 27, 2011 ,Friday 10:03:44 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Hughes Avenue W/E: Venice Boulevard I/S No: 5

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

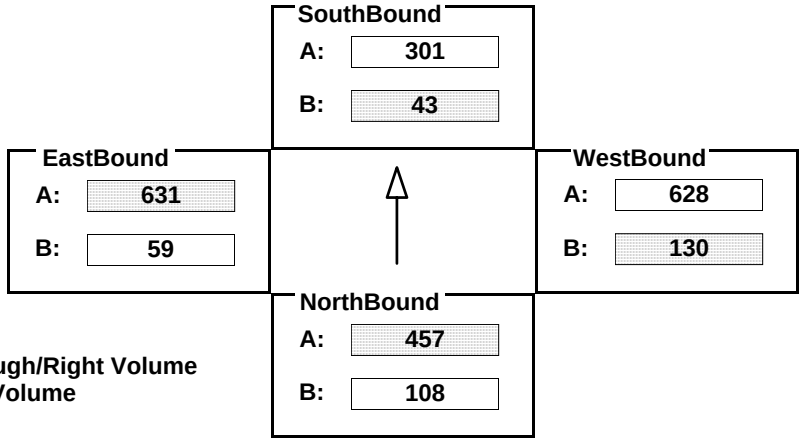
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	108	217	132	43	204	54	130	1884	45	59	1892	101
AMBIENT												
RELATED												
PROJECT												
TOTAL	108	217	132	43	204	54	130	1884	45	59	1892	101

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	3	0	0	1	0	1	0	3	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{457 + 43 + 130 + 631}{*1500} = 0.771$$

LOS = C

Developed by Chun Wong, 12/94

CPROJPM

May 27, 2011 ,Friday 10:03:44 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Bagley Avenue W/E: Venice Boulevard I/S No: 6

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

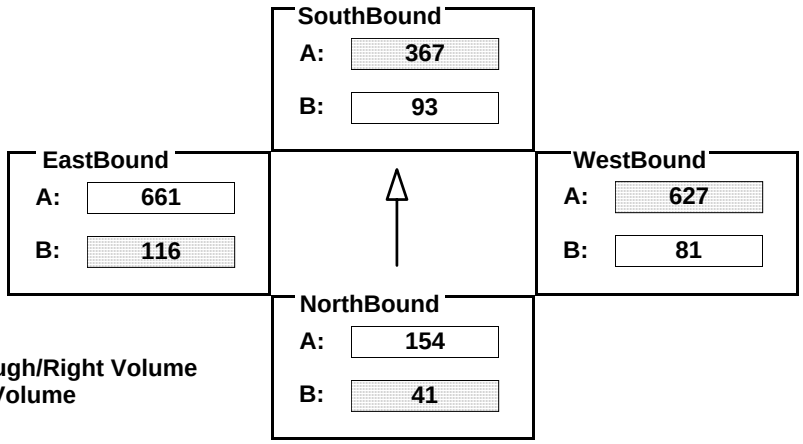
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	41	108	46	93	174	100	81	1881	73	116	1874	110
AMBIENT												
RELATED												
PROJECT												
TOTAL	41	108	46	93	174	100	81	1881	73	116	1874	110

LANE	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	3	0	0	1	0	1	0	2	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{41 + 367 + 627 + 116}{*1375} = 0.767$$

LOS = C

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May 27, 2011 ,Friday 10:03:44 AM

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INTERSECTION DATA SUMMARY SHEET

N/S: Culver Boulevard W/E: Venice Boulevard I/S No: 7

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

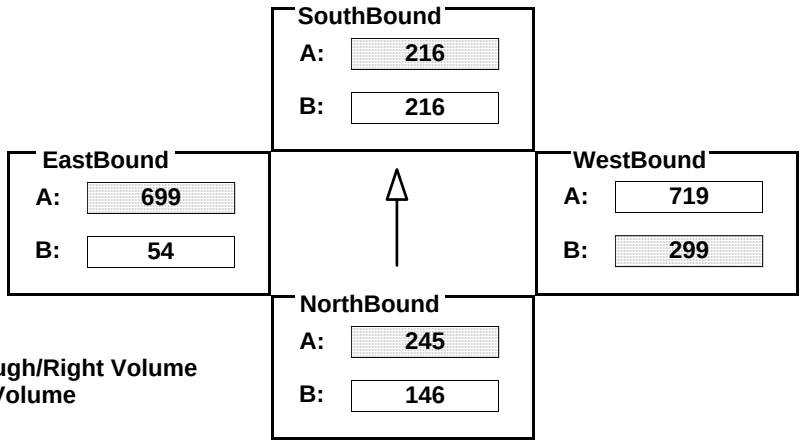
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	146	83	988	308	74	49	543	1943	214	54	1999	99
AMBIENT												
RELATED												
PROJECT												
TOTAL	146	83	988	308	74	49	543	1943	214	54	1999	99

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	0	2	0	1	0	0	1	0	0	0

	WESTBOUND							EASTBOUND						
LANE	2	0	2	0	1	0	0	1	0	2	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	OLA	Split	Auto	Prot-Fix	Auto	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{245 + 216 + 299 + 699}{*1375} = 0.991$$

LOS = E

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May 27, 2011 ,Friday 10:03:44 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Boulevard W/E: Venice Boulevard I/S No: 8

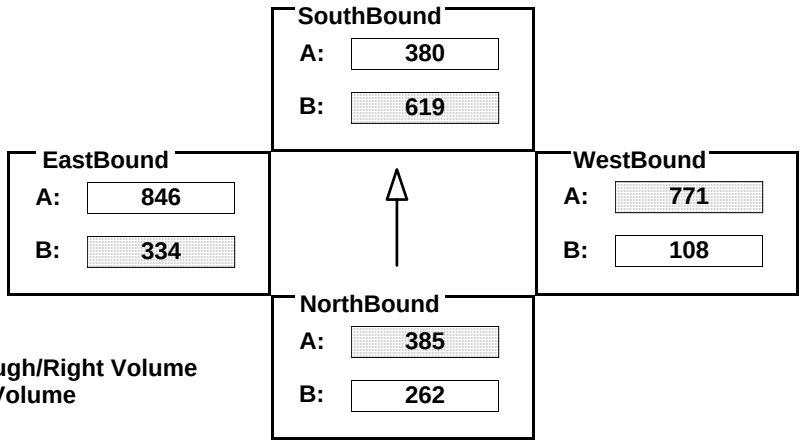
AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	262	769	67	619	380	259	108	2165	147	607	2354	185
AMBIENT												
RELATED												
PROJECT												
TOTAL	262	769	67	619	380	259	108	2165	147	607	2354	185
LANE	1 0 2 0 0 1 0			0 1 1 0 0 1 0			1 0 2 0 1 0 0			2 0 2 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Split	OLA		Split	Auto		Prot-Var	Auto		Prot-Var	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{385 + 619 + 771 + 334}{*1375} = 1.464$$

LOS = F

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May 27, 2011 ,Friday 10:03:44 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: National Boulevard W/E: Venice Boulevard I/S No: 9

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

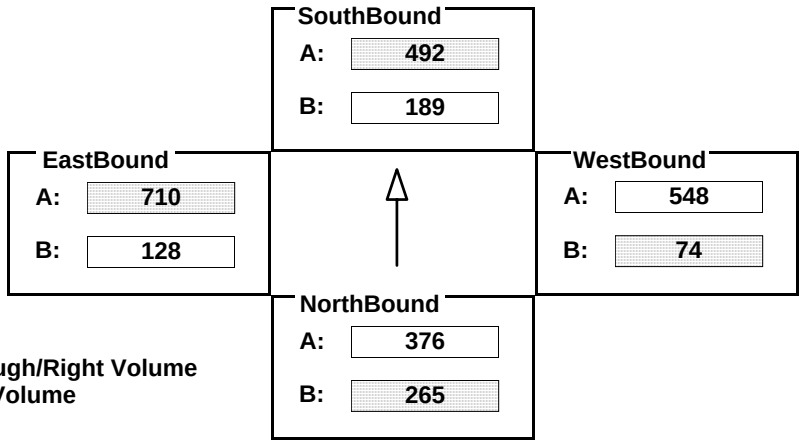
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	265	641	111	189	859	125	135	1644	66	233	2131	538
AMBIENT												
RELATED												
PROJECT												
TOTAL	265	641	111	189	859	125	135	1644	66	233	2131	538

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	2	0	3	0	0	1	0	2	0	3	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Prot-Fix	Auto	Prot-Fix	Auto	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{265 + 492 + 74 + 710}{*1375} = 1.051$$

LOS = F

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May 27, 2011 ,Friday 10:03:44 AM

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INTERSECTION DATA SUMMARY SHEET

N/S: Helms Avenue W/E: Venice Boulevard I/S No: 10

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

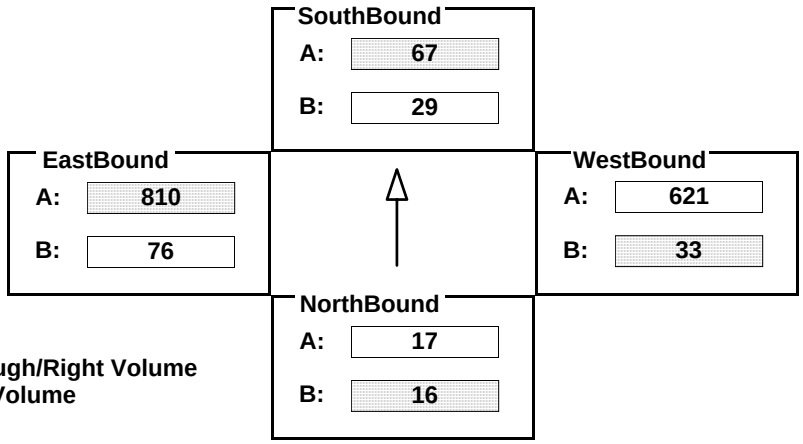
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	16	1	10	29	9	29	33	1856	8	76	2397	34
AMBIENT												
RELATED												
PROJECT												
TOTAL	16	1	10	29	9	29	33	1856	8	76	2397	34

LANE	0	1	0	0	0	1	0	0	0	0	1	0	0	0	1	0	2	0	1	0	0	1	0	2	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{16 + 67 + 33 + 810}{*1500} = 0.547$$

LOS = A

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INTERSECTION DATA SUMMARY SHEET

N/S: Cattaraugus Avenue W/E: Venice Boulevard I/S No: 11

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

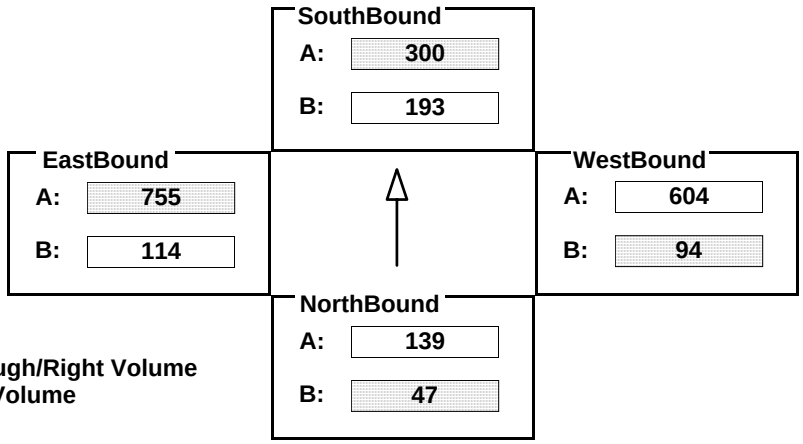
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	47	64	28	193	75	32	94	1732	79	114	2252	13
AMBIENT												
RELATED												
PROJECT												
TOTAL	47	64	28	193	75	32	94	1732	79	114	2252	13

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{47 + 300 + 94 + 755}{*1500} = 0.727$$

LOS = C

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May 27, 2011 ,Friday 10:03:44 AM

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INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Venice Boulevard I/S No: 12

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

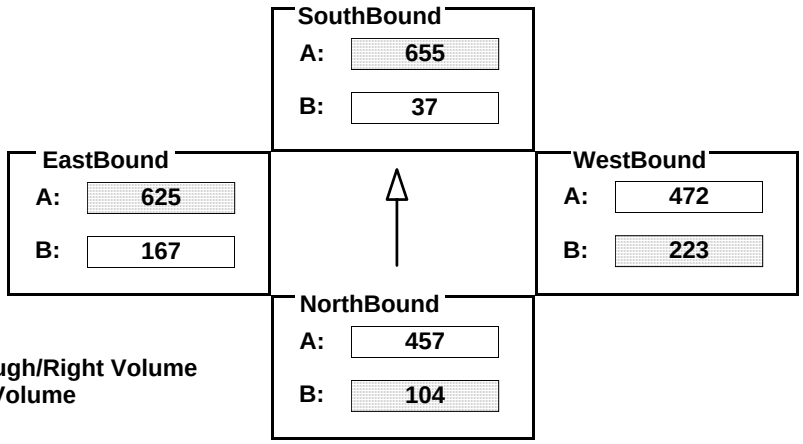
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	104	1255	116	37	1619	346	223	1417	35	304	1875	249
AMBIENT												
RELATED												
PROJECT												
TOTAL	104	1255	116	37	1619	346	223	1417	35	304	1875	249

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	3	0	0	1	0	2	0	3	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{104 + 655 + 223 + 625}{*1375} = 1.099$$

LOS = F

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May 27, 2011 ,Friday 10:03:44 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Hughes Av/Duquesne Av W/E: Washington Boulevard I/S No: 13

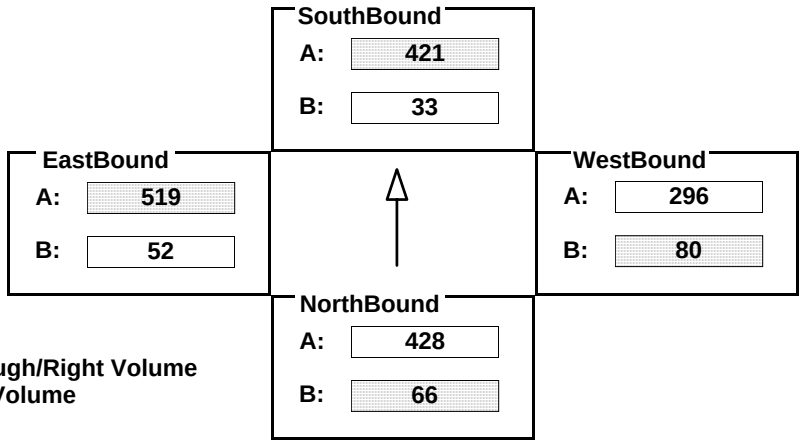
AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	66	407	21	33	352	69	80	539	52	52	798	240
AMBIENT												
RELATED												
PROJECT												
TOTAL	66	407	21	33	352	69	80	539	52	52	798	240
LANE	1	0	0	0	1	0	0	1	0	0	0	1	0	0	1	0	1	0	1	0	0	1	0	1	0	1	0	0
	Phasing		RTOR		Phasing		RTOR		Phasing		RTOR		Phasing		RTOR	
SIGNAL	Perm		Auto		Perm		Auto		Perm		Auto		Perm		Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{66 + 421 + 80 + 519}{*1500} = 0.654$$

LOS = B

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May 27, 2011 ,Friday 10:03:44 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Duquesne Avenue W/E: Culver Boulevard I/S No: 14

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

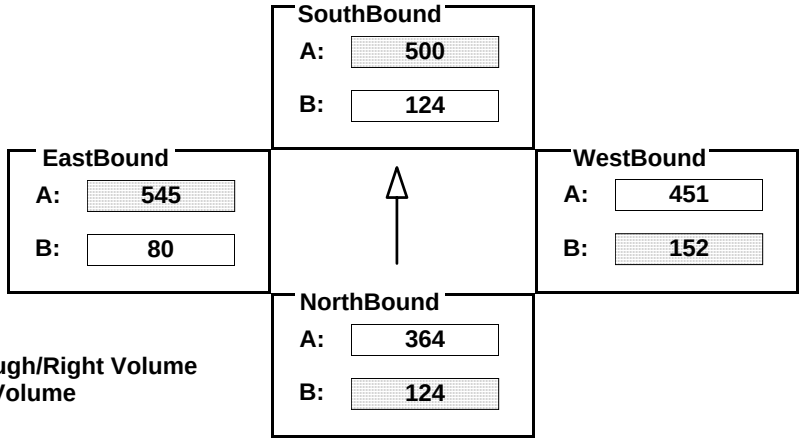
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	124	364	197	124	500	82	152	879	23	80	992	97
AMBIENT												
RELATED												
PROJECT												
TOTAL	124	364	197	124	500	82	152	879	23	80	992	97

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	1	0	0	1	0	1	0	1	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	1	0	1	0	1	0	0	1	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{124 + 500 + 152 + 545}{*1375} = 0.891$$

LOS = D

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May 27, 2011 ,Friday 10:03:44 AM

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INTERSECTION DATA SUMMARY SHEET

N/S: Culver Boulevard W/E: Washington Bl/Irving Pl I/S No: 15

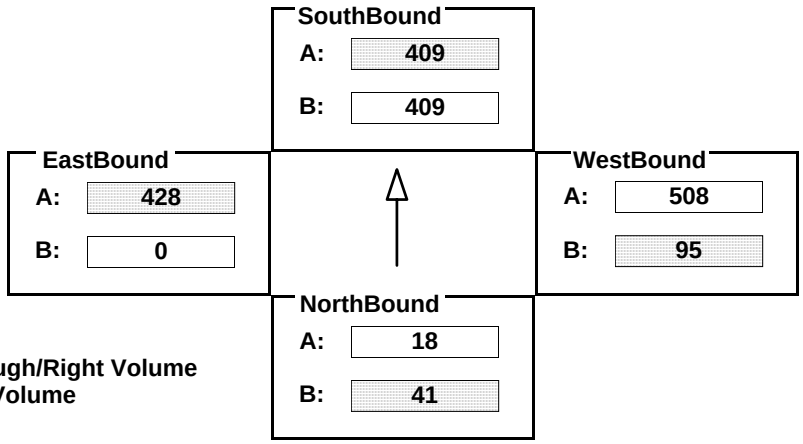
AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	41	0	66	812	0	6	95	1016	666	0	1225	60
AMBIENT									-409			
RELATED												
PROJECT												
TOTAL	41	0	66	812	0	6	95	1016	257	0	1225	60
LANE	1	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0	1	0	1	1	0	0	0	2	0	1	0	0
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	Split	Auto	Prot-Fix	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{41 + 409 + 95 + 428}{*1375} = 0.638$$

LOS = B

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May 27, 2011 ,Friday 10:03:44 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Main Street W/E: Culver Boulevard I/S No: 16

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

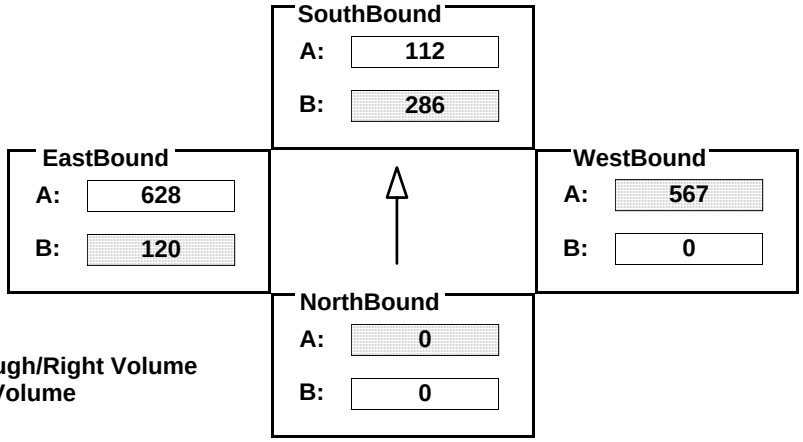
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	13	0	286	13	172	0	1583	119	120	1883	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	13	0	286	13	172	0	1583	119	120	1883	0

	NORTHBOUND							SOUTHBOUND						
LANE	0	0	0	0	0	0	0	1	0	0	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	0	0	2	0	1	0	0	1	0	3	0	0	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	<none>	<none>	Split	Auto	Perm	Auto	Prot-Fix	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 286 + 567 + 120}{*1425} = 0.613$$

LOS = B

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May 27, 2011 ,Friday 10:03:44 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Culver Boulevard W/E: Washington Bl/Canfield Av I/S No: 17

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

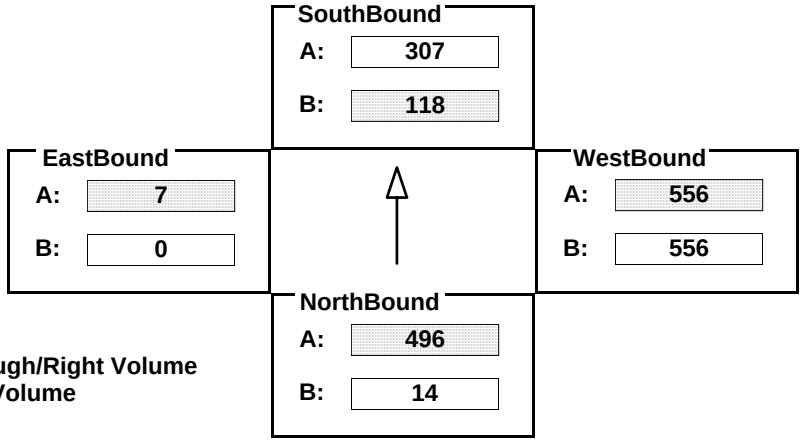
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	14	991	1110	118	605	9	1082	30	219	0	0	21
AMBIENT												
RELATED												
PROJECT												
TOTAL	14	991	1110	118	605	9	1082	30	219	0	0	21

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	2	0	1	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	1	0	0	0	1	0	0	0	0	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	OLA	Prot-Fix	Auto	Split	Auto	<none>	OLA

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{496 + 118 + 556 + 7}{*1425} = 0.756$$

LOS = C

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May 27, 2011 ,Friday 10:03:44 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Robertson Bl/Higuera St W/E: Washington Boulevard I/S No: 18

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

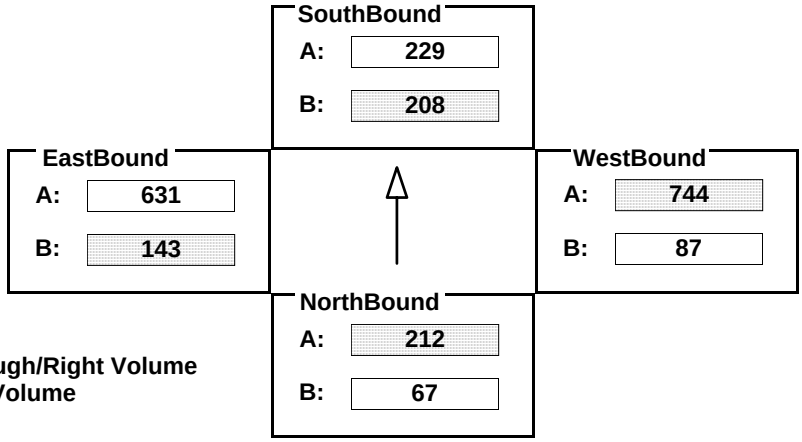
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	67	212	88	208	229	191	87	1002	485	143	1169	93
AMBIENT												
RELATED												
PROJECT												
TOTAL	67	212	88	208	229	191	87	1002	485	143	1169	93

LANE	1	0	1	0	0	1	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	1	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Fix	Auto	Prot-Fix	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{212 + 208 + 744 + 143}{*1425} = 0.847$$

LOS = D

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May 27, 2011 ,Friday 10:03:44 AM

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INTERSECTION DATA SUMMARY SHEET

N/S: Landmark Street W/E: Washington Boulevard I/S No: 19

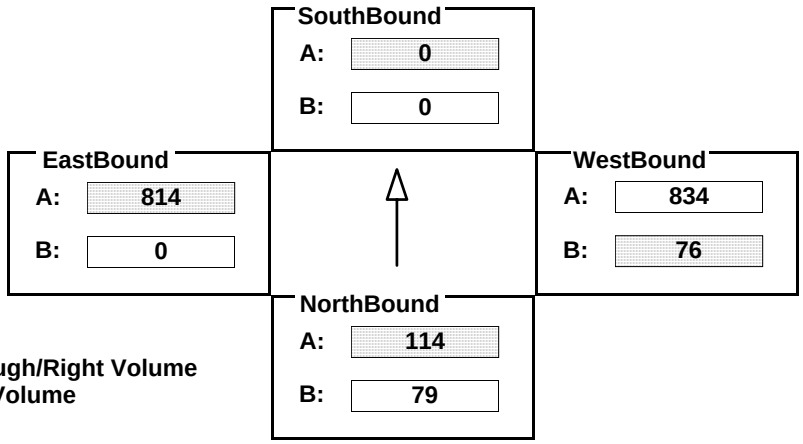
AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	79	0	114	0	0	0	76	1667	0	0	1574	54
AMBIENT												
RELATED												
PROJECT												
TOTAL [1]	79	0	114	0	0	0	76	1667	0	0	1574	54
LANE	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	1	0	1	0	0
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{114 + 0 + 76 + 814}{*1500} = 0.599$$

LOS = A

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[1] Note: Pass-by credit not applied at this location.

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May 27, 2011 ,Friday 10:03:44 AM

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INTERSECTION DATA SUMMARY SHEET

N/S: National Boulevard W/E: Washington Boulevard I/S No: 20

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

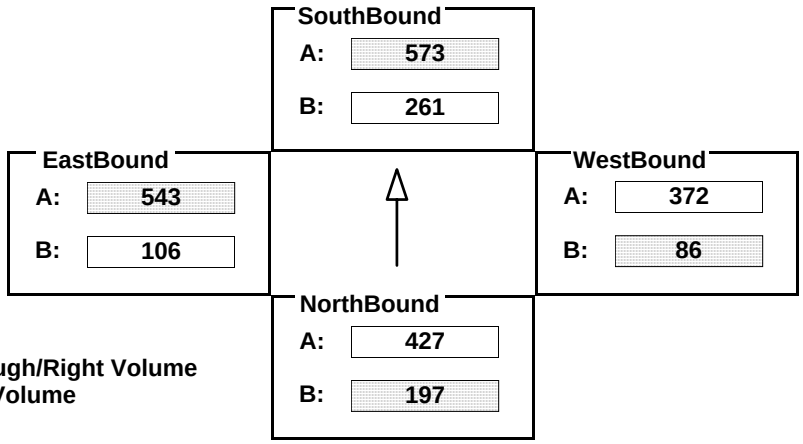
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	358	730	123	475	1067	79	86	904	213	106	1085	323
AMBIENT												
RELATED												
PROJECT												
TOTAL	358	730	123	475	1067	79	86	904	213	106	1085	323

	NORTHBOUND							SOUTHBOUND						
LANE	2	0	1	0	1	0	0	2	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	1	0	0	1	0	2	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{197 + 573 + 86 + 543}{*1375} = 0.947$$

LOS = E

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```
Default Scenario           Thu May 26, 2011 16:04:10                Page 11-1
------------------------------------------------------------------------------
------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
******************************************************************************
Intersection #211 WESLEY AV/WASHINGTON BL [CUMULATIVE (2014) + PROJECT PM]
******************************************************************************
Average Delay (sec/veh):     16.2   Worst Case Level Of Service:       F[521.5]
******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  0  1! 0  0    0  0  0  0  0    0  0  1  1  0    1  0  2  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      54    0    33     0    0     0     0 1597    34    44 1084     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   54    0    33     0    0     0     0 1597    34    44 1084     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    54    0    33     0    0     0     0 1597    34    44 1084     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Final Vol.:    54    0    33     0    0     0     0 1597    34    44 1084     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.8 xxxx   6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5 xxxx   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 2244 xxxx   816  xxxx xxxx xxxxx  xxxx xxxx xxxxx  1631 xxxx xxxxx
Potent Cap.:   36 xxxx   325  xxxx xxxx xxxxx  xxxx xxxx xxxxx   403 xxxx xxxxx
Move Cap.:     33 xxxx   325  xxxx xxxx xxxxx  xxxx xxxx xxxxx   403 xxxx xxxxx
Volume/Cap:  1.61 xxxx  0.10  xxxx xxxx  xxxx  xxxx xxxx  xxxx  0.11 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Queue:      xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   0.4 xxxx xxxxx
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx  15.0 xxxx xxxxx
LOS by Move:   *    *     *     *    *     *     *    *     *     C    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx   51 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  8.4 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd StpDel:xxxxx  522 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    F     *     *    *     *     *    *     *     *    *     *
ApproachDel:     521.5           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:       F               *                *                *
```

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INTERSECTION DATA SUMMARY SHEET

N/S: Wesley Avenue/Driveway W/E: Washington Boulevard I/S No: 21

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

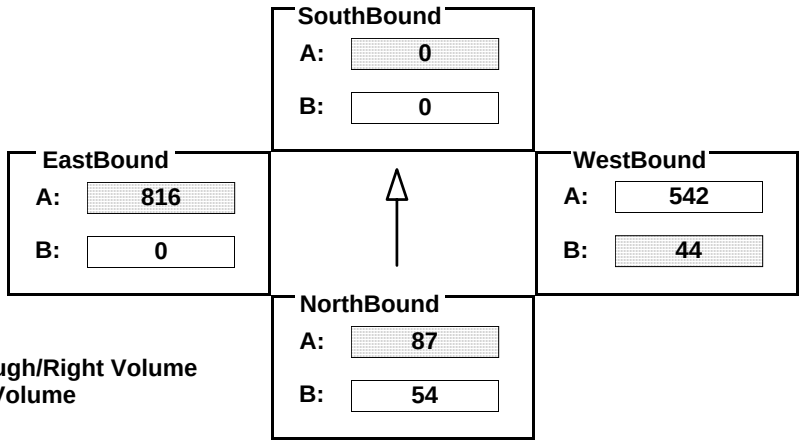
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	54	0	33	0	0	0	44	1084	0	0	1597	34
AMBIENT												
RELATED												
PROJECT												
TOTAL	54	0	33	0	0	0	44	1084	0	0	1597	34

LANE	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	1	0	1	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	<none>	<none>	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{87 + 0 + 44 + 816}{1200} = 0.789$$

LOS = C

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May 27, 2011 ,Friday 10:03:44 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Helms Avenue W/E: Washington Boulevard I/S No: 22

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

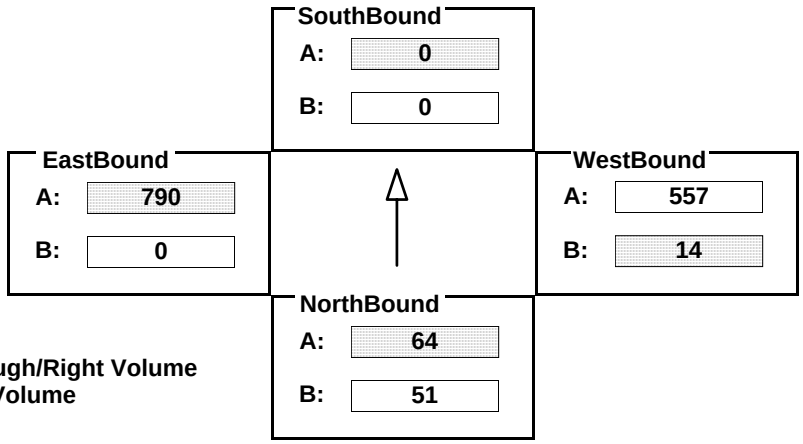
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	51	0	13	0	0	0	14	1113	0	0	1549	31
AMBIENT												
RELATED												
PROJECT												
TOTAL	51	0	13	0	0	0	14	1113	0	0	1549	31

LANE	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	1	0	1	0	0

	NB Phasing	NB RTOR	SB Phasing	SB RTOR	WB Phasing	WB RTOR	EB Phasing	EB RTOR
SIGNAL	Split	Auto	<none>	<none>	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{64 + 0 + 14 + 790}{*1500} = 0.509$$

LOS = A

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #231 CATTARAUGUS AV/WASHINGTON AV [CUMULATIVE (2014) + PROJECT PM]

Average Delay (sec/veh): 31.9 Worst Case Level Of Service: F[778.5]

Approach:	North Bound				South Bound				East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	1	0	1	0	0	1	0	1	0
Volume Module:																				
Base Vol:	4	2	3	60		2	51				71	1503		9		11	1050		77	
Growth Adj:	1.00	1.00	1.00	1.00		1.00	1.00				1.00	1.00		1.00		1.00	1.00		1.00	
Initial Bse:	4	2	3	60		2	51				71	1503		9		11	1050		77	
User Adj:	1.00	1.00	1.00	1.00		1.00	1.00				1.00	1.00		1.00		1.00	1.00		1.00	
PHF Adj:	1.00	1.00	1.00	1.00		1.00	1.00				1.00	1.00		1.00		1.00	1.00		1.00	
PHF Volume:	4	2	3	60		2	51				71	1503		9		11	1050		77	
Reduct Vol:	0	0	0	0		0	0				0	0		0		0	0		0	
Final Vol.:	4	2	3	60		2	51				71	1503		9		11	1050		77	
Critical Gap Module:																				
Critical Gp:	7.5	6.5	6.9	7.5		6.5	6.9				4.1	xxxx	xxxxx			4.1	xxxx	xxxxx		
FollowUpTim:	3.5	4.0	3.3	3.5		4.0	3.3				2.2	xxxx	xxxxx			2.2	xxxx	xxxxx		
Capacity Module:																				
Cnflict Vol:	2197	2799	756	2005		2765	564				1127	xxxx	xxxxx			1512	xxxx	xxxxx		
Potent Cap.:	26	19	355	36		20	474				627	xxxx	xxxxx			448	xxxx	xxxxx		
Move Cap.:	19	16	355	29		17	474				627	xxxx	xxxxx			448	xxxx	xxxxx		
Volume/Cap:	0.22	0.12	0.01	2.09		0.12	0.11				0.11	xxxx	xxxx			0.02	xxxx	xxxx		
Level Of Service Module:																				
Queue:	xxxxx	xxxx	xxxxx	xxxxx		xxxx	xxxxx				0.4	xxxx	xxxxx			0.1	xxxx	xxxxx		
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx		xxxx	xxxxx				11.5	xxxx	xxxxx			13.2	xxxx	xxxxx		
LOS by Move:	*	*	*	*		*	*				B	*	*			B	*	*		
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx		26	xxxxx		xxxx		49	xxxxx		xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx		1.1	xxxxx		xxxxx	11.7		xxxxx		0.4	xxxx	xxxxx			0.1	xxxx	xxxxx		
Shrd StpDel:	xxxxx		206	xxxxx		xxxxx	778		xxxxx		11.5	xxxx	xxxxx			13.2	xxxx	xxxxx		
Shared LOS:	*		F	*		*	F		*		B	*	*			B	*	*		
ApproachDel:	205.8					778.5					xxxxxx					xxxxxx				
ApproachLOS:	F					F					*					*				

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INTERSECTION DATA SUMMARY SHEET

N/S: Cattaraugus Avenue W/E: Washington Boulevard I/S No: 23

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

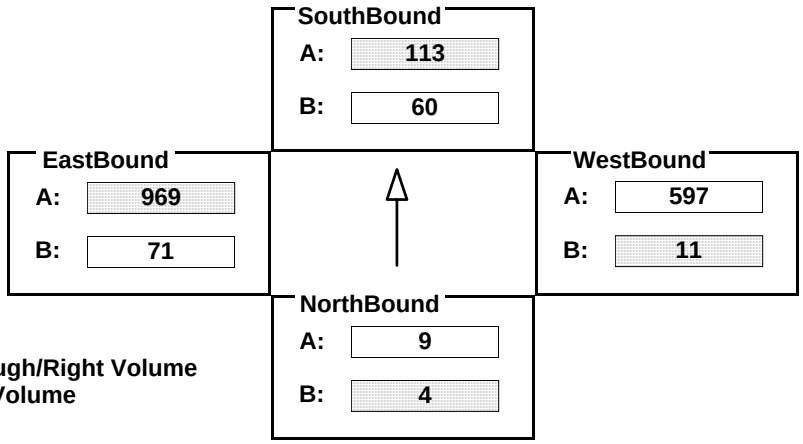
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	4	2	3	60	2	51	11	1050	77	71	1503	9
AMBIENT												
RELATED												
PROJECT												
TOTAL	4	2	3	60	2	51	11	1050	77	71	1503	9

LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{4 + 113 + 11 + 969}{1200} = 0.914$$

LOS = E

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May 27, 2011 ,Friday 10:03:44 AM

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INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Washington Boulevard I/S No: 24

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	150	1200	58	227	1755	57	70	824	127	213	1283	157
AMBIENT												
RELATED												
PROJECT												
TOTAL	150	1200	58	227	1755	57	70	824	127	213	1283	157

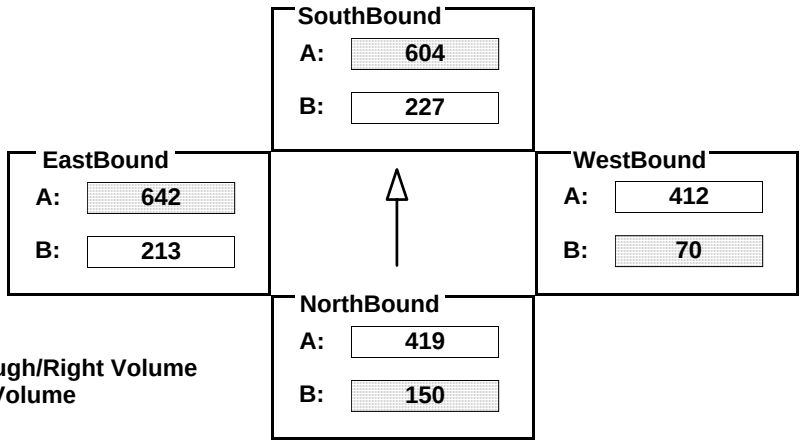
	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	1	0	0	1	0	2	0	1	0	0

	NORTHBOUND		SOUTHBOUND	
	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto

	WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	0	1	0	1	0	2	0	0	1	0

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{150 + 604 + 70 + 642}{*1375} = 0.996$$

LOS = E

Developed by Chun Wong, 12/94

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May 27, 2011 ,Friday 10:03:44 AM

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INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Fairfax Avenue I/S No: 25

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

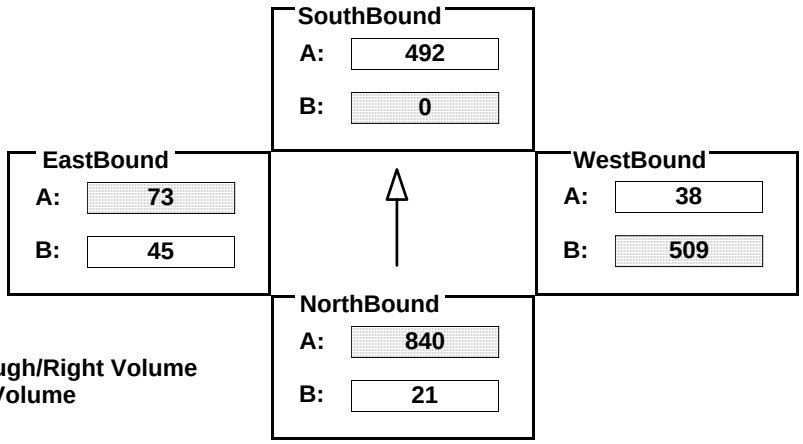
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	21	1679	1460	0	1450	27	926	19	19	45	4	24
AMBIENT												
RELATED												
PROJECT												
TOTAL	21	1679	1460	0	1450	27	926	19	19	45	4	24

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	0	2	0	0	0	2	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	2	0	0	0	1	0	0	0	0	0	1	0	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Free	Perm	Auto	Split	Auto	Split	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{840 + 0 + 509 + 73}{*1425} = 0.928$$

LOS = E

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May 27, 2011 ,Friday 10:03:44 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Wesley Street W/E: National Boulevard I/S No: 26

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

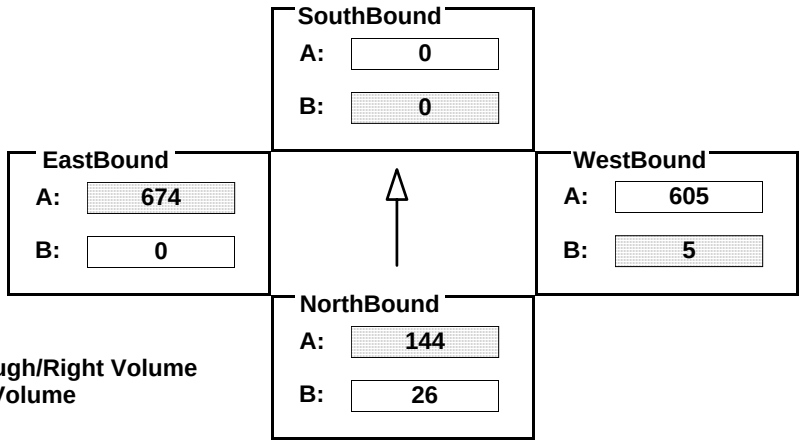
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	26	0	118	0	0	0	5	1210	0	0	1347	5
AMBIENT												
RELATED												
PROJECT												
TOTAL	26	0	118	0	0	0	5	1210	0	0	1347	5

LANE	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	2	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{144 + 0 + 5 + 674}{*1500} = 0.479$$

LOS = A

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May 27, 2011 ,Friday 10:03:44 AM

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INTERSECTION DATA SUMMARY SHEET

N/S: Hayden Avenue W/E: National Boulevard I/S No: 27

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

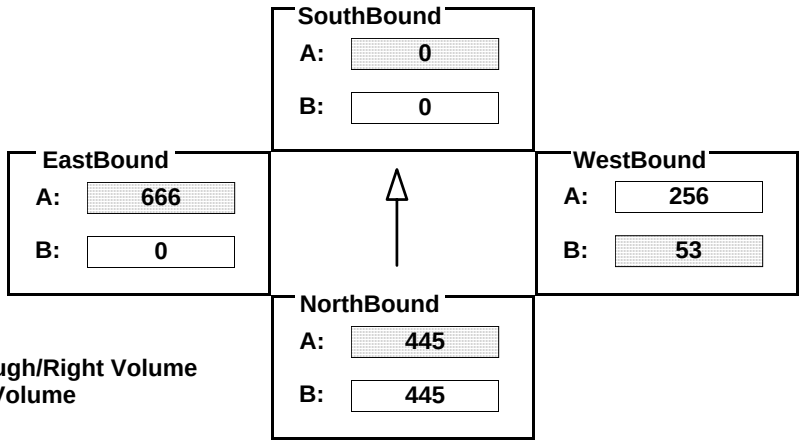
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	693	0	197	0	0	0	53	511	0	0	1332	161
AMBIENT												
RELATED												
PROJECT												
TOTAL	693	0	197	0	0	0	53	511	0	0	1332	161

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	0	0	0	0	1	0	0	0	0	0	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	0	0	0	0	0	2	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Split	Auto	<none>	<none>	Prot-Fix	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{445 + 0 + 53 + 666}{*1425} = 0.747$$

LOS = C

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May 27, 2011 ,Friday 10:03:44 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Jefferson Boulevard W/E: National Boulevard I/S No: 28

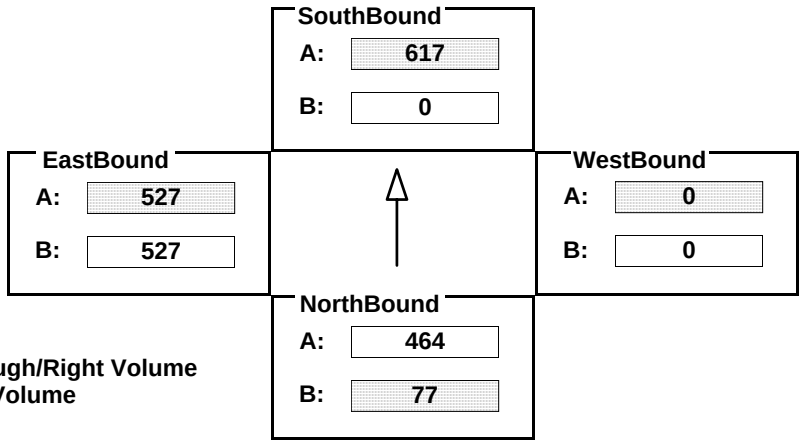
AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	77	927	0	0	617	520	0	0	0	1053	0	122
AMBIENT												
RELATED												
PROJECT												
TOTAL	77	927	0	0	617	520	0	0	0	1053	0	122
LANE	1 0 2	0 0 1	0	1 0 1	0 0 1	0	0 0 0	1 0 0	0	1 1 0	0 0 1	0
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Split	Auto		Split	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{77 + 617 + 0 + 527}{*1425} = 0.787$$

LOS = C

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May 27, 2011 ,Friday 10:03:44 AM

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INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Jefferson Boulevard I/S No: 29

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

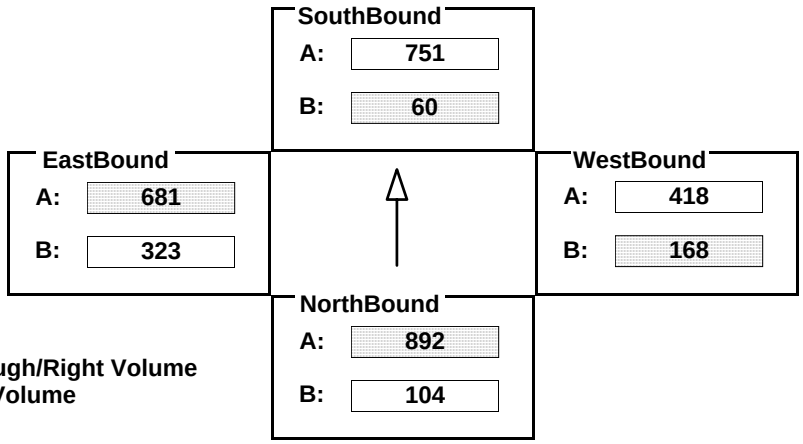
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	104	2360	315	60	2253	245	306	836	102	588	1086	275
AMBIENT												
RELATED												
PROJECT												
TOTAL	104	2360	315	60	2253	245	306	836	102	588	1086	275

	NORTHBOUND							SOUTHBOUND						
LANE	1	0	2	0	1	0	0	1	0	3	0	0	1	0

	WESTBOUND							EASTBOUND						
LANE	2	0	2	0	0	1	0	2	0	1	0	1	0	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	OLA	Prot-Var	Auto	Prot-Var	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{892 + 60 + 168 + 681}{*1375} = 1.240$$

LOS = F

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May 27, 2011 ,Friday 10:03:44 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Jefferson Boulevard W/E: Higuera St/Rodeo Rd I/S No: 30

AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

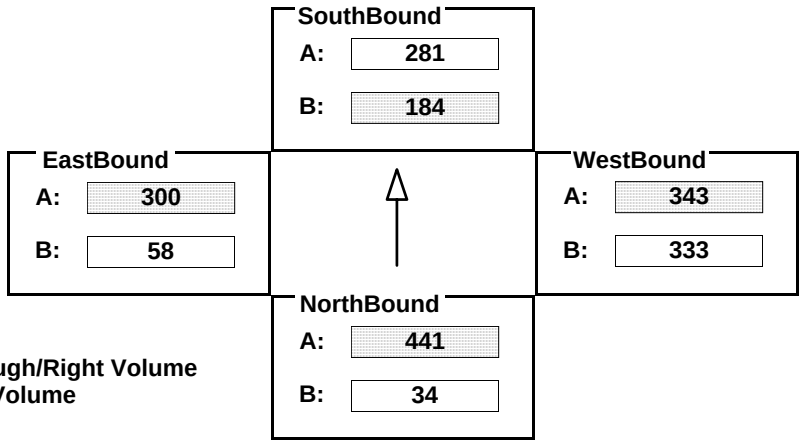
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	34	882	1026	184	561	52	605	343	67	58	600	165
AMBIENT												
RELATED												
PROJECT												
TOTAL	34	882	1026	184	561	52	605	343	67	58	600	165

LANE	1	0	2	0	0	1	0	1	0	2	0	0	1	0	2	0	1	0	0	1	0	1	0	2	0	0	1	0

	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Free	Perm	Auto	Split	Auto	Split	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + A(E/B)

$$V/C = \frac{441 + 184 + 343 + 300}{*1425} = 0.820$$

LOS = D

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May 27, 2011 ,Friday 10:03:44 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: La Cienega Boulevard W/E: Rodeo Road I/S No: 31

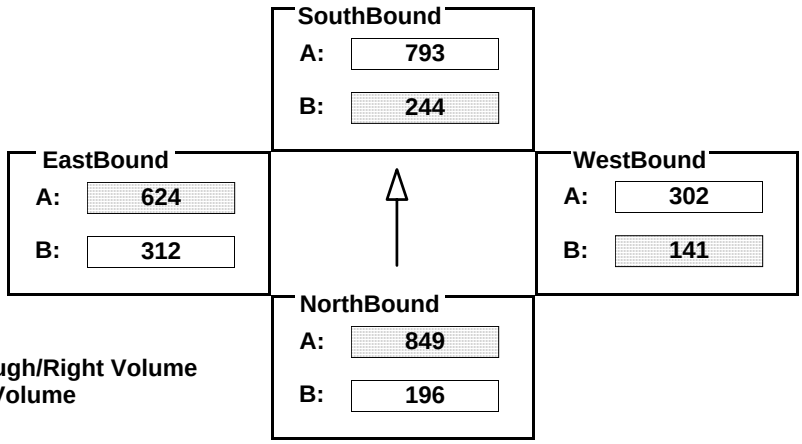
AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	356	2309	237	444	2250	129	257	603	150	312	1247	383
AMBIENT												
RELATED												
PROJECT												
TOTAL	356	2309	237	444	2250	129	257	603	150	312	1247	383
LANE	2 0 2 0 1 0 0			2 0 2 0 1 0 0			2 0 2 0 0 1 0			1 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Fix	Auto		Prot-Fix	Auto		Prot-Var	OLA		Prot-Var	OLA	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{849 + 244 + 141 + 624}{*1375} = 1.281$$

LOS = F

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```
Default Scenario           Thu May 26, 2011 16:04:10                Page 15-1
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #321 BRADDOCK DR/DUQUESNE AV [CUMULATIVE (2014) + PROJECT PM]
********************************************************************************
Cycle (sec):        100                Critical Vol./Cap. (X):         1.538
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):        160.3
Optimal Cycle:        0                Level Of Service:                    F
********************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     155  181   192     8   47    19   133  478   160    21  518    17
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  155  181   192     8   47    19   133  478   160    21  518    17
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:   155  181   192     8   47    19   133  478   160    21  518    17
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  155  181   192     8   47    19   133  478   160    21  518    17
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Final Vol.:   155  181   192     8   47    19   133  478   160    21  518    17
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.29 0.34  0.37  0.11 0.63  0.26  0.17 0.62  0.21  0.04 0.93  0.03
Final Sat.:   149  174   184    43  254   103    87  311   104    19  462    15
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     1.04 1.04  1.04  0.18 0.18  0.18  1.54 1.54  1.54  1.12 1.12  1.12
Crit Moves:       ****             ****             ****             ****
Delay/Veh:   78.3 78.3  78.3  14.0 14.0  14.0 271.1  271 271.1 103.8  104 103.8
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  78.3 78.3  78.3  14.0 14.0  14.0 271.1  271 271.1 103.8  104 103.8
LOS by Move:   F    F     F     B    B     B     F    F     F     F    F     F
ApproachDel:      78.3             14.0            271.1            103.8
Delay Adj:        1.00             1.00             1.00             1.00
ApprAdjDel:       78.3             14.0            271.1            103.8
LOS by Appr:        F                B                F                F
********************************************************************************
```

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May 27, 2011 ,Friday 10:03:44 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Braddock Drive W/E: Duquesne Avenue I/S No: 32

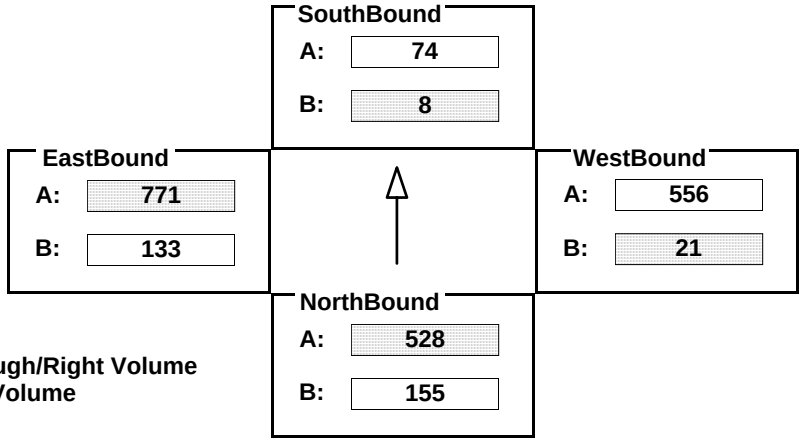
AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	155	181	192	8	47	19	21	518	17	133	478	160
AMBIENT												
RELATED												
PROJECT												
TOTAL	155	181	192	8	47	19	21	518	17	133	478	160
LANE	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR				
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto				

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{528 + 8 + 21 + 771}{1000} = 1.328$$

LOS = F

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```
Default Scenario           Thu May 26, 2011 16:04:10                Page 17-1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
*******************************************************************************
Intersection #331 LUCERNE AV/DUQUESNE AV [CUMULATIVE (2014) + PROJECT PM]
*******************************************************************************
Cycle (sec):        100                Critical Vol./Cap. (X):        1.109
Loss Time (sec):      0 (Y+R =  4 sec) Average Delay (sec/veh):        68.4
Optimal Cycle:        0                Level Of Service:                  F
*******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0   353    0    73    58  537     0     0  573   241
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0     0   353    0    73    58  537     0     0  573   241
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     0    0     0   353    0    73    58  537     0     0  573   241
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0   353    0    73    58  537     0     0  573   241
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Final Vol.:     0    0     0   353    0    73    58  537     0     0  573   241
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.00 0.00  0.00  0.83 0.00  0.17  0.10 0.90  0.00  0.00 1.00  1.00
Final Sat.:     0    0     0   438    0    91    54  496     0     0  517   574
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     xxxx xxxx  xxxx  0.81 xxxx  0.81  1.08 1.08  xxxx  xxxx 1.11  0.42
Crit Moves:                   ****             ****                   ****
Delay/Veh:    0.0  0.0   0.0  32.4  0.0  32.4  87.7 87.7   0.0   0.0 98.2  13.4
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0  0.0   0.0  32.4  0.0  32.4  87.7 87.7   0.0   0.0 98.2  13.4
LOS by Move:   *    *     *     D    *     D     F    F     *     *    F     B
ApproachDel:    xxxxxx            32.4            87.7            73.1
Delay Adj:       xxxxx            1.00            1.00            1.00
ApprAdjDel:     xxxxxx            32.4            87.7            73.1
LOS by Appr:         *               D               F               F
*******************************************************************************
```

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May 27, 2011 ,Friday 10:03:44 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Lucerne Avenue W/E: Duquesne Avenue I/S No: 33

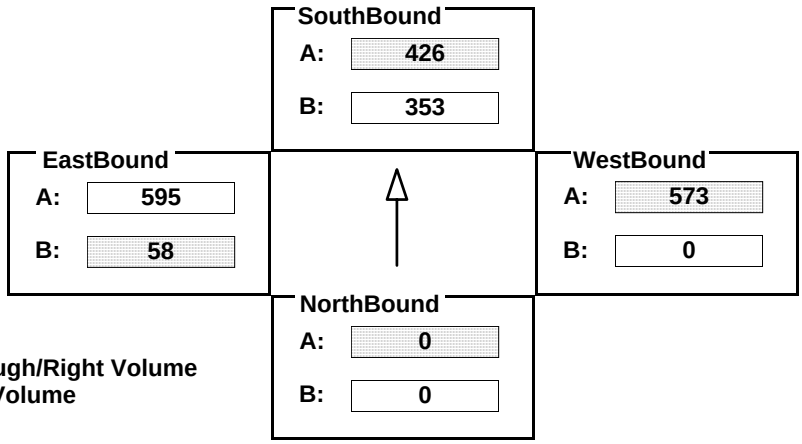
AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	0	353	0	73	0	573	241	58	537	0
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	0	353	0	73	0	573	241	58	537	0
LANE	0 0 0 0 0 0 0			0 0 0 0 0 0 1			0 0 1 0 0 1 0			0 1 0 0 0 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	<none>	<none>		Split	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 426 + 573 + 58}{1000} = 1.057$$

LOS = F

Developed by Chun Wong, 12/94

CPROJPM

May 27, 2011 ,Friday 10:03:44 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: Jefferson Boulevard W/E: Duquesne Avenue I/S No: 34

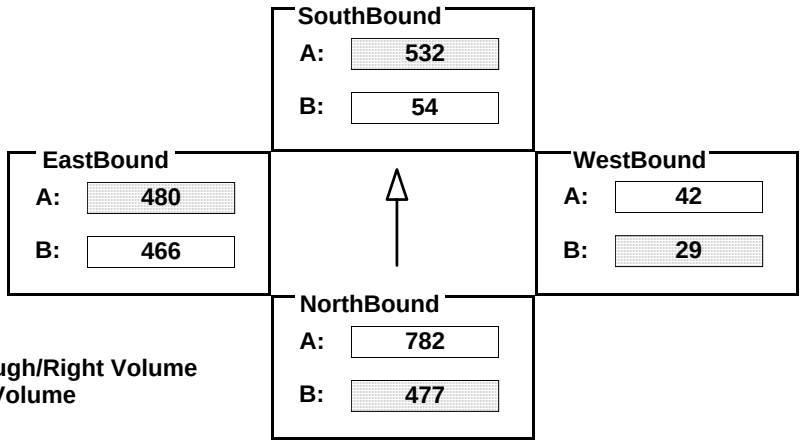
AM/PM: PM Comments: Cumulative (2014) Plus Project

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	477	1528	35	54	1064	212	29	42	21	466	64	416
AMBIENT												
RELATED												
PROJECT												
TOTAL	477	1528	35	54	1064	212	29	42	21	466	64	416
LANE	1 0 1 0 1 0 0			1 0 2 0 0 1 0			1 0 1 0 0 1 0			1 0 0 0 1 0 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Var	Auto		Prot-Var	Auto		Perm	OLA		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{477 + 532 + 29 + 480}{*1375} = 1.034$$

LOS = F

Developed by Chun Wong, 12/94

APPENDIX G

Capacity Calculation Worksheets

Cumulative (2014) Plus Project with Mitigation Measures

CMITAM

June 15, 2011 ,Wednesday 09:08:55 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: National Boulevard | W/E: Washington Boulevard | I/S No: 20

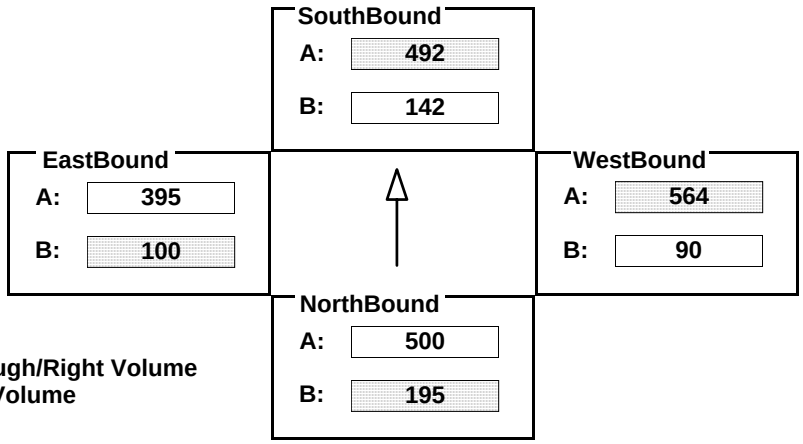
AM/PM: AM | Comments: Cumulative (2014) Plus Project MIT

COUNT DATE: | STUDY DATE: | GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	480	874	126	258	902	82	90	1353	340	100	789	188
AMBIENT	-125											-125
RELATED												
PROJECT												
TOTAL	355	874	126	258	902	82	90	1353	340	100	789	63
LANE	2 0 1 0 1 0 0			2 0 1 0 1 0 0			1 0 2 0 1 0 0			1 0 2 0 0 1 0		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Prot-Var	Auto		Prot-Var	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{195 + 492 + 564 + 100}{*1375} = 0.913$$

LOS = E

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Note: Northbound left-turn volume critical move was reduced from 265 to 195 vehicles per hour to obtain the mitigated V/C ratio. A reduction of 69 critical trips (125 x 0.55 = 69).

CMITPM

June 15, 2011 ,Wednesday 09:10:34 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: National Boulevard W/E: Washington Boulevard I/S No: 20

AM/PM: PM Comments: Cumulative (2014) Plus Project MIT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

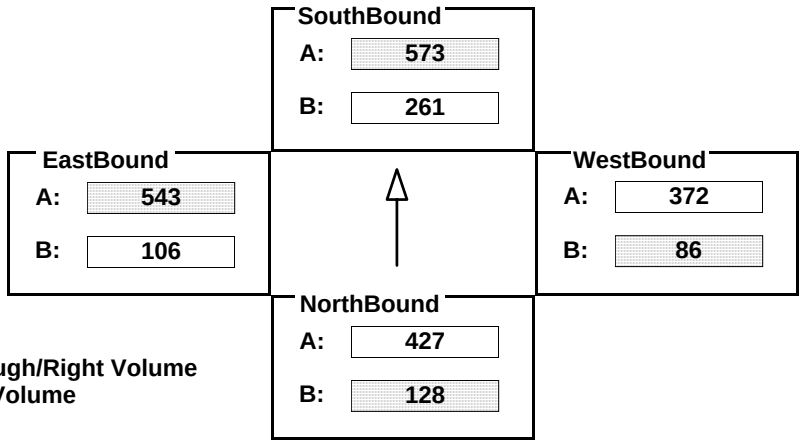
Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	358	730	123	475	1067	79	86	904	213	106	1085	323
AMBIENT	-125											-125
RELATED												
PROJECT												
TOTAL	233	730	123	475	1067	79	86	904	213	106	1085	198

LANE																									
	2	0	1	0	1	0	0	2	0	1	0	1	0	0	1	0	2	0	1	0	0	1	0	2	0	0	1	0

SIGNAL	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
	Prot-Var	Auto	Prot-Var	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{128 + 573 + 86 + 543}{*1375} = 0.897$$

LOS = D

Developed by Chun Wong, 12/94

Note: Northbound left-turn volume critical move was reduced from 197 to 128 vehicles per hour to obtain the mitigated V/C ratio. A reduction of 69 critical trips (125 x 0.55 = 69).

CMITAM

August 17, 2012 ,Friday 04:08:44 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: National Boulevard W/E: Washington Boulevard I/S No: 20

AM/PM: AM Comments: Cumulative (2014) Plus Project MIT - Alternative

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

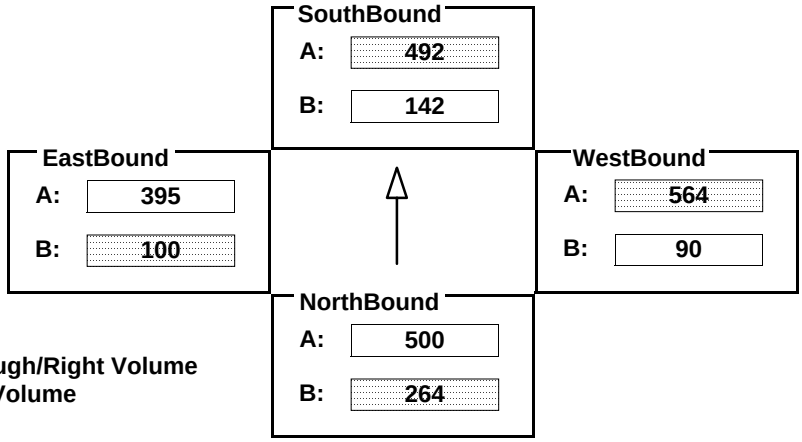
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	480	874	126	258	902	82	90	1353	340	100	789	188
AMBIENT												
RELATED												
PROJECT												
TOTAL	480	874	126	258	902	82	90	1353	340	100	789	188

	NORTHBOUND							SOUTHBOUND						
LANE	2	0	1	0	1	0	0	2	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	1	0	0	1	0	2	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{264 + 492 + 564 + 100}{*1375} = 0.963$$

LOS = E

0.963 - 0.03* = 0.933 LOS E
*ATCS Benefit

Developed by Chun Wong, 12/94

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: National Boulevard W/E: Washington Boulevard I/S No: 20

AM/PM: PM Comments: Cumulative (2014) Plus Project MIT - Alternative

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

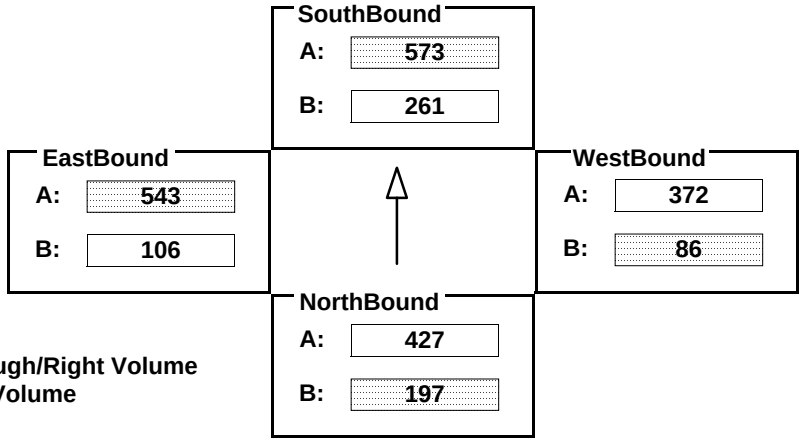
	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	358	730	123	475	1067	79	86	904	213	106	1085	323
AMBIENT												
RELATED												
PROJECT												
TOTAL	358	730	123	475	1067	79	86	904	213	106	1085	323

	NORTHBOUND							SOUTHBOUND						
LANE	2	0	1	0	1	0	0	2	0	1	0	1	0	0

	WESTBOUND							EASTBOUND						
LANE	1	0	2	0	1	0	0	1	0	2	0	0	1	0

	NORTHBOUND		SOUTHBOUND		WESTBOUND		EASTBOUND	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Prot-Var	Auto	Prot-Var	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{197 + 573 + 86 + 543}{*1375} = 0.947$$

LOS = E

0.947 - 0.03* = 0.917 LOS E
*ATCS Benefit

Developed by Chun Wong, 12/94