



Culver CITY

MIKE BALKMAN COUNCIL CHAMBERS
9770 CULVER BOULEVARD
CULVER CITY, CALIFORNIA 90232-0507
CITY HALL Tel. (310) 253-5710
FAX (310) 253-5721

**PLANNING COMMISSION
MEETING AGENDA
WEDNESDAY, DECEMBER 11, 2013
7:00 P.M.**

PUBLIC COMMENT

The Planning Commission will listen to the public on any item on the agenda or item of interest that is not on the agenda. The Planning Commission cannot legally take action on any item not scheduled on the agenda. Such items may be referred for administrative action or scheduled on a future agenda.

If you wish to speak to the Commissioners, please complete a Speaker's Card and present it to the Secretary before the agenda item is called. You will be called to the podium by name when it is your turn to speak to the Commissioners.

PUBLIC COMMENT FOR ITEMS ON THE AGENDA

Persons wishing to speak on agenda items will be called at the time the agenda item is brought forward. Comments will generally be limited to five minutes per speaker; however, a three-minute limit may be declared by the Chairperson for agenda items for which many Speaker Cards have been submitted.

PUBLIC COMMENT FOR ITEMS NOT ON THE AGENDA

A total of twenty minutes shall be devoted to audience participation at the beginning of the agenda. Speakers will be called on in the order cards were received by the Secretary. If additional time is needed, the Chairperson will allow for same at the end of the agenda.

When the Secretary calls your name, please advance to the podium and state your name and city of residence. Speakers must limit their comments to five minutes. A three-minute limit may be declared by the Chairperson if there is a large number of individuals desiring to address the Commissioners.

NOTE: AT OR ABOUT 11:00 P.M., COMMISSION MEMBERS WILL DETERMINE WHETHER TO CONTINUE WITH DISCUSSION OF REMAINING ITEMS ON THE AGENDA OR TO CARRY SOME/ALL OF THE ITEMS OVER TO A FUTURE MEETING DATE.

CELL PHONES AND OTHER DISTRACTIONS

Use of cell phones, pagers and other communication devices is prohibited while the Planning Commission Meeting is in session. Please turn all devices off or place on silent alert and leave the Chambers to use. During the meeting, please refrain from applause or other actions that may be disruptive to the speakers or the conduct of City business.

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ALD

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AGENDA
Planning Commission
Wednesday, December 11, 2013
7:00 p.m.
Mike Balkman Council Chambers

CALL TO ORDER & ROLL CALL

Scott Wyant, Chair
Linda Smith-Frost, Vice Chair
Kevin Lachoff, Commissioner
Dana Amy Sayles, Commissioner
David VonCannon, Commissioner

PLEDGE OF ALLEGIANCE

PUBLIC COMMENT – Items Not On The Agenda

PUBLIC HEARINGS

PH-1.: Conditional Use Permit to allow a drive-through car wash as part of an existing Chevron gas station located at 11197 Washington Place.
Recommendation: Adopt Resolution approving the Conditional Use Permit

CONSENT CALENDAR *Note: Consent Calendar items are considered to be routine in nature and may be approved by one motion. Public requests to discuss Consent Calendar items must be filed with the Secretary before the Consent Calendar is called.*

C-1 Approval of Minutes of November 20, 2013.

ITEMS FROM STAFF

ITEMS FROM PLANNING COMMISSION

ADJOURN

Upcoming Public Meeting Schedule –Tentative – 2013/2014

Date	Day	Time	Location
<i>City Council</i>			
<i>December 23, 2013</i>	<i>Monday</i>	<i>7:00PM</i>	<i>Council Chambers</i>
<i>Civil Service Commission</i>			
<i>January , 2014</i>	<i>Wednesday</i>	<i>7:00PM</i>	<i>Council Chambers</i>
<i>Cultural Affairs Commission</i>			
<i>January 14, 2014</i>	<i>Tuesday</i>	<i>7:00PM</i>	<i>Council Chambers</i>
<i>Parks & Recreation Commission</i>			
<i>January 7, 2014</i>	<i>Wednesday</i>	<i>7:00PM</i>	<i>Patacchia Room</i>
<i>Planning Commission</i>			
<i>January 8, 2014</i>	<i>Wednesday</i>	<i>7:00PM</i>	<i>Council Chambers</i>

Meetings may be added or changed.

City of Culver City, California
Planning Commission Agenda Item Report

Meeting Date: December 11, 2013		Item Number: PH-1	
AGENDA ITEM: Conditional Use Permit to allow a drive-through car wash as part of an existing Chevron gas station located at 11197 Washington Place.			
Contact Person/Dept.: Joshua Williams, Associate Planner		Phone Number: (310) 253-5706	
Public Hearing: ☒		Action Item: ☐ Attachments: ☒	
Public Notification: On November 19, 2013, a notice was mailed to all the property owners and occupants within a 500-foot radius of the site and emailed to the Master Notification List and the Tellefson Park Neighborhood Association.			
Planning Approval: Thomas Gorham, Planning Manager		Department Approval: Sol Blumenfeld, Community Development Director	

RECOMMENDATION:

That the Planning Commission:

1. Adopt a Mitigated Negative Declaration based on the Initial Study finding that the project will not have a significant adverse impact on the environment (Attachment No. 4).
2. Approve Conditional Use Permit, CUP P-2013090, subject to the Conditions of Approval as stated in Resolution No. 2013-P007 (Attachment No. 2).

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.

City of Culver City, California
Planning Commission Agenda Item Report

BACKGROUND:

Request

The subject Conditional Use Permit (CUP) application was submitted on June 18, 2013 by the applicant, Travis Companies (representing the property owner Ben Pouldar), requesting approval for the conversion of an existing building, presently occupied by a mini-mart and vehicle maintenance and repair service bays, into a drive-through car wash.

Existing Conditions

The project site is located at 11197 Washington Place and is currently developed with a Chevron gas station, which includes six fueling stations under a canopy structure, and a stand-alone building housing service bays for auto-maintenance and repair and a mini-mart. The site includes a trash enclosure along the northern property line close to Sepulveda Boulevard. The project site is comprised of four lots totaling approximately 20,891 square feet (0.48 acres) in area, and is located at the northeast corner of Sepulveda Boulevard and Washington Place (see Area Map - Attachment No. 1). The site is zoned Commercial General (CG).

The project site abuts a small commercial shopping strip center to the north, and a vehicle repair use to the west. In addition, the project is located across a 20-foot wide alley from single-family and multi-family residential uses on Piggott Drive, in the Residential Medium Density (RMD) zone. In the immediate vicinity, the project site is adjacent to a mix of commercial uses along Sepulveda Boulevard and Washington Place; including a vehicle repair business to the east across Sepulveda Boulevard; a vacant lot approved for a retail development located to the south across Washington Place; and a small restaurant, Cinco de Mayo, located at the southwest corner of Washington Place and Sepulveda Boulevard.

Project Description

The proposed project consists of the conversion of an existing building, housing a small mini-mart and service bays for vehicle repair, into a drive-through carwash. In addition, the project will include the construction of an approximate 2,500-square foot convenience store attached to the car wash. The convenience store is a permitted use and is not the subject of the CUP application. The existing gas station, with six fueling islands and canopy cover will remain. The applicant has requested hours of operation for the carwash between 7:00 AM to

City of Culver City, California
Planning Commission Agenda Item Report

9:00 PM daily. The project will provide a total of 17 on-site parking spaces, in excess of the 15 required by Code.

Project Improvements Recommended by Staff during the Preliminary Project Review Stage

The application was received after a Preliminary Plan Review meeting had been held and revisions to the site plan have been made to include changes suggested by Staff. These changes included refinement of the architectural design of the building, introducing more contemporary materials and façade treatment and consistent architectural detailing on all sides of the building that comports with newer developments on Sepulveda Boulevard and Washington Place, including the Tilden Terrace and the Culver Crossroads projects; and providing additional landscaping along the Washington Place street frontage and along the eastern perimeter of the site for screening purposes and to enhance the aesthetic appearance of the building.

Community Meetings/Public Notice

The applicant held two community meetings to provide information to the neighbors about the project and to receive feedback. The first meeting held at Tellefson Park on August 27, 2013 was attended by four neighbors, including a Planning Commissioner. Issues discussed included the hours of operation of the car wash, and the size of the convenience store. In response to concerns about the location of the meeting by the attendees a second community meeting was held on October 1st, 2013 in the meeting room of the Vintage Faith Church. Three neighbors, including a Planning Commissioner were in attendance. Issues discussed included the hours of operation of the car wash and the proposed revision to the building's architecture.

In response to concerns expressed by neighbors at the community meetings regarding the hours of operation of the car wash, expressly that the hours be reduced to 7:00 AM to 7:00 PM, Staff concurs with the reduced operating hours.

On November 19, 2013 a notice was sent to property owners and occupants within 500 feet of the project site, stating that an application had been received and soliciting input from the community. Notice was also provided to the Tellefson Park Neighborhood Association. No comments were received.

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Planning Commission Agenda Item Report

ANALYSIS:

Site Plan and Architectural Design

The Project has been designed to conform to all applicable provisions of the Commercial General (CG) Zone, and all other applicable City development standards. The Applicant has worked closely with staff to include contemporary design elements, including clean lines, a flat roof, and muted colors that comport with new structures in the vicinity, including the Culver Crossroads commercial center at Sepulveda Boulevard and Culver Boulevard, and Tilden Terrace, located to the east of the site on Washington Boulevard. The project will also use a variety of materials including composite panels, metals, and mesh screening. The 20-foot high, one-story tall building is below the 56-foot height limit permitted by the Zoning Code.

Staff also worked with the Applicant to review potential variations on the site layout. The proposed site plan will limit traffic impacts on surrounding residential streets by requiring egress onto Washington Place from the car wash exit. Other on-site improvements include new landscaping along Washington Place where the building meets the street, around the perimeter of the building facing the fueling area and along the perimeter wall to the east.

The Project is located across a 20-foot wide alley from single-family and multi-family residential uses on Piggott Drive, in the Residential Medium Density (RMD) zone. As a condition of approval and mitigation measure a proposed 6' 0" high wall is required along the rear property line abutting the alley, where vehicles exit the car wash structure will be increased to 10 feet in height.

Entry to the car wash will be from the Sepulveda Boulevard side of the property, adjacent to the fueling stations. The queuing area for the car wash will be defined by an extended landscape island on the north side of the carwash entry as well as striping and directional arrows on the pavement and directional signage. Review of the queuing plan will be subject to Planning Manager approval prior to building permit issuance. In addition, a condition of approval has been included to review the project after 6 months and one year after occupancy to evaluate the on-site circulation and operation of the car wash.

Parking

A total of 17 parking spaces are provided on-site to serve the gas station/convenience store use and the drive-through car wash, in excess of the 15 parking spaces required pursuant to the Zoning Code. One van-accessible handicap parking stall is included in the parking total.

City of Culver City, California
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The Zoning Code requires one parking stall per 225 square feet of the gas station's convenience store component for 11 parking spaces. Six parking spaces are provided at the fueling stations (pursuant to Section 17.320.020.H.2, Table 3-3B, half of the spaces provided at the 12 on-site fueling stations are counted toward the total required parking), and six spaces will be provided in front of the convenience store. For the carwash component, four parking spaces are required plus a queuing area for three vehicles ahead of the car wash entry. Five spaces will be provided to the rear of the convenience store for the carwash component. These spaces will provide vacuum machines for the vehicles that exit the car wash. A condition has been added that require all vacuum machines to be located below grade to reduce noise impacts to adjacent uses.

Use	Required	Provided
Gas Station/ Convenience Store (2,500 sq. ft.)	11 spaces	12 spaces, total; 6 spaces (half of the parking provided at the 12 fueling stations). 6 spaces provided in front of the convenience store, including one handicap accessible space.
Drive-Through Car Wash	4 spaces	5 spaces provided at the rear of the convenience store, equipped with self-service vacuums.

Landscaping & Landscaped Setback

The project will include new landscaping around the perimeter of the new convenience store building and along the perimeter of the property, adjacent to the wall on the eastern property line. The convenience store will be set back approximately 7' 9" from the property line adjacent to Washington Place. This area will be landscaped with shrubs and flowering plants and trees. Adjacent to the perimeter wall, a 5' 0" wide planter area will accommodate new shrubs, four new queen palms and one Mediterranean fan palm. A second fan palm will be provided in the planter island at the exit of the car wash. Approximately 8.88% of the total site area will be provided as landscape area.

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Noise

A Noise Study was provided by the Applicant at the request of the Planning Division, in order to determine potential impacts on adjacent properties, specifically the residential dwellings located to the north of the project site across the 20-foot alley to the rear of the property. The study prepared by Colia Acoustical Consultants, dated June 12, 2013 (see Attachment No. 5), identified existing noise measurements at two locations at the alley adjacent to the proposed entrance and exit of the drive-through car wash. Based on noise measurements it was identified that the majority of noise is generated from the surrounding street system and the 405 Freeway. Existing conditions from traffic noise are in excess of the 65 dBA CNEL Standard identified in the City's General Plan Noise Element. During the operation of the car wash, the primary source of noise will be generated at the conclusion of the operation, during the "dry cycle." The report identifies that at 180 degrees from the car wash exit, and within 10 feet, the dryer noise is measured to be 86 dBA. In order to reduce impacts related to noise from the dryer operation on the adjacent residential properties to the north, the noise study has recommended a 6-foot high wall which will act as acoustical shielding and, according to the Noise Study, will reduce the noise impacts to acceptable levels (59.5 dB CNEL directly north of the site and 62.8 dB CNEL to the northwest). To further mitigate potential impacts, Planning Staff has recommended a ten foot high wall in lieu of the 6 foot high wall. Based on previous experience with noise mitigations for car washes, the increased height will serve to provide additional acoustical shielding and provide further separation between the car wash operation and the adjacent residences. In addition, staff has recommended locating the vacuum machines below grade for noise mitigation.

Traffic and Circulation

Access to the property is provided through three existing two-way (entry and exit) driveways on Sepulveda Boulevard and Washington Place. The car wash entry is located at the rear of the property adjacent to the 20 foot alley. Queuing into the car wash would be parallel to the alley, within a 10-foot wide lane adjacent to the northernmost fueling islands. Upon exit, a one-way drive aisle leads to five parking spaces at the rear of the convenience store equipped with self-service vacuums and to a new exit onto Washington Place. The car wash exit onto Washington Place will be signed by both a directional arrow on the ground and a "no entry" sign to prevent car movements into the driveway.

A traffic and circulation study prepared for the proposed project, dated July 2013, by Kimley Horn and Associates, was reviewed and accepted by the City's Traffic Engineer (Attachment No. 6). The traffic study evaluated the forecasted

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Planning Commission Agenda Item Report

completion date of the project (year 2014) conditions at five intersections (Sepulveda Boulevard and Interstate 405 northbound ramps; Sepulveda Boulevard at Washington Place; Sepulveda Boulevard at Washington Boulevard; Sawtelle Boulevard at Washington Place; and Washington Boulevard at Washington Place) in the immediate vicinity during both the AM and PM peak hours. The traffic analysis estimated that the project, a drive-through car wash with a 24-hour convenience store, would generate 957 net new daily vehicle trips, including 88 net vehicles in/out (44/44) trips per hour during the AM peak hour, and 68 total vehicles in/out (35/33) per hour during the PM peak hour. The traffic study found that at the five studied intersection, no impact will result from the drive-through car wash and convenience store operation.

CONCLUSION:

Staff has worked closely with the applicant to refine the site plan and architectural design in order to address on-site circulation for vehicles and pedestrians, to enhance onsite landscaping, and create an aesthetically attractive building façade. Based upon the above findings outline in the Draft Resolution No. 2013-P007. and pursuant to CCMC Chapter 17.530 requirements, staff believes that the Conditional Use Permit for the drive-through car wash can be supported and recommends approval.

ENVIRONMENTAL DETERMINATION:

Pursuant to the California Environmental Quality Act (CEQA) guidelines, a Mitigated Negative Declaration (MND) (Attachment No. 4) has been prepared; the project has been determined to have less than significant impacts on the environment with mitigations.

ALTERNATIVE OPTIONS:

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

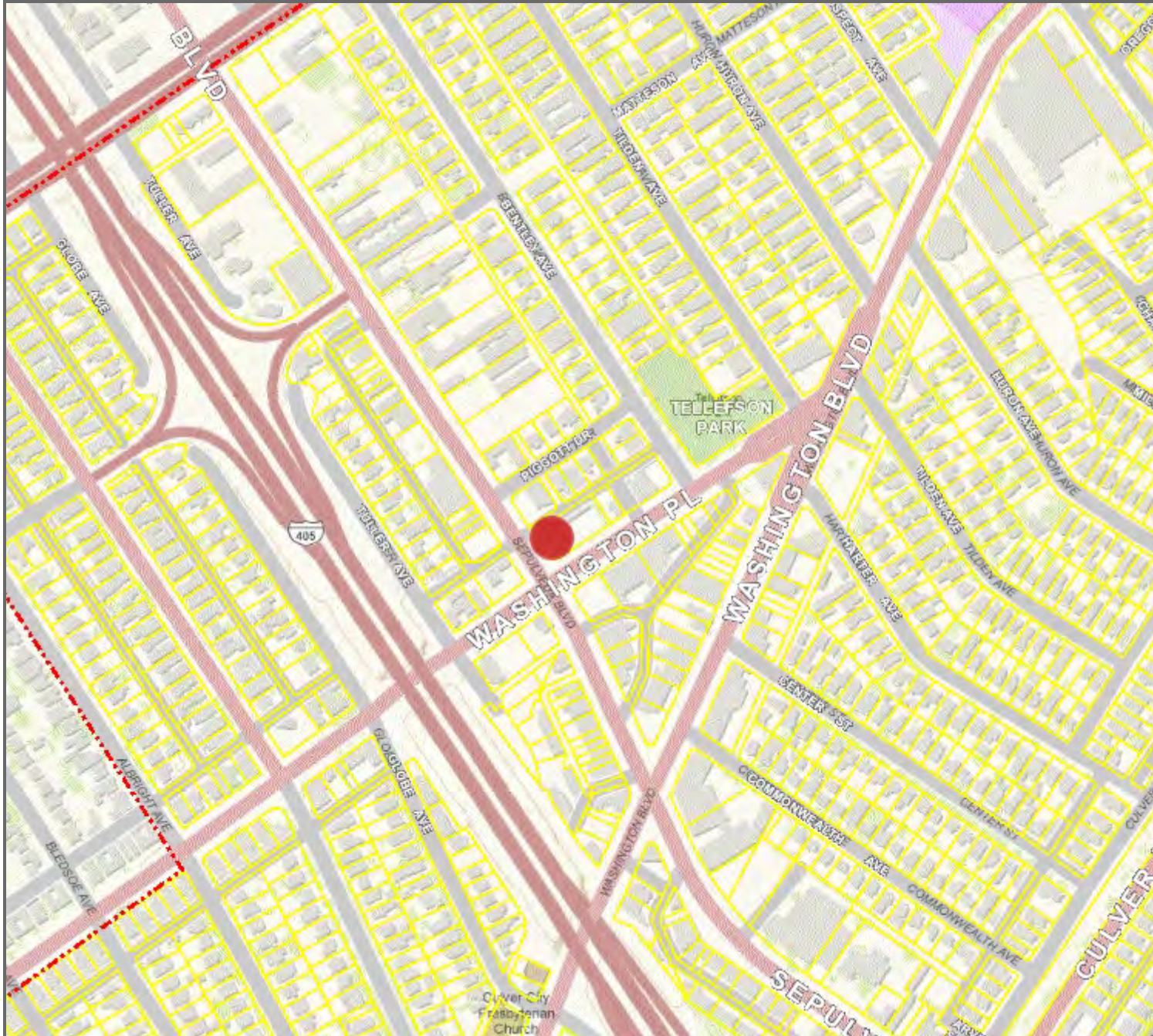
1. Approve the application with the recommended conditions of approval if the application is deemed to meet the required findings.
2. Approve the application with additional or different conditions of approval, if deemed necessary to meet the required findings and mitigate any new project impacts identified at the meeting.
3. Disapprove the application if it does not meet the required findings.

City of Culver City, California
Planning Commission Agenda Item Report

ATTACHMENTS:

1. Area Map
2. Draft Resolution No. 2013-P007 and Conditions of Approval, Exhibit A
3. Development Plans, stamped received June 18, 2013
4. Mitigated Negative Declaration
5. Acoustical Analysis of the Proposed New Service Station Car Wash at 11197 Washington Place, prepared by Colia Acoustical Consultants, dated June 12, 2013.
6. Traffic Impact Analysis for the Proposed Chevron Service Station Project in the City of Culver City, prepared by Kimley-Horn and Associates, dated July 2013.

Attachment No. 1
CUP for Drive Through Car Wash
11197 Washington Place



Source: Planning Division

Map Created: 12/04/2013

Meeting Date: 12/11/2013



**THE CITY OF
CULVER CITY**



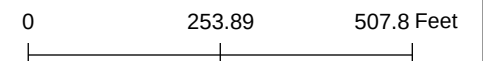
INFORMATION TECHNOLOGY DEPARTMENT

GEOGRAPHIC INFORMATION SYSTEMS

9770 CULVER BLVD
CULVER CITY, CA 90232

TEL: 310-253-5976

Scale: 1:6,093



1 RESOLUTION NO. 2013-P007

2 A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF
3 CULVER CITY, CALIFORNIA, APPROVING CONDITIONAL USE PERMIT,
4 CUP P-2013090, FOR A DRIVE-THROUGH CAR WASH AS PART OF A
5 VEHICLE FUELING STATION AND CONVENIENCE STORE AT 11197
WASHINGTON PLACE IN THE COMMERCIAL GENERAL (CG) ZONE.

6 (Conditional Use Permit, CUP P-2013090)

7
8 WHEREAS, on June 18, 2013, Travis Companies (the "Applicant") filed an application
9 on behalf of Ben Pouldar (the "Owner") for a Conditional Use Permit to construct a drive-
10 through car wash as part of a vehicle fueling station and convenience store (the "Project").
11 The Project site is described more fully as Lots 37, 38, 39 and 40 of Tract No. 10356 in the
12 City of Culver City, County of Los Angeles, State of California; and,
13

14 WHEREAS, in order to implement the car wash component of the Project, approval of
15 the following application is required:

16 Conditional Use Permit, P-2009098: To establish a car wash use and to ensure the
17 Project complies with all required standards and City ordinances and establish all onsite and
18 offsite conditions of approval to reflect the site features and compatibility of the proposed
19 Project with the uses on adjoining properties; and,
20

21 WHEREAS, on December 11, 2013, after conducting a duly noticed public hearing on
22 the subject application, including full consideration of the application, plans, staff report,
23 environmental information and all testimony presented, the Planning Commission (i) by a
24 vote of _ **to** _, adopted a Mitigated Negative Declaration, in accordance with the California
25 Environmental Quality Act (CEQA), finding the Project will not result in significant adverse
26 environmental impacts; and (ii) by a vote of _ **to** _ conditionally approved Conditional Use
27 Permit, CUP P-2013090.
28
29

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

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

5
6 **Conditional Use Permit:**

7 As outlined in CCMC Section 17.530.020, required findings for a Conditional Use Permit, the
8 following findings are hereby made:

- 9 **1. The proposed use is allowed within the subject zoning district with the approval**
10 **of an Administrative Use Permit or Conditional Use Permit and complies with all**
11 **other applicable provisions of this Title and the CCMC.**

12 Pursuant to Zoning Code Section 17.220.015 – Table 2-5, Allowed Uses and Permit
13 Requirements for Commercial Zoning Districts, the CG Zone permits car wash
14 facilities with the approval of a Conditional Use Permit. The car wash operation will
15 comply with all applicable provisions of the Zoning Code. The convenience store
component of the Project is a permitted use in the CG Zone, and is not subject to the
findings of the Conditional Use Permit.

- 16 **2. The proposed use is consistent with the General Plan and any applicable**
17 **Specific Plan.**

18 The proposed use, a drive-through car wash, will be an added service and
19 convenience to the community and is consistent with the Commercial General
20 designation which allows for a range of small-to-medium scale commercial uses, with
21 an emphasis on community-serving retail to which patrons often travel by car. The use
will be consistent with the General Plan goal of encouraging high trip-generating uses
near transportation corridors. There is no Specific Plan designated for this area.

- 22 **3. The design, location, size, and operating characteristics of the proposed use are**
23 **compatible with the existing and future land uses in the vicinity of the subject**
24 **site.**

25 The Project site is located at the northeast intersection of Sepulveda Boulevard and
26 Washington Place and is developed with a Chevron fueling station and convenience
27 store. The car wash component is a complementary use to the existing auto-oriented
28 uses on-site and within the immediate vicinity. The Project proposes improvements to
29 the site including new landscaping and the conversion of the existing building housing
auto-repair service bays and a small mini-mart into a drive-through car wash. The
circulation and queuing are designed to occur completely on-site and not impact any

adjacent land uses. Potential noise impacts will be mitigated through the inclusion of a new 10-foot high wall along the rear property line where vehicles exit the car wash. The architectural design of the car wash and the adjoining convenience store will reflect modern design elements, including materials, found in other new projects within the area, including the Culver Crossroads project and Tilden Terrace. Project conditions of approval will further ensure compatibility with the neighborhood and future land uses in the vicinity of the subject site.

4. The subject site is physically suitable for the type and intensity of use being proposed, including access, compatibility with adjoining land uses, shape, size, provision of utilities, and the absence of physical constraints.

The Project site provides adequate onsite circulation, parking, queuing areas, setbacks and landscaping and meets all zoning code requirements. The location of the site, at the corner of Sepulveda Boulevard and Washington Place provides adequate access via three existing two-way driveways and a new egress only driveway for the car wash exiting onto Washington Place. The Project is compatible with surrounding commercial uses, which includes a small multi-tenant commercial center to the north and an auto-repair use to the east. Residential uses to the northwest of the site will be protected from noise impacts through the maintenance of an existing 18-foot high building wall along the rear property line and the inclusion of a new 10-foot high concrete block wall where vehicles exit the car wash. The Project site is physically suitable for the proposed use subject to compliance with the conditions of approval contained herein.

5. The establishment, maintenance or operation of the proposed use will not be detrimental to the public interest, health, safety, or general welfare, or injurious to persons, property, or improvements in the vicinity and zoning district in which the property is located.

The drive-through car wash will provide a service to residential and commercial patrons in the immediate vicinity. Based on review of the Project plans, noise study, and traffic and circulation study, the car wash is not anticipated to result in any significant impacts on surrounding uses. The conditions of approval and compliance with all CCMC requirements will ensure that the proposed operation will not be detrimental to the public interest, health, safety, or general welfare, or injurious to persons, property, or improvements in the vicinity and zoning district in which the property is located.

SECTION 2. Pursuant to the foregoing recitations and findings, the Planning Commission of the City of Culver City, California, hereby approves Conditional Use Permit, CUP P-2013090, subject to the conditions of approval set forth in Exhibit A attached hereto and incorporated herein by this reference.

1 APPROVED and ADOPTED this 11th day of December, 2013.

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5 _____
6 SCOTT WYANT - CHAIRPERSON
7 PLANNING COMMISSION
8 CITY OF CULVER CITY, CALIFORNIA

9 Attested by:

10 _____
11 Yvonne Hunt
12 Administrative Secretary
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EXHIBIT A
RESOLUTION NO. 2013-P007
Case No. CUP P-2013090
11197 Washington Place

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
GENERAL				
1.	These Conditions of Approval are being imposed on a drive-through car wash at an existing fueling station (the "Project"), for the property located at 11197 Washington Place (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 one year 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	
5.	The Project shall be developed pursuant to CCMC Chapter 17.300 – "General Property Development and Use Standards".	Planning	Standard	

EXHIBIT A
RESOLUTION NO. 2013-P007
Case No. CUP P-2013090
11197 Washington Place

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
GENERAL				
6.	All planted areas on the Property shall be landscaped and irrigated pursuant to CCMC Chapter 17.310 - "Landscaping".	Planning	Standard	
7.	All parking areas on the Property shall be developed pursuant to CCMC Chapter 17.320 - "Off-Street Parking and Loading".	Planning	Standard	
8.	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	
9.	All permits and licenses required in connection with the development or use of the Project shall be applied for and obtained separately.	All	Standard	
10.	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	
11.	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	

EXHIBIT A
 RESOLUTION NO. 2013-P007
 Case No. CUP P-2013090
 11197 Washington Place

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
GENERAL				
12.	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	
13.	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	
14.	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	

EXHIBIT A
RESOLUTION NO. 2013-P007
Case No. CUP P-2013090
11197 Washington Place

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
GENERAL				
15.	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	
16.	Any new utilities shall be placed underground or enclosed within the building construction; no new overhead utilities shall be permitted.	Building/ Planning	Standard	
17.	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	
18.	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	
19.	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	
20.	A concrete block wall adjacent to the property line along the north side of the subject property, where vehicles exit from the car wash, shall have a minimum height of 10 feet. All perimeter block walls shall be of similar design and color to the primary structure and shall be approved by the Planning Division prior to installation.	Planning	Special	
21.	All exterior walls on or within 5 feet of property lines shall be a minimum 2 hour rated concrete block construction; and rated openings.	Building	Special	

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Case No. CUP P-2013090
11197 Washington Place

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
GENERAL				
22.	All exterior parapets shall have solid top construction to support a 300 lb. point load. Foam blocking is prohibited and only metal stud blocking shall be used.	Building	Special	
23.	The car wash area shall be 2 hour separated from the storage room/ utility room/ sales room.	Building	Special	
24.	The car wash building shall be structurally upgraded to the current California Building Code.	Building	Special	

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11197 Washington Place

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
PRIOR TO BUILDING PERMIT ISSUANCE				
25.	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	
26.	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	
27.	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. The project shall provide additional landscaping along the Washington Place building façade, including a minimum of three (3) queen palms or fan palms, of similar size to those proposed along the eastside of the property.	Planning /Parks & Rec.	Special	

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 11197 Washington Place

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
PRIOR TO BUILDING PERMIT ISSUANCE				
28.	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	
29.	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	
30.	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	

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NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
PRIOR TO BUILDING PERMIT ISSUANCE				
31.	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	

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NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
PRIOR TO BUILDING PERMIT ISSUANCE				
32.	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	
33.	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	
34.	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	

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NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
PRIOR TO BUILDING PERMIT ISSUANCE				
35.	A queuing plan for the drive-through car wash showing the location and design of the payment kiosk, and the method for managing the queuing path-of-travel for vehicles, including but not limited to striping or curbing, shall be reviewed and approved by the Planning Manager prior to issuance of the building permit.	Planning	Special	
36.	The vacuum cleaner devices shall be located below grade to mitigate noise impacts to adjacent uses. Detailed plans for the installation of the vacuum cleaners shall be submitted to the Planning Manager for review and approval prior to Building Permit issuance.	Planning	Special	
37.	Four (4) sets of Site Improvement Plans prepared by a civil engineer registered in the State of California shall be submitted to the Engineering Division for review, approval, and permitting. The Plans shall include, but not be limited to, detailed drainage and grading of the site indicated by topographical lines and spot elevations. Show all existing and proposed drive approach(es), driveway(s), sidewalk, curb, gutter, indicate all proposed and existing utilities (sanitary sewer, water, etc.), and fully dimensioned plans to include up to the centerline of Washington Place and Sepulveda Boulevard.	Public Works	Special	
38.	Provide an existing site topographic survey map prepared by licensed land surveyor in the State of California. This survey shall include existing property lines, existing utilities and meters, existing structures, street trees, all above ground facilities within the public parkway, include existing development within 50 feet of project site, etc.	Public Works	Special	

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NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
PRIOR TO BUILDING PERMIT ISSUANCE				
39.	Concurrent with the submittal of the site improvement plan, a Local Storm Water Pollution Prevention Plan (LSWPPP) and Standard Urban Storm Water Mitigation Plan (SUSMP) shall be submitted for review and approval by the City Engineer as outlined in CCMC Chapter 5.05. The LSWPPP and SUSMP shall be developed and implemented in accordance with the requirements of the Los Angeles County Municipal Stormwater NPDES Permit No. CAS000002 (Order No. 2009-00009-DWQ). The LSWPPP shall include Best Management Practices (BMPs) that effectively prohibit the entry of pollutants from the construction site into the public street or storm drain system. The SUSMP shall provide BMPs that adequately address the pollutants generated during the post-construction stage for the first ¾" of a rain event. The site improvement plans shall note that the contractor shall comply with the "California Stormwater Best Management Practice Handbooks". Prior to the start of design of these plans and of necessary reports, the applicant's civil engineer shall meet with the City's Stormwater Program Manager to obtain information on the City-specific SUSMP and LSWPPP requirements.	Public Works	Special	

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NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
PRIOR TO BUILDING PERMIT ISSUANCE				
40.	Upon completion of the rough grading and prior to the issuance of a building permit the following reports and drawings and any supplements thereto shall be submitted to the City Engineer: a. An as-built grading plan prepared by the civil engineer. b. A certification by the civil engineer that the grading has been completed in conformance with the approved plan and California Building Code Appendix Chapter 33 and with this certification, a survey showing the final rough pad grade elevations shall be submitted. c. A certification by the soils engineer that the grading has been completed to his satisfaction and is in compliance with the California Building Code Chapter 33. d. A final compaction report prepared by the soils engineer.	Public Works	Special	
41.	The construction contractor shall advise the Culver City Public Works Inspector of the construction schedule and shall meet with the inspector prior to commencement of work.	Public Works	Special	
42.	Fire sprinklers shall be provided as required by the CCFD and installed per 2010 NFPA 13 for this facility. Minimum density shall be Ordinary Hazard Group 1.	Fire	Special	
43.	An updated hazardous material disclosure plan for this facility shall be provided.	Fire	Special	
44.	When fire sprinkler head quantity is 20 or more heads, a fire sprinkler monitoring system is required per 2010 CA Fire Code and shall be installed per 2010 NFPA 72	Fire	Special	
45.	The emergency pump shut off switch and signage shall be relocated and installed as approved by the CCFD.	Fire	Special	

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DURING CONSTRUCTION				
46.	The contractor shall schedule a condition of approval coordination meeting to include Building Safety and Planning staff and the contractor's field superintendent, prior to the start of construction.	Building	Special	
47.	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	
48.	The Property shall be maintained daily so that it is free of trash and litter.	Building	Standard	
49.	During construction, dust shall be controlled by regular watering or other methods as determined by the Building inspector.	Building	Standard	
50.	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	
51.	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	
52.	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	

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DURING CONSTRUCTION				
53.	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	
54.	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	
55.	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	

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DURING CONSTRUCTION				
56.	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	

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DURING CONSTRUCTION				
57.	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	
58.	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	
59.	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	
60.	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	
61.	An address viewable and legible from the public way shall be provided prior to final inspection.	Fire	Special	

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NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
PRIOR TO CERTIFICATE OF OCCUPANCY OR FINAL INSPECTION				
62.	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 on September 19, 2013 at the Project Review Committee meeting 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	
63.	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	
64.	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	

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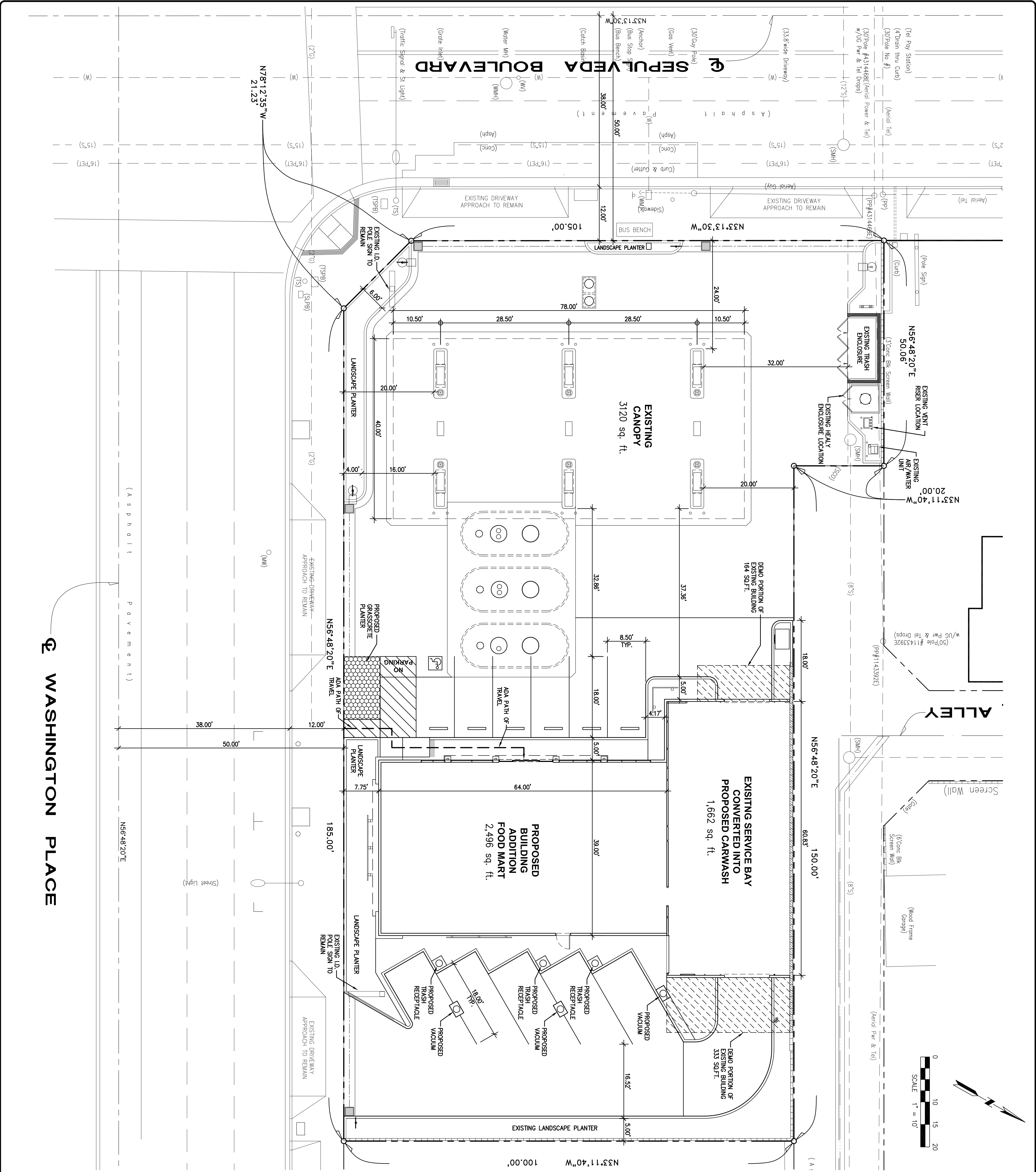
NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
PRIOR TO CERTIFICATE OF OCCUPANCY OR FINAL INSPECTION				
65.	After the construction of the SUSMP-related BMPs, the applicant shall submit to the City Storm Water Program Manager a completed Storm Water Observation Report Form (stamped and signed by the project civil engineer or architect responsible for the SUSMP design) to certify, based on his or her observations, that all SUSMP-related BMPs have been constructed per the specifications and the drawings.	Public Works	Special	
66.	The applicant shall submit to the City Storm Water Program Manager a notarized Master Covenant and Agreement (regarding on-site BMP maintenance) to be recorded by the County Recorder of Los Angeles County. Prior to getting the Agreement notarized, the applicant's civil engineer shall contact the City's Storm Water Program Manager for review of the Agreement and for information on other requirements associated with the recording process.	Public Works	Special	
67.	A KNOX box shall be provided and upon completion have a minimum two sets of keys for all doors interior and exterior.	Fire	Special	
68.	All exterior doors shall have keyways and handles	Fire	Special	
69.	The Fire Department Connection (FDC) and the Double Detector Check Assembly (DDCA) locations shall meet the requirements of Golden State Water Company, CCFD and be screened to the satisfaction of the Planning Manager.	Fire/ Planning	Special	

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NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
ON-GOING				
70.	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 December 11, 2013 , excepted as modified by these Conditions of Approval.	Planning	Standard	
71.	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	
72.	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	

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ON-GOING				
73.	All graffiti shall be removed from the Property within 48 hours of its application.	Building/ Planning/ Public Works	Standard	
74.	The Property Owner shall maintain all street trees along the property frontage at his/her sole cost and expense.	Public Works	Standard	
75.	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	
76.	Pursuant to Zoning Code Chapter 17.660, the Land Use Permit may be revoked or modified if the conditions of approval herein are not complied with or if there are adverse impacts to the surrounding community or nuisances result from this approval. Prior to any such revocation, timely notice and response opportunities shall be given to the property owner.	Planning	Standard	
77.	The car wash's hours of operation shall be limited to between the hours of 7 AM and 7 PM, daily.	Planning	Special	
78.	Follow-up Operations Inspections - Inspections of the on-site circulation and car wash operations shall be conducted by the Planning Manager at 6-month and 12-month, periods after full operation of the Project. Thereafter, follow-up inspections shall be conducted as necessary by the City.	Planning	Special	



VICINITY MAP

1. APPLICABLE CODES:

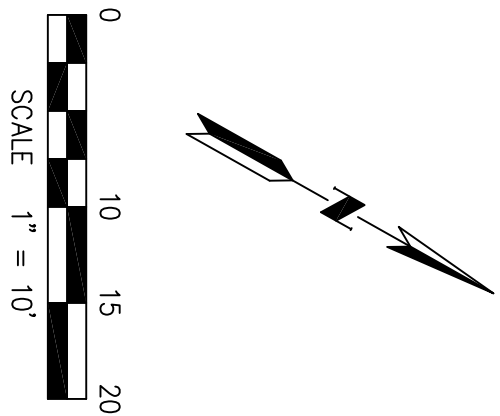
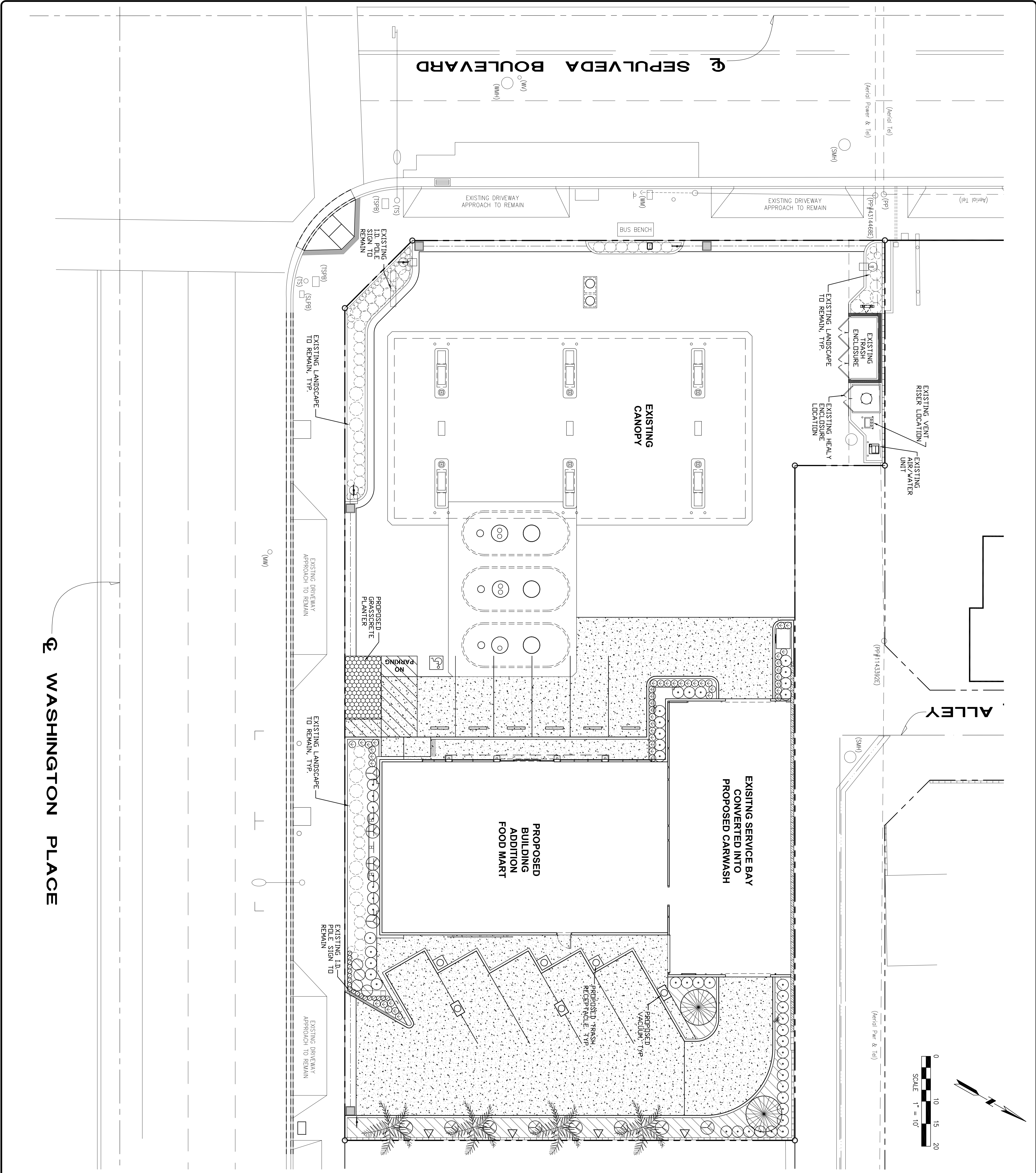
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Plumbing Code:	2010 California Plumbing Code
Electrical Code:	2010 California Electrical Code
Mechanical Code:	2010 California Mechanical Code
Energy Code:	2010 California Energy Code
Fire Code:	2010 California Fire Code
Accessibility Code:	2010 Title 24 Accessibility Regs.
Green Code:	2010 California Green Code

CODE INFORMATION

CODE DATA INFORMATION	EXISTING	PROPOSED	EXISTING
Occupancy Group:	M	M	B
Type of Construction:	I/II	V/N	I/II
Sprinklers:	No	No	No
Stories:	1	1	1
Maximum Height:	20'-0"	20'-0"	20'-0"

SITE SUMMARY

PROJECT NAME:	Chevron Service Station 9-2894
PROJECT ADDRESS:	11197 Washington Place
PARCEL NUMBER:	4213-017-003 Tract No.: 103561 Lot No.: 37.38, 39 and 40
PROPERTY AREA:	20,891 S.F.
REDEVELOPED AREA:	10,548 S.F.
BUILDING AREA:	1,662 S.F.
SERV. BAY/CAR WASH MART	2,496 S.F.
CANOPY (Existing):	3,120 S.F.
TOTAL AREA:	7,278 S.F.
TRASH ENCLOSURE AREA:	114 S.F.
LANDSCAPE AREA: (Total)	1,856 S.F.
COVERAGE:	0.95 %
COVERAGE:	11.95 %
COVERAGE:	14.93 %
TOTAL COVERAGE:	34.84 %
COVERAGE:	8.86 %



PROPOSED PLANT LEGEND

SYMBOLS	BOTANICAL NAME	QTY.	CONTAINER SIZE
	COMMON NAME		MATURE W X H
	TREES:		
	CHAMAREAOPS HUMILIS	2	24" BOX
	MEDITERRANEAN FAN PALM		8'X8' MULTI-TRUNK
	SYAGRUS ROMANZOFFIANUM	4	12' BTX
	QUEEN PALM		12'X50'
	SHRUBS:		
	EUCALYPTUS J. MICROPHYLLA	18	1 GALLON
	DWARF EVERGREEN EUCALYPTUS		12"x18"
	HEMEROCALLIS 'RED'	45	1 GALLON
	RED DAYLILY		18"x2'
	POINCIANA T. MAORI CHIEF	12	15 GALLON
	NEW ZEALAND FLAX		3"x3'
	LIGUSTRUM 'TEXANUM'	47	5 GALLON
	TEXAS PRIVET		30'X36"
	ROSA F. 'ICEBERG'	4	5 GALLON
	WHITE FLORIBUNDA ROSE		30'X36"
	VINES:		
	DISTICTUS BUCCNATORIA	4	15 GALLON
	BLOOD-RED TRUMPET VINE		ATTACH TO WALL
	GROUNDCOVER:		
	TRACHELOSPERMUM JASMINOIDES		1 GALLON @ 18" O.C.
	STAR JASMINE		

PLANTING AREAS SHALL BE MULCHED WITH A TWO INCH (2") MINIMUM LAYER OF ORGANIC WOOD MULCH. AREAS OF GROUNDCOVER PLANTED FROM FLATS SHALL BE MULCHED WITH A ONE AND ONE HALF INCH (1 1/2") MINIMUM LAYER OF ORGANIC WOOD MULCH.

TOTAL EXIST. LANDSCAPE AREA IS 609 SQ. FT.
TOTAL NEW LANDSCAPE AREA IS 1090 SQ. FT.
TOTAL SITE LANDSCAPE AREA IS 1699 SQ. FT.

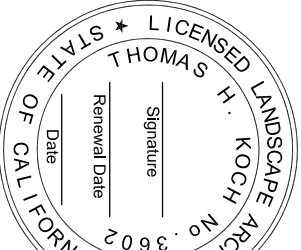
DRAWN BY: A.J.
DATE: 2-7-13
SCALE: 1"=10'-0"
PLOT: 1-1
REF: CC-PH2-L1.0
FILE: 0142-0001

NOTICE
This drawing and all information therein is the property of Thomas H. Koch, Inc., and shall not be copied or used except for the purpose for which it is expressly furnished. The drawing and any copies thereof, partial or complete shall be returned to the owner upon demand.

PREPARED FOR:
WASHSEP, INC.
CULVER CITY CHEVRON
11197 WASHINGTON PLACE
CULVER CITY, CA. 90232
TEL: (310) 641-7707
FAX: (310) 641-7704

PREPARED BY:
THOMAS H. KOCH
LANDSCAPE ARCHITECT
CA License 3602
AZ Registration 33915
26482 Elmcrest Way
Lake Forest, CA 92530
(949) 348-9150
thk@cox.net

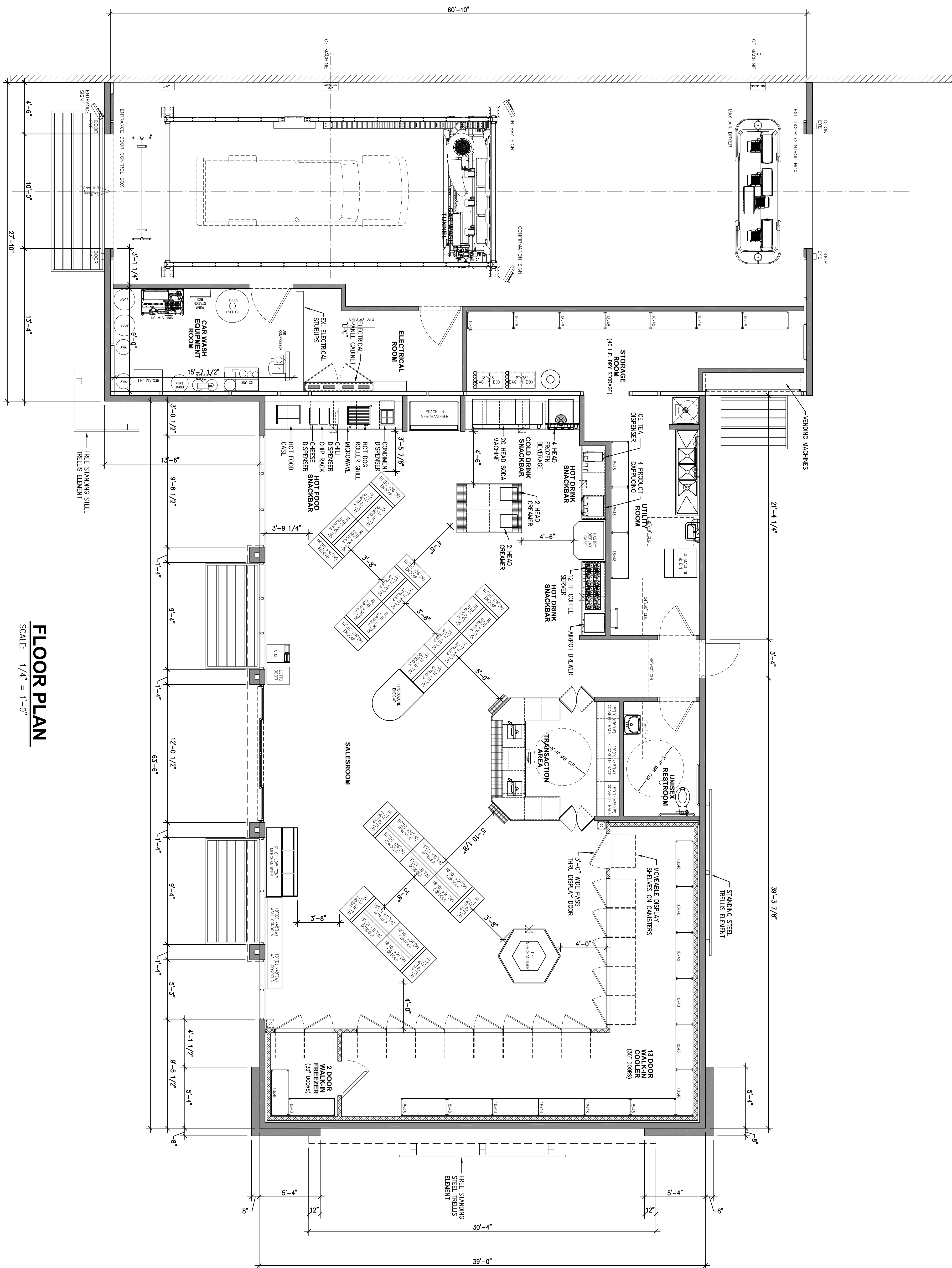
NO.	REVISION	DATE



LANDSCAPE PLAN
CHEVRON SERVICE STATION 9-2894
11197 WASHINGTON PLACE
CULVER CITY, CA 90232

DRAWING NUMBER
L1.0

11/27/2013



CONCEPTUAL FLOOR PLAN
CHEVRON SERVICE STATION 9-2894
11197 WASHINGTON PLACE
CULVER CITY, CA 90232

DRAWING NUMBER

[illegible]**Travis Companies, Inc.**

PREPARED FOR:

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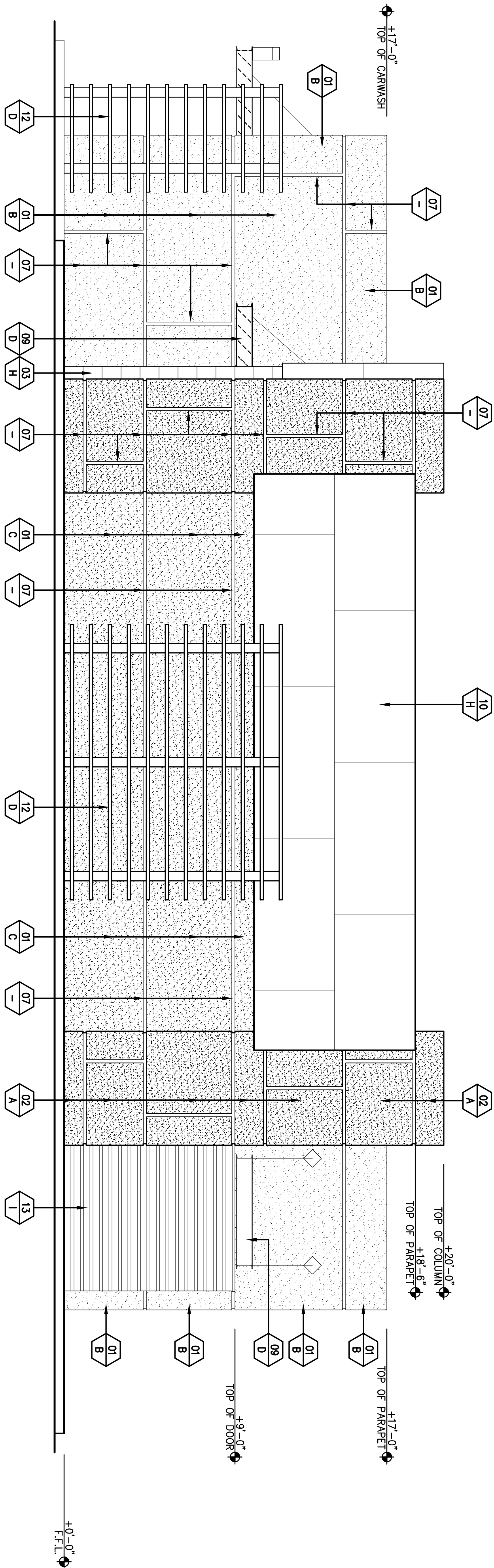
DRAWN BY: A.C.
DATE: 2-1-1
SCALE: 1/4" = 1'-0"
PLOT: 1-
REF: CC-PH2-A1
FILE: 0147-000

EXTERIOR FINISH SCHEDULE

01 MATERIAL / FINISH
A COLOR

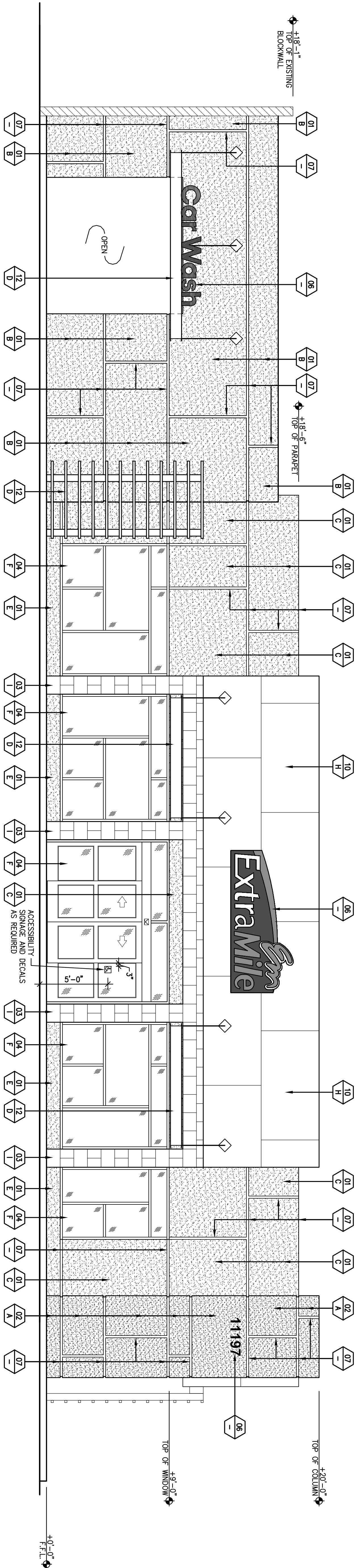
MATERIAL / FINISH:

- 01 7/8" EXTERIOR CEMENT PLASTER (3 COATS) OVER SELF-FLUERING DIAMOND MESH OVER 2 LAYERS GRADE "D" BUILDING PAPER FINISH: 20/30 FINE SAND FINISH
- 02 7/8" EXTERIOR CEMENT PLASTER (3 COATS) OVER SELF-FLUERING DIAMOND MESH OVER 2 LAYERS GRADE "D" BUILDING PAPER FINISH: 30/30 SMOOTH SAND FINISH
- 03 7/8" EXTERIOR CEMENT PLASTER (3 COATS) OVER SELF-FLUERING DIAMOND MESH OVER 2 LAYERS GRADE "D" BUILDING PAPER FINISH: "WET" GROOVED PLASTER
- 04 ALUMINUM STOREFRONT SYSTEM
- 05 METAL FLASHING
- 06 INTERNALLY ILLUMINATED I.D. SIGN (NOT PART OF THIS PERMIT)
- 07 2" PLASTER REVEAL
- 08 1/2" PLASTER REVEAL
- 09 STEEL AWNING
- 10 ACM COMPOSITE SYSTEM PANEL
- 11 12" HIGH BUILDING ADDRESS NUMBERS
- 12 METAL TRELLIS
- 13 METAL ROLL-UP DOOR
- 14 CRIMPED ALUMINUM MESH SCREEN
- COLOR:
- A SHERWIN WILLIAMS: #SW6048 - "TERRA BROWN"
- B SHERWIN WILLIAMS: #SW6145 - "HATCH BROWN"
- C SHERWIN WILLIAMS: #S1142 - "MACADAMIA"
- D SHERWIN WILLIAMS: #SW6994 - "GREENBLACK"
- E SHERWIN WILLIAMS: #SW6006 - "BLACK BEAN"
- F ALUMINUM STORE FRONT MANUFACTURER: ASCADIA, INC. - TEL: (323) 269-7300 MODEL NO: A2451 COLOR: CLEAR ANODIZED FINISH
- G COLOR / FINISH TO MATCH ADJACENT SURFACE
- H ALPOLIC: #AWM10R - "CLEAR ANODIZED"
- I SMOOTH CEMENT FINISH - NATURAL GRAY COLOR
- J MANUFACTURER: OVERHEAD DOORS, CORP. MODEL NO: 610 SERIES COLOR: POWERGLARD WEATHERED FINISH - "PLATINUM"



SOUTH ELEVATION

1 SCALE: 1/4" = 1'-0"



WEST ELEVATION

2 SCALE: 1/4" = 1'-0"

BUILDING ELEVATIONS
CHEVRON SERVICE STATION 9-2894
11197 WASHINGTON PLACE
CULVER CITY, CA 90232

A2.0

DRAWING NUMBER

WASHSEP, INC.
CULVER CITY CHEVRON
11197 WASHINGTON PLACE
CULVER CITY, CA. 90232
TEL: (310) 641-7702
FAX: (310) 641-7704

Travis Companies, Inc.
4430 E. Miraloma Ave, Suite F, Anaheim, Ca 92807
Tel: (714) 693-9368 Fax: (714) 693-9333
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DRAWN BY: A.J.
DATE: 2-7-13
SCALE: 1/4" = 1'-0"
PLOT: 1-7
REF: CP-A2.0
FILE: 0162-0001

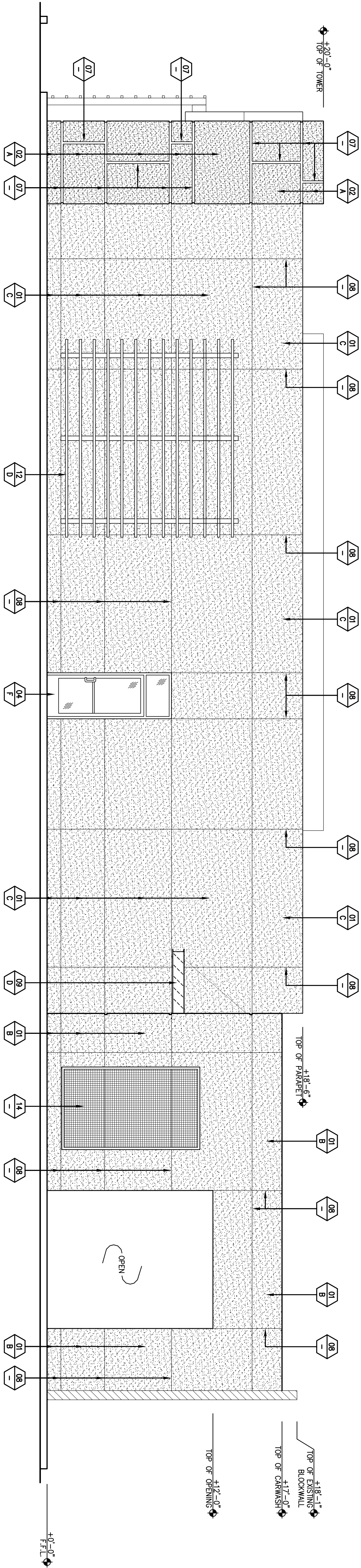
EXTERIOR FINISH SCHEDULE

01 MATERIAL / FINISH
A COLOR

- MATERIAL / FINISH:
- 01 7/8" EXTERIOR CEMENT PLASTER (3 COATS) OVER SELF-FLUERING DIAMOND MESH OVER 2 LAYERS GRADE "D" BUILDING PAPER FINISH: 20/30 FINE SAND FINISH
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 - 03 7/8" EXTERIOR CEMENT PLASTER (3 COATS) OVER SELF-FLUERING DIAMOND MESH OVER 2 LAYERS GRADE "D" BUILDING PAPER FINISH: "WET" GROOVED PLASTER
 - 04 ALUMINUM STOREFRONT SYSTEM
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 - 07 2" PLASTER REVEAL
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 - 14 CRIMPED ALUMINUM MESH SCREEN

COLOR:

- A SHERWIN WILLIAMS: #SW6048 - "TERRA BROWN"
- B SHERWIN WILLIAMS: #SW6145 - "THATCH BROWN"
- C SHERWIN WILLIAMS: #S1142 - "MACADAMIA"
- D SHERWIN WILLIAMS: #SW6994 - "GREENBLACK"
- E SHERWIN WILLIAMS: #SW6006 - "BLACK BEAN"
- F ALUMINUM STORE FRONT
- G MANUFACTURER: ARCADIA, INC. - TEL: (323) 269-7300 MODEL NO: AR451 COLOR: CLEAR ANODIZED FINISH
- H COLOR / FINISH TO MATCH ADJACENT SURFACE
- I ALPOLC: #AMMTCR - "CLEAR ANODIZED"
- J SMOOTH CEMENT FINISH - NATURAL GRAY COLOR
- K MANUFACTURER: OVERHEAD DOORS, CORP. MODEL NO: 610 SERIES COLOR: POWERGLARD WEATHERED FINISH - "PLATINUM"



EAST ELEVATION

3 SCALE: 1/4" = 1'-0"

DRAWN BY: A.J.
DATE: 2-1-13
SCALE: 1/4" = 1'-0"
PLOT: 1-1
REF: CP-A2.0
FILE: 0162-0001

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WASHSEP, INC.
CULVER CITY CHEVRON
11197 WASHINGTON PLACE
CULVER CITY, CA. 90232
TEL: (310) 641-7707
FAX: (310) 641-7704

PREPARED BY: Travis Companies, Inc.
4430 E. Miraloma Ave, Suite F, Anaheim, Ca 92807
Tel: (714) 693-9368 Fax: (714) 693-9333
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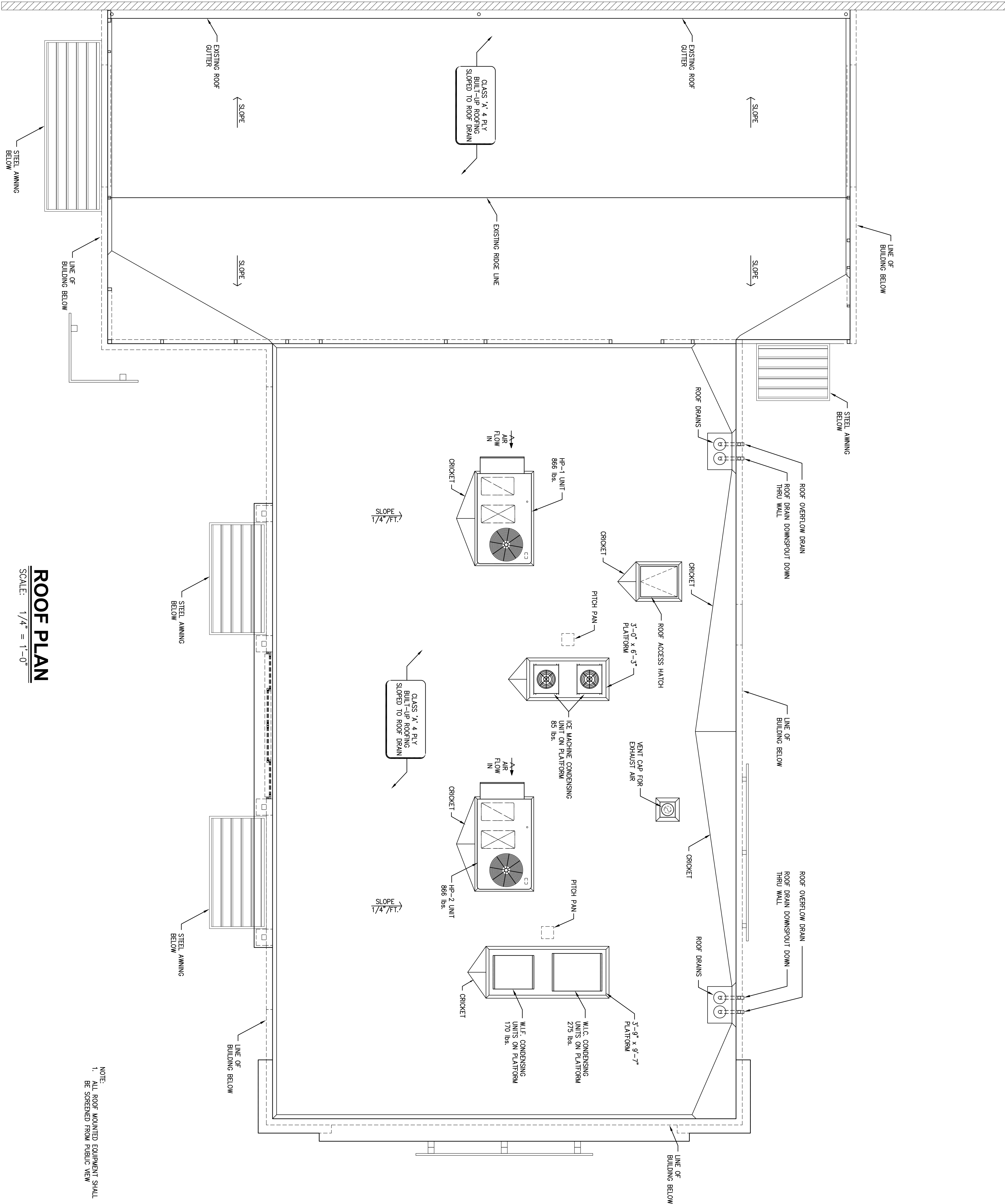
NO.	REVISION	DATE
1		
2		
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8		
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10		

BUILDING ELEVATIONS
CHEVRON SERVICE STATION 9-2894
11197 WASHINGTON PLACE
CULVER CITY, CA 90232

A2.1

DRAWING NUMBER

11/27/2013



ROOF PLAN
SCALE: 1/4" = 1'-0"

NOTE:
1. ALL ROOF MOUNTED EQUIPMENT SHALL
BE SCREENED FROM PUBLIC VIEW

CONCEPTUAL ROOF PLAN
CHEVRON SERVICE STATION 9-2894
11197 WASHINGTON PLACE
CULVER CITY, CA 90232

NO.	REVISION	DATE

PREPARED BY:  **Travis Companies, Inc.**
4430 E. Miraloma Ave, Suite F, Anaheim, Ca 92807
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PREPARED FOR: **WASHSEP, INC.**
CULVER CITY CHEVRON
11197 WASHINGTON PLACE
CULVER CITY, CA. 90232
TEL: (310) 641-7707
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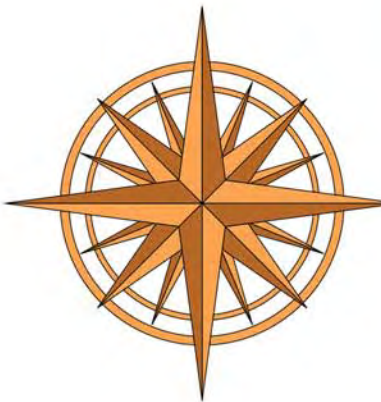
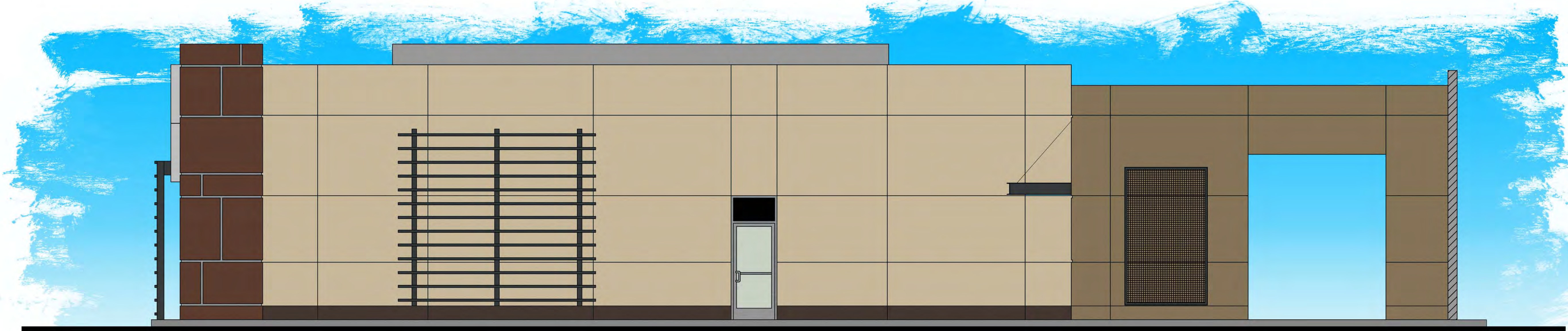
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DRAWN BY: A.J.
DATE: 2-1-13
SCALE: 1/4" = 1'-0"
PLOT: 1-1
REF: CC-PH2-A3.0
FILE: 0142-0001

PREPARED FOR :

WASHSEP, INC.

CULVER CITY CHEVRON
11197 WASHINGTON PLACE
CULVER CITY, CA. 90232
TEL: (310) 641-7707
FAX: (310) 641-7704



Travis Companies, Inc.

4430 E. Miraloma Avenue, Suite F, Anaheim, California 92807

NOTE: This information is conceptual in nature and is subject to adjustments pending further verification and client, tenant and governmental agency approval. No warranties or guaranties of any kind are given or implied by the architect.



(310) 253-5710

FAX (310) 253-5721

PLANNING DIVISION

9770 CULVER BOULEVARD, CULVER CITY, CALIFORNIA 90232-0507

INITIAL STUDY

ENVIRONMENTAL CHECKLIST FORM AND ENVIRONMENTAL DETERMINATION

Project Title:	CUP P-2013090 Chevron Car Wash		
Lead Agency Name & Address:	City of Culver City, Planning Division 9770 Culver Blvd., Culver City, CA 90232		
Contact Person & Phone No.:	Joshua Williams, Associate Planner (310) 253-5706		
Project Location/Address:	11197 Washington Place		
Nearest Cross Street:	Washington Place and Sepulveda Boulevard	APN:	4213-017-003
Project Sponsor's Name & Address:	Travis Companies c/o Karl Huy 4430 E. Miraloma Ave, Suite F Anaheim, CA 92807		
General Plan Designation:	General Corridor	Zoning:	Commercial General (CG)
Redevelopment Project Area:	N/A		
Overlay Zone/Special District:	Commercial Zero Setback Overlay		
Project Description and Requested Action: <i>(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)</i> The project involves the conversion of an existing commercial metal service bay building into a drive-through car wash and the addition of an approximate 2,500 square foot convenience store to accompany the existing general retail gasoline operation, currently operated as a Chevron gas station. The project will require new landscaping around the perimeter of the building.			
Existing Conditions of the Project Site: The site is currently developed with a Chevron gas station accompanied by a small market and service bays for vehicle repair in a structure located at the northeast corner of the property. The property is comprised of three structures, including a raised fuel island canopy with six fuel dispensers, a trash enclosure, and an existing building housing the small market and service bays. The gas station provides six fueling stations. The site is relatively flat with landscape planter areas located along the Sepulveda Boulevard and Washington Place street frontage, and abutting the wall located along the property's eastern property line.			

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

West: Commercial. Automotive Repair (across Sepulveda Boulevard)
East: Commercial. Automotive Repair
North: Commercial. Shopping Center and Single Family Residential (across 20 foot alley)
South: Commercial. Vacant lot and hotel (across Washington Place)

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

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

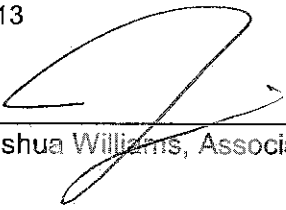
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a 'Potentially Significant Impact' as indicated by the checklist on the following pages:

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



Joshua Williams, Associate Planner

11/20/2013
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)	<u>No Impact.</u> The project site is not located within a scenic vista area designated by the City of Culver City.
b)	<u>No Impact.</u> The project site is not located adjacent to a state scenic highway, nor will it result in damage to any scenic resources.
c)	<u>No Impact.</u> The project will result in the construction of a 2,500 sq. ft. convenience store as part of an existing gas station.
d)	<u>Less Than Significant Impact.</u> The project will be required to comply with the Culver City Zoning Code, Section 17.300.040, which requires that outdoor lighting be shielded so that direct glare and reflections are confined to the maximum extent feasible within the boundaries of the site and shall be directed downward and away from adjoining properties and public rights-of way.

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 | ☐ | ☐ | ☐ | ☒ |

EVALUATION OF ENVIRONMENTAL IMPACTS:		Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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)	<u>No Impact.</u> The subject property is neither used for nor zoned for agricultural uses. The project site is developed with an existing gas station facility, including a building with vehicle repair bays and a small convenience store. The remainder of the site is paved over with concrete, except for several landscaped areas around the property's perimeter. No forestland exists on or in the vicinity of the subject property. The project will not result in the conversion or loss of farmland or forest land, therefore the project will not result in any impacts.				
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)	<u>Less Than Significant Impact.</u> A significant air quality impact may occur if a project is not consistent with the applicable Air Quality Management Plan (AQMP) or would in some way represent a substantial hindrance to employing the policies or obtaining the goals of that plan. In the case of projects proposed within the South Coast Air Basin (such as Culver City), the applicable plan is the Air Quality Management Plan (AQMP), which is prepared by the South Coast Air Management District (SCAQMD). Projects that are consistent with the projections of employment and population forecasts identified in the Growth Management Chapter of the				

EVALUATION OF ENVIRONMENTAL IMPACTS:		Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
		Regional Comprehensive Plan and Guide (RCPG), which is ultimately based on the uses identified and permitted under a City's General Plan. The Culver City General Plan identifies the subject property for commercial uses, which includes gas station and convenience store type uses. The project involves the conversion of existing vehicle repair bays into an automatic drive-through car wash facility. A 2,500 square foot convenience store will be added to the existing structure. The project will be consistent with the City's General Plan and the RCPG, and therefore will not conflict with or obstruct the implementation of the applicable air quality plan.			
b)		<u>Less Than Significant Impact.</u> The project includes the change of use to an existing building and the addition of a 2,500 square foot convenience store to an existing gas station operation. Emissions are expected during times of construction and during operations. Operational emissions from the car wash and convenience store are likely to be generated by vehicle emissions from trips to and from the car wash and store, and electrical power usage, including the electricity required to operate the store and car wash facility, and landscape maintenance equipment. Based on the size of the operation, the project is not anticipated to contribute substantially to an existing or projected air quality violation.			
c)		<u>Less Than Significant Impact.</u> As mentioned in the response to III.b, the project is anticipated to generate emissions from both construction and operational activities. In order to reduce the impact of the project on the surrounding environment, the project will be required to adhere to the Culver City Mandatory Green Building Program, which can require among other options: the use of energy efficient heating and cooling equipment, insulation of the building to prevent heat/cooling loss, the use of energy-efficient LED lighting, waterless urinals, low-water drought tolerant landscaping, and 1 KW of solar energy. Per the Building & Safety Division, the project is identified as a Category 1 project, which requires the developer to adhere to 80 percent of the Green Building requirements. Through adherence to the Green Building guidelines, project emissions will be reduced to less than significant.			
d)		<u>Less Than Significant Impact.</u> The project is not anticipated to result in the exposure of sensitive receptors, such as schools or senior citizen homes, to substantial pollution concentrations. In addition to the implementation of Green Building standards, the project shall be subject to regulations and laws relating to toxic air pollutants at the regional, State, and Federal level designed to protect sensitive receptors from substantial concentrations of these emissions. Therefore, impacts related to this issue will be less than significant.			
e)		<u>Less Than Significant Impact.</u> The project will be located on at a site used for an existing gas station facility. According to the SCAQMD CEQA guidance document ¹ , land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The project does not include any uses identified by the SCAQMD as being associated with odors. During construction, activities associated with the operation of construction equipment, the application of asphalt, the application of architectural coatings and other interior and exterior finishes, and roofing may produce discernible odors typical of most construction sites. SCAQMD Rule 1113 limits the amount of volatile organic compounds from architectural coatings and solvents to further reduce the potential for odiferous emissions. Although these odors could be a source of nuisance to adjacent uses, they will be temporary and intermittent in nature. Therefore, the proposed project would not result in the creation of objectionable odors and potential odor impacts would be less than significant.			

Mitigation Measure(s): None Required.

EVALUATION OF ENVIRONMENTAL IMPACTS:		Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐
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) - d)	<u>Less Than Significant Impact.</u> The project site is located in an urbanized area and is presently developed as a gas station, with repair bays and a small convenience store. No sensitive plant or animal species are located on the site. Water used on-site for the new carwash facility will be recycled through the system, limiting runoff into storm drains that then drains to the ocean. The project does not involve development in a federally protected wetland and does not involve improvements that would impair or interrupt hydrological flow into a wetland. Nor will the project interfere with the movement of any native resident or migratory fish or known wildlife species. Therefore, project impacts will be less than significant.				
e)	<u>Less Than Significant Impact.</u> The project is located in an urbanized setting and lacks any known sensitive plant or animal species. The project site is landscaped with common ornamental trees and shrubs typically used in landscaping areas. As part of the project, four trees in the landscape area will be removed and required, pursuant to City code, to be replaced with new trees on-site. Therefore, impacts will be less than significant.				
f)	<u>No Impact.</u> The project site is located in a developed, urbanized area. The site is not located within the boundaries of a Habitat Conservation Plan, Natural Community Conservation Plan, or any other jurisdictional habitat conservation plan. Therefore, the project would not conflict with any such adopted plan.				

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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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? | ☐ | ☐ | ☐ | ☒ |
| 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) - d)	<u>No Impact.</u> The project site is presently developed with an existing gas station, with a car repair facility and small convenience store. The proposed project will involve the conversion of the car repair bays to a drive-through car wash and the addition of a 2,500 square foot convenience store on the site. The project site does not contain any historically significant resources, archaeological resources or paleontological resources. The project will not involve the any significant activity below existing grade level and will therefore result in minimal disturbance to the site. Therefore, no impacts are anticipated related to cultural resources.
---------	---

Mitigation Measure(s): None Required.

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? | ☐ | ☐ | ☒ | ☐ |

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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) and ii)	<u>Less Than Significant Impact.</u> The subject property is not located in an area identified as being within an Alquist-Priolo Earthquake Fault Zone ² . While the property will be subject to seismic shaking, like all building in an earthquake prone area, the project will be required to meet current Building Code standards which are intended to withstand shaking typically produced by faults in Southern California. Therefore, impacts will be less than significant.
iii) and iv)	<u>Less Than Significant Impact.</u> The subject property is not located in an area identified as being susceptible to liquefaction or landslides ³ . As noted in the response to VI.a.i and a.ii, the project will be subject to current building code standards that are designed to withstand shaking associated with earthquakes produced by faults typically found in Southern California.
b)	<u>Less Than Significant Impact.</u> The project is proposing minimal site disturbance as part of construction of the new convenience store and the conversion of an existing structure into a drive-through carwash. During construction, grading would expose minimal amounts of soil for a limited time, allowing for possible erosion. Although the project development has the potential to result in minor erosion of soils during site preparation and construction activities, erosion would be reduced by implementation of erosion controls imposed during grading and construction. Runoff associated with the project would be directed to landscape areas and/or pre-manufactured stormwater quality best management practices (BMPs) for infiltration and water quality purposes or directed to an impervious drainage system. While the construction and related ground disturbance will alter the existing drainage patterns on the site, the standard erosion control measures identified will reduce the project impacts to less than significant.
c) - e)	<u>Less Than Significant Impact.</u> As noted in VI.a.iii and VI.a.iv, the project is not located in an area identified as being susceptible to landslides or liquefaction. Therefore impacts will be less than significant. The project will be constructed according to current building code standards which are intended to withstand shaking typically produced by faults in Southern California. Furthermore, the project will not utilize septic tanks or alternative waste water disposal systems. Therefore, impacts will be less than significant.

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?	☐	☐	☒	☐

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

a)	<u>Less Than Significant Impact.</u> The project involves the reuse of an existing structure and the construction of a new 2,500 square foot building for use as convenience store. The CEQA Guidelines state that a threshold of significance may be a quantitative, qualitative, or based on performance level of a particular environmental effect above which impacts will normally be considered significant. (CEQA Guidelines, §15064.7, subd. (a).) In order to address greenhouse gas emissions (GHGs) and reduce their level of significance to "less than significant" (or less than what would normally be produced without implementation of emission reduction strategies), the reduction of GHG emissions should be achieved by implementation of all technologically feasible and cost-effective measures. For this project, the applicant will be required to achieve 80 percent of recommended measures in the City's Mandatory Green Building Program. By adhering to the City's guidelines, which may include the use of solar photovoltaic panels, energy-efficient LED lighting, waterless urinals, and low-water drought tolerant landscaping, the project will reduce the amount of GHGs reduced into the atmosphere from energy consumption for on-site activities (e.g., watering of landscaping, lighting of the carwash and store) and off-site activities (e.g., production of electricity and wastewater treatment). Through implementation of the City's Mandatory Green Building Program, as required by the City's Building & Safety Division, and the use of "best practices" in the operation of the facility (such as the recycling of water in the carwash), the impacts related to the project will be less than significant.			
b)	<u>Less Than Significant Impact.</u> The project will not be in conflict with any applicable plan, policy or regulation that has been adopted for the purpose of reducing greenhouse gases. The project will be in conformance with the City's guidelines for green building, which seek to reduce the impact of new projects in the City, including during construction and operation. In addition, the project will be in conformance with the City's General Plan which identifies the potential for population and employment growth in the City. Impacts related to this issue will be less than significant.			

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??	☐	☐	☒	☐
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?	☐	☐	☐	☒

EVALUATION OF ENVIRONMENTAL IMPACTS:		Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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)	<u>Less Than Significant Impact.</u> The project involves the conversion of an existing car repair building into a drive-through car wash and the construction of a 2,500 square foot convenience store. The project will utilize potentially hazardous materials as part of its construction and operation, including solvents, paints, petroleum products and pesticides. All potentially hazardous materials will be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. The transport of these materials, typically sold as consumer goods, would not pose a significant hazard to the public or the environment. In addition, during construction, the developer will be required to consult with the City's Fire Prevention Division regarding handling or removal of any potentially hazardous chemicals on the subject site. During operation, the carwash facility will utilize chemical components typically found in the home. Therefore, impacts will be less than significant.
b)	<u>Less Than Significant Impact.</u> The carwash component of the project will utilize chemicals typically found in the home and available over the counter. It is not anticipated that the carwash facility, nor the convenience store addition, will result in additional hazards to the public through the potential release of chemicals into the atmosphere. All potentially hazardous materials, including those used for normal maintenance and landscaping, will be contained, stored and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Impacts related to this issue will be less than significant.
c)	<u>Less Than Significant Impact.</u> The project site is not located within a quarter-mile of a school facility. As measured, the property is approximately 0.30 miles south west of La Ballona Elementary School. The Impacts related to this issue would be less than significant.
d)	<u>No Impact.</u> The project is not located on a site identified pursuant to Government Code Section 65962.5, and included in the State's EnviroStar Database ⁴ . Therefore, no impact will result.
e)	<u>No Impact.</u> The project site is located approximately 2 miles from the Santa Monica Municipal Airport. The single story car wash building will involve little to no increase in height to the site, and will not impact the flight pattern or present any other hazard to air traffic above or near the property. Therefore, this issue will result in no impacts.
f)	<u>No Impact.</u> The project will involve the conversion of an existing structure into a drive-through car wash facility and the addition of a convenience store to an existing gas station facility. The project is located approximately 2 miles southeast of the Santa Monica Municipal Airport. It is not anticipated that the single-story car wash facility will impact the path of travel of aircraft in any way, thereby resulting in a hazardous situation for people residing or working in the area. Therefore, the project will have no impacts.
g)	<u>Less Than Significant Impact.</u> The project will not modify or block access to the subject site or surrounding streets. No impediment will be added to implementation of an adopted emergency

EVALUATION OF ENVIRONMENTAL IMPACTS:		Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
	response plan or emergency evacuation plan. The project impacts will be less than significant.				
h)	<i>Less Than Significant Impact.</i> The project site is not located adjacent to or in the vicinity of any wildland areas. Therefore, risk associated with wildland fires will be less than significant.				

Mitigation Measure(s): None Required

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?	☐	☐	☒	☐
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)	<i>Less Than Significant Impact.</i> The project development will conform to all requirements of the Regional Water Quality Control Board (RWQCB) and Municipal Code and will not result in unpermitted discharges into the sanitary sewer and storm water systems. Therefore, implementation of the project will result in less than significant impacts related to this issue.
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EVALUATION OF ENVIRONMENTAL IMPACTS:		Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
b)	<u>Less Than Significant Impact.</u> The project will not have a significant impact on groundwater supplies. The carwash facility will recycle the water used in the carwash operation, thereby reducing consumption of water. In addition, water runoff will be directed to on-site landscape areas for capture and restoration into the ground water system. Project impacts will be less than significant.				
c) - e)	<u>Less Than Significant Impact.</u> The project site is fully developed and covered almost entirely by impervious surfaces in the form of building and parking lot areas. Presently, storm water does not infiltrate into the ground, but sheet-flows across the site to the local storm drain system. The site is not a significant source or area for groundwater recharge. As proposed, the run-off associated with the project will be either directed to landscaped areas and/or pre-manufactured storm water quality BMPs for infiltration and water quality purposes or directed to the storm drain system. As such, the alteration of the existing drainage pattern would not result in substantial erosion or siltation on- or off-site. The project will also not result in any increase in runoff to local storm drains. Therefore, project impacts related to altering drainage patterns will be less than significant.				
f)	<u>Less Than Significant Impact.</u> The applicant will be required to prepare and implement a Local Stormwater Pollution Prevention Plan (LSWPPP), which details the construction activities, materials, and wastes and lists the best management practices (BMPs) to control pollutant discharge during construction. The LSWPPP shall include Best Management Practices (BMPs) that prohibit the entry of pollutants from the construction site into the public street or storm drain system. The SUSMP shall provide BMPs that adequately address the pollutants generated during the post-construction stage for the first ¾" of a rain event. It will also identify responsible entities during the construction and post construction phases. Preparation of the SWPPP and SUSMP and compliance with the City's Minimum Storm Water Protection Requirements would ensure that the project will not violate any water quality standards. Therefore, the project impacts related to water quality will be less than significant.				
g)-h)	<u>No Impact.</u> The project site does not include any housing nor is it located within a 100 year flood hazard area. Therefore, there will be no impacts.				
i)	<u>Less Than Significant Impact.</u> The project site is located within the Stone Canyon Dam Inundation Zone. The project will not impede escape routes or access of emergency vehicles in the event of a major flood incident. The project will adhere to all emergency procedures to minimize impacts to building occupants.				
j)	<u>Less Than Significant Impact.</u> The project site is located at a significant distance to the nearest coastal area subject to tsunami and seismic sea waves, and has not been identified as being within range of potentially damaging waves ⁵ . In addition, the project site is not located downslope of any large bodies of water that could adversely affect the site in the event of earthquake-induced failures or seiches or wave oscillations in an enclosed or semi-enclosed body of water. Therefore, impacts are less than significant.				

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?	☐	☐	☐	☒

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

a)	<i>Less Than Significant Impact.</i> The project will not modify the existing configuration of the lot such that would divide an established community. The project will convert an existing structure to a drive-through car wash and will add a 2,500 square foot convenience store to the site. Impacts resulting from the construction of the building will be less than significant.			
b)	<i>No Impact.</i> The project will be consistent with the General Plan designation of General Corridor Commercial. In addition, the project will be consistent with the zoning designation of Commercial General, which permits the proposed car wash facility with a conditional use permit and the 2,500 square foot convenience store as a permitted use.			
c)	<i>No Impact.</i> The project is located on a fully developed site in an urban setting. It is not located in an existing habitat conservation plan or natural community conservation plan. There will be no impacts related to this issue.			

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)	<i>No Impact.</i> The project will involve the conversion of an existing structure into a drive-through carwash and the addition of a 2,500 square foot convenience store. The project will not result in any disturbance to known mineral resources in the immediate vicinity. The project area is predominantly urbanized and is surrounded by existing disturbed land and development.			
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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? | ☐ | ☐ | ☒ | ☐ |

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

Responses:

a), c) and d)	<u>Less Than Significant Impact.</u> The project will involve the conversion of an existing structure to drive-through car wash and the addition of a 2,500 square foot convenience store. In order to address potential issues related to noise generated by the carwash facility, an Acoustical Analysis prepared by Colia Acoustical Consultants, dated June 12, 2013, was submitted as part of the application. The study specifically looked at the effect of properties most likely to be impacted by noise from the carwash, located to the northeast of the site and comprising commercial and residential development. The Culver City Noise Ordinance (Chapter 9, Section 9.07.035 "Construction") exempts noise sources associated with construction when performed between the hours of 8:00 AM and 8:00 PM on weekdays, 9:00 AM and 7:00 PM on Saturdays, and 10:00 AM and 7:00 PM on Sundays. The project will require the use of equipment for demolition on the inside of the building, as part of tenant improvements. During the demolition and construction, activities will not be constant. The noise levels will vary based on the amount of equipment in operation at any given time and the location of each activity on the project site. Due to the use of construction equipment during the construction phase, the project will expose nearby residents and commercial tenants to increased ambient exterior noise levels, typical of construction activities on nearby properties. The project applicant will notify surrounding residential neighbors in advance of construction activities, and both the Applicant's and City's contact information will be posted on the project site to direct residents wishing to report noise and other construction activity complaints. Through compliance with the City's Noise Ordinance, temporary noise levels associated with construction activities will be less than significant. During the ongoing operation of the convenience store component of the project, on-site operational noise will typically be generated by heating, ventilation, and air conditioning (HVAC) equipment. Through the use of Code required screening and adherence to Title 24 of the California Code of Regulations, which requires interior noise levels not to exceed 45 dBA, occupants of adjoining uses will not be exposed to excessive interior noise levels. Additional noise will be generated by the carwash operation. The Acoustical Analysis prepared by Colia Acoustical Consultants identified that in order to determine the potential noise impacts from the carwash, measurements were taken at a local carwash using the exact same equipment that would be utilized by the project. Measurements were made at points all around the existing car wash facility. The analysis determined that the loudest points of the operation came during the "dryer/blower sequence." The duration of the dryer sequence lasts approximately one minute. The analysis determined that the loudest point at the car wash facility is 10 feet from the exit at 180 degrees, where the dryer noise is measured to be 86 dBA. Within a one hour period of time, the worst case scenario would see the dryer operating for 18.75 minutes. The car wash noise is 72 dBA for 25 minutes in any one hour. The Noise Element of the City's General Plan limits exterior noise levels to 65 dB and interior noise levels to 45 dB for adjacent residential and commercial properties. The analysis determined that noise levels at the property line of the closest adjacent residential lot would be 64.5 dBA from the noise at the entrance side of the carwash and 67.8 dBA at the exit side.
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EVALUATION OF ENVIRONMENTAL IMPACTS:		Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
	In order to reduce noise impacts to less than significant status (below the 65 dB threshold identified in the General Plan's Noise Element), the analysis recommends additional shielding along the northeast corner of the lot, near the exit of the carwash. The analysis recommended a 6.2 foot high wall around the rear property line, in the gap between the existing 18 foot high wall and the building on the abutting property to the east. By providing a 6.2 foot high CMU block wall, the analysis identifies that noise from the carwash will be reduced by 5 dB to 59.5 dB CNEL at the north and 62.8 dB CNEL at the northwest. The project will further reduce noise impacts by increasing the height of the wall, per Staff's direction, to 10 feet. The analysis also identified potential noise issues from the vacuum stations located along the east side of the property. The vacuum units will combined provide a decibel level of 67.3 dB as measured at the property line to the north. The installation of the 6.2 ft high CMU block wall would reduce the noise level to 62.3 dB. As noted above, the project will install a 10-foot high CMU block wall at Staff's direction to further reduce potential noise impacts. With the maintenance of the existing 18-foot high CMU block wall and the installation of a new 10-foot high CMU block wall along the rear property line, impacts related to noise will be less than significant.				
b)	<u>Less Than Significant Impact with Mitigation.</u> As is typical of carwash operations, the most noise will be generated by the operation of the dryer/blower at the end of the cycle. Specifically, noise impacts are highest at the exit from the car wash, as identified in the Noise Study. In order to mitigate potential impacts to neighboring residential projects to the north of the project site, the addition of four feet to the proposed six-foot high wall, thereby creating a minimum 10-foot high wall along the rear property line between the car wash exit and the abutting building to the east, will be required. With the mitigation, the impacts related to this issue will be less than significant.				
e) - f)	<u>Less Than Significant Impact.</u> The project is not located within an adopted airport land use plan. However, it is located within approximately two miles of the Santa Monica Municipal Airport. The project, a drive-through carwash and 2,500 square foot convenience store, will not result in the exposure of residents or commercial tenant workers in the project area to excessive noise levels from aircraft operations or a change in flight path, therefore impacts will be less than significant.				

Mitigation Measure(s):

- XII.b The project shall incorporate a 10-foot high wall along the rear property line, abutting the alley, located between the exit of the car wash and the building wall for the adjacent property to the east.

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) | <u>Less Than Significant Impact.</u> The project will not result in any significant increase in population growth in the area. The applicant has identified that the number of people employed by the gas station, convenience store and car wash facility as less than 10. Impacts related to this issue will be less than significant. |
|----|--|

EVALUATION OF ENVIRONMENTAL IMPACTS:		Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
b)- c)	<i>No Impact.</i> The project will involve the conversion of an existing service bay structure into a drive-through car wash and the construction of a 2,500 square foot convenience store on the site of an existing gas station facility. The project will not involve the displacement of people or housing, therefore there will be no impact related to this issue.				

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)	<i>Less Than Significant Impact.</i> During internal staff review of the project, neither the Culver City Police Department nor the Culver City Fire Department identified impacts related to their response times. Further, neither agency identified impacts to their ability to provide adequate services. Therefore, impacts related to fire and police protection will be less than significant. The project, the conversion of an existing structure to a drive-through carwash and the construction of a 2,500 sq. ft. convenience store, will not directly result in an increase in school age children in the community. The project is not anticipated to result in an increase of usage of the public parks system in the community, or of any other public facility. Therefore, project impacts will be less than significant.
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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)	<i>Less Than Significant Impact.</i> The project will not result in an increase in population on-site or in the immediate vicinity, nor will it include recreational facilities. Therefore, impacts will be less than significant.
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Mitigation Measure(s): None Required

EVALUATION OF ENVIRONMENTAL IMPACTS:		Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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 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)- b)	<u>Less Than Significant Impact.</u> As part of the application for the proposed project, the applicant submitted a <i>Traffic Impact Analysis</i> prepared by Kimley-Horn and Associates, Inc. (dated July 2013). The analysis was reviewed and approved by the City's transportation engineer. The analysis looked at potential traffic impacts at five intersections surrounding the subject property: 1. Sepulveda Boulevard and Interstate 405 northbound ramps; 2. Sepulveda Boulevard at Washington Place; 3. Sepulveda Boulevard at Washington Boulevard; 4. Sawtelle Boulevard at Washington Place; and 5. Washington Boulevard at Washington Place The analysis examined existing conditions at the five intersections, existing plus project, project build out year (2014) without project, project build out year (2014) with project, and project build out with mitigation. Currently, all study intersections are operating at Level of Service D or better in both the AM and PM peak hours. Level of Service (LOS) D is characterized as having "fair" traffic, where "delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive back-ups." Trip generation rates for the proposed project were derived from the Institute of Transportation Engineers (ITE) Trip Generation Manual (9th Edition). Trip generation for the project is based upon the additional trips that will be generated by the additional Convenience Mart square footage. A 10 percent internal capture reduction was taken to account for the interaction				

EVALUATION OF ENVIRONMENTAL IMPACTS:		Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
	between the use of the gas facilities, the car wash and the convenience store. A 25 percent pass-by assumption was taken into account for cars that were already on the street system and used the gas station/car wash/convenience store as an interim stop. The analysis identified that the proposed use will generate 88 new trips (44 in, 44 out) new trips in the AM, and 68 new trips (35 in, 33 out) in the PM peak hours At future levels (2014), with or without the project, the analysis concluded that three of the surrounding intersections (Sepulveda Boulevard at I-405 northbound ramps; Sepulveda Boulevard at Washington Place; and Sepulveda Boulevard at Washington Boulevard) will operate at LOS E. As noted previously, the existing use (Chevron Gas Station) with the proposed drive-thru car wash and convenience store will not result in significant impacts on any of the surrounding roadways. During its review of the project's on-site circulation, City staff provided requirements to ensure safe ingress and egress from the project site via its multiple driveways, limiting turn-in and turn-out movements from Washington Place, where the carwash exits. The project will not require any mitigation measures to reduce impacts on surrounding roadways, intersections, or on-site circulation. Therefore, impacts will be less than significant.				
c)	<u>No Impact.</u> The project will result in the conversion of an existing single story building into a car wash facility and the addition of a single story 2,500 sq. ft. convenience store. As proposed, the project will not result in any impacts to air traffic patterns.				
d)	<u>Less Than Significant Impact.</u> The project will not alter the street configuration in the area. In addition, the project will include signage and stenciling to alert drivers of the one way exit from the car wash. The signage will reduce potential conflicts between traffic entering and exiting the site with normal circulation on surrounding streets. Impacts will be less than significant.				
e)	<u>Less Than Significant Impact.</u> The project will not create impediments to emergency vehicles requiring access to the site. As part of the review by City Staff, Fire Prevention reviewed on-site circulation to determine if the site was accessible for their emergency equipment and determined there would be no significant impacts. Therefore, impacts related to this issue are less than significant.				

Mitigation Measure(s): None Required

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?	☐	☐	☒	☐
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?	☐	☐	☒	☐

EVALUATION OF ENVIRONMENTAL IMPACTS:		Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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)	<u>Less Than Significant Impact.</u> The project will connect to the City's existing wastewater treatment system. The proposed project is not expected to result in a substantial increase beyond the projected development potential, residential population and employment population for that area as permitted under the General Plan. Therefore, the project is unlikely to result in development which exceeds the current wastewater treatment loads established by the Regional Water Quality Control Board.				
b)	<u>Less Than Significant Impact.</u> Water treatment needs of the City are accommodated by the Metropolitan Water District's (MWD) Joseph Jensen Treatment Plant in the City of Los Angeles. Due to the change of use of the building and addition of floor area, the project is subject to the City's Sewer Facility Charge. Pursuant to requirements from the Public Works Department, the charge shall be paid prior to the issuance of any permit and will go towards infrastructure improvements related to the cumulative use of City infrastructure. In addition, pursuant to the City's Green Building Program, and as proposed by the Applicant, the project will include water saving plumbing features, including the use of waterless urinals, auto flush toilets, and hands free faucets. Through the use of these features and the payment of sewer facility fees, the project impacts on the water system will be less than significant.				
c)	<u>Less Than Significant Impact.</u> The project site is developed and is generally covered with impervious surfaces. The project site is located within an area that includes existing and adequate storm drainage facilities. A substantial change in surface water runoff patterns is not expected. Therefore, impacts will be less than significant.				
d)	<u>Less Than Significant Impact.</u> The project will not result in the requirement for new water resources or entitlements for water resources. As previously noted, the project will incorporate water saving features intended to reduce the impact of the project on water resources.				
e)	<u>Less Than Significant Impact.</u> Existing wastewater treatment facilities will be able to accommodate anticipated wastewater demands of the project in addition to the provider's existing commitments.				
f)- g)	<u>Less Than Significant Impact.</u> The City of Culver City operates a transfer station at 9255 Jefferson Boulevard. The transfer station receives a maximum of 500 tons of solid waste per day, with an average of 250 tons of solid waste per day. Solid waste from the transfer station is sent to Puente Hills Landfill, Chiquita Canyon Landfill, or the Southeast Resource Recovery Facility (SERRF). In compliance with the City's Green Building Program, and best practices, the project will incorporate recycling services to reduce the amount of solid waste produced from the site. Based on existing conditions, both Chiquita Canyon Landfill and Puente Hills Landfill have adequate capacity to accommodate the disposal needs of the facilities. With implementation of waste reduction programs, identified above, impacts on the landfills will be less than significant with the project. As proposed, the project would be in compliance with state, federal, and local statutes and regulations related to solid waste.				
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)	<u>Less Than Significant Impact.</u> The project would not result in any significant impacts that would result in the potential degradation of the quality of the environment. The project site is presently paved and utilized for a gas station facility. No known habitat of fish or wildlife species will be impacted by the proposed project. Therefore, impacts will be less than significant.				
b)	<u>Less Than Significant Impact.</u> The project will not result in any impacts that are cumulatively considerable. As noted, traffic impacts from the project when considered in light of other developments in the vicinity remain below the threshold of significance. Any potential cumulative impacts will be substantially reduced to less than significance due to standard code requirements and conditions of approval.				
c)	<u>Less Than Significant Impact.</u> The project will not cause substantially adverse effects on human beings either directly or indirectly. Impacts related to the project will be less than significant.				
Mitigation Measure(s): None Required					

XVIII. EARLIER ANALYSES:

None

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 indicates 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 Chevron Car Wash – CUP P-2013090 11/20/2013				
MITIGATION MEASURE	Implementing Action, Condition or Mechanism	Method of Verification	Timing of Verification	Responsible Persons
<u>Mitigation Measure XII.b</u> The project shall incorporate a 10-foot high wall along the rear property line, abutting the alley, located between the exit of the car wash and the building wall for the adjacent property to the east.	Condition of Approval	Plan Check; Field Inspection;	Prior to Issuance of a Building Permit	Planning

References Utilized:

1. "Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning," South Coast Air Quality Management District. PDF Document. Accessed September 24, 2013. <http://www.aqmd.gov/prdas/aqguide/doc/chapter02.pdf>
2. City of Culver City Alquist-Priolo Fault Zones Map, City of Culver City. PDF Document. Accessed September 25, 2013. http://culvercity.org/~media/Maps/Map02_Alquist%20Priolo%20pdf.ashx
3. City of Culver City Seismic Hazards Map, City of Culver City. PDF Document. Accessed September 25, 2013. http://culvercity.org/~media/Maps/Map06_Liquefaction_Landslide%20pdf.ashx
4. EnviroStor Database, Department of Toxic Substance Control, State of California. Web site. Accessed September 27, 2013. <http://www.envirostor.dtsc.ca.gov/public/>
5. Culver City Tsunami Map, City of Culver City. PDF Document. Accessed September 30, 2013. <http://culvercity.org/~media/Maps/TsunamiMap.ashx>

COLIA ACOUSTICAL CONSULTANT

177 Riverside, #F
Newport Beach, CA 92663
Certified Acoustical Consultants
Phone 714 960-7511
Cell Phone 949 554-3024
Email: RColia@socal.rr.com

R13-060R

June 12, 2013

ACOUSTICAL ANALYSIS OF THE
PROPOSED NEW SERVICE STATION CAR WASH
AT 11197 WASHINGTON PLACE
IN THE CITY OF CULVER CITY

Prepared For:

TRAVIS COMPANIES, INC.
4430 E. Miraloma Avenue, Suite F
Anaheim, CA 92807

Prepared By:


RICHARD COLIA
Certified Acoustical Consultant

RECEIVED

JUN 18 2013

Culver City
Planning Division

ACOUSTICAL ANALYSIS OF THE
PROPOSED NEW SERVICE STATION CAR WASH
AT 11197 WASHINGTON PLACE
IN THE CITY OF CULVER CITY

PROJECT BACKGROUND

The current property owner of the Chevron service station located at 11197 Washington Place is currently processing an application through the City of Culver City's Planning Division requesting entitlement approval for the site and building improvements to the existing property. The proposed scope of work for this project involves converting the existing commercial metal service bay building into a drive through car wash and adding an approximate 2,500 square foot convenience store to accompany the existing general retail gasoline sales. The project does not propose any changes to the existing use, zoning, current fuel dispensers or canopy operations.

The proposed project has previously been processed through the City's Preliminary Project Review process. During this process various City departments reviewed the project materials and provided the applicant with their comments. It was during this process that the Planning Division requested that noise analysis be prepared and submitted with the CUP application to establish existing noise levels for the project site and adjacent residential areas and to project the noise levels that will be expected with the operation of the car wash.

INTRODUCTION

Pursuant to the request of Travis Companies, Inc. (Project Applicant), Colia Acoustical Consultants were retained to conduct and prepare a detailed site specific acoustical (noise) evaluation and analysis for the project. The intent and purpose of the noise analysis was to establish the baseline noise conditions of the existing project site located on the northeast corner of Washington Place and Sepulveda, as well as existing ambient noise levels of vehicular traffic on the roadways at the commercial and residential areas adjacent to the proposed project site. Further, the analysis will evaluate and measure existing noise levels, project anticipated noise levels of the project car wash and present (where necessary) potential mitigation measures to reduce the noise impacts to reduce the noise impact to acceptable levels as established by the City of Culver City Noise Element of the General Plan.

The Culver City Noise Element states that the exterior noise levels generated by a commercial facility may not exceed 65 decibels (dBA on the A-weighted scale) Community Noise Equivalent Level (CNEL). It is this benchmark noise standard that was used in the analysis and preparation of this noise study.

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The existing project site consists of a fuel island canopy structure, six (6) fuel dispensers and a commercial metal one-story building housing a small mini mart and multiple service bays. This existing site was evaluated via on-site noise measurements to establish existing ambient noise levels. At present the primary source of noise impact at the site is from vehicular traffic on Sepulveda Boulevard, Washington Place and Interstate 405. Based on the proposed addition of the drive through car wash operation to the project site it is anticipated that potential noise impacts would be generated by the car wash equipment that may affect properties to the northeast. These potential affected properties include residential and commercial uses.

ANALYSIS

The current noise impact from the adjacent roadways was determined by on-site measurements. The current noise measurements were made on May 9, 2013. The measurement microphone of a Bruel and Kjaer 2230 Integrating Sound Level Meter was positioned at two (2) locations on and near the proposed car wash site (See Figure 2). Measurements were made at microphone heights of 5.5 feet above existing grade at both locations. The measurement locations were located near the car wash exit side and near the residential area along the alley to the north.

The SLM can provide continuous Equivalent Sound Level (Leq) measurements which are read directly from the digital display on the meter. At the end of each fifteen-minute measurement period a Leq value was taken from the SLM for the representative sample periods. Table 1 shows the results of the measurements.

TABLE 1

Measurement Results, May 9, 2013

Site	Measurement Hour	Measured Leq, dBA	Measured Lmax	Measured Lmin	Calculated CNEL, dBA
1	10:55 AM	63.4	67.1	59.8	65.8
2	11:15 AM	59.5	67.6	55.7	61.8

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As indicated in Table 1 the existing noise levels generated by surrounding vehicular traffic was found at Site 1 to exceed the 65 dBA CNEL Standard.

Project Generated Noise Levels

The potential noise impact from the project with the addition of the car wash is expected to come from the operation of the car wash equipment to be located near the northern portion of the project side. The potential noise impact was based upon measurements of a Laserwash car wash facility. The Laserwash car wash facility was used because this project will use the exact same equipment. The measurements of the car wash and dryer unit were made at an existing facility in another area in the city. Measurements were made at points all around the existing car wash at 10-foot increments. At each position the loudest levels of the entire cycle was during the dryer/blower sequence. The highest noise generation in the dryer cycle was the blower start-up. The noise levels stabilize as the car moves forward in the tunnel. The dryer duration is about one minute. The wash cycle duration is about 4 minutes.

Measurements of the similar car wash and dryer noise levels were made with a B & K 2230 Integrating Sound Level Meter. Because of the duration of the dryer cycle, measurements were recorded as Equivalent Sound Level or Leq. The Leq is the energy average of the noise levels over the cycle period.

Noise Criteria

The Noise criteria were taken from Table N-3 of the City Culver City Noise Element of the General Plan from the City Website. These criteria are shown in the following Table 2.

TABLE 2 (Table N-3)

Interior and Exterior Noise Standards

<i>Land Use</i>	<i>Design Standard CNEL, (dBA) (decibels)</i>	
Residential/Commercial	65 dB Exterior	45 dB Interior

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The proposed car wash is expected to be open 7 AM to 7 PM. For this project the highlighted one-hour average values in Table 2 above will be used to evaluate the noise standards for this project. At the north and northwest project sides the sound standard will be 65 dB.

For the car wash and dryer operations the following duration data were gathered. The car wash duration is 2 minutes, there is a hard spray on the tires for 30 seconds, the rinse is 45 seconds and the dryer starts for a duration of one minute and 30 seconds. It then takes 15 seconds to approximately one minute for the next car in queue to press the code (or insert money) and move into position for the next wash/dry cycle. The total time is 4 minutes 10 seconds. Table 4 shows the duration breakdown for each phase, the percentage per hour and number of minutes per hour.

TABLE 4

Car Wash/Dry Cycle Duration

<i>Phase</i>	<i>Duration</i>	<i>Percentage</i>	<i>Minutes/ Hour</i>
Input Code/Car			
Moves in	0:10 Min.	10.09	0.6
Car Wash/Soap	2:00 Min.	42.00	25.0
Hard Spray	0:30 Min.	15.66	6.25
Dry	1:30 Min.	31.25	18.75
TOTAL	4:10 Min.	100.00	60.0

On-site observations at the similar facility indicated that during peak usage it would be possible for the car wash to run continuously when there are many cars lined up. Thus, the measured Leq would become the one-hour Leq. To calculate the one-hour average noise level or Leq, as per the standard the following methodology was used. As a worst-case day condition the dryer occurs 18.75 minutes in any hour. The car wash impact at 10 feet from the exit at 180 degrees the dryer noise is measured to be 86 dBA. The car wash noise is 72 dBA for 25 minutes in any one-hour.

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The one-hour average Leq was computed as follows:

$$\begin{aligned}\text{One Hour Leq} &= 10 \log ((10^{86/10} \times 18.75 \times 60 + 10^{72/10} \times 25 \times 60) / 3600) \\ &= \mathbf{69.4 \text{ dBA @ 10 feet}}\end{aligned}$$

Where; 18.75 = No. of min./hr. of dryer noise @ 75.9 dBA
 25.0 = No. of min./hr. of car wash noise @ 70 dBA
 60.0 = No. of seconds in one minute
 3600 = No. of seconds in one hour

At night the assumed number cars through the car wash is about one-half as worst-case day condition considered above so that the dryer noise time is 9.4 minutes and the car wash time is 12.5 minutes. The calculated one-hour Leq becomes 66.4 dBA LEQ for nighttime periods. In this way the one-hour Leqs were calculated to the north. Table 5 shows the calculated noise levels to the north and northwest.

As part of this analysis a separate evaluation was performed to calculate the worst-case noise impact at the property line of the closest adjacent residential lot as measured at a 90-degree angle of the entrance and exit sides of the proposed car wash. The projected noise level at the entrance side is **64.5 dBA CNEL** and **67.8 dBA CNEL** at the exit side. See Figure 4.

TABLE 5

Projected Car Wash/Dryer Noise Levels

Area	Area	Ref. Noise per Fig. 3	Angle deg.	Dist PL feet	Calc. Leq @PL	CNEL dBA	Night CNEL	STD CNEL
1	No. Entrance Side	78.7 @ 10'	90	10	62.1	64.5	61.5	65
2	NW Exit Side	81.8 @ 10'	90	10	65.4	67.8	64.8	65

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As indicated in Table 5 the projected dBA CNEL values in Table 5 above are greater than 65 dB at the exit side for residential and commercial areas, which exceeds the City of Culver City noise limit.

MITIGATION MEASURES

Because the potential noise levels at the North (No.) and Northwest (NW) residential areas are projected to be slightly higher than the allowable daytime criteria of 65 dBA CNEL, **acoustical shielding is needed in order to reduce these noise impacts to acceptable levels.**

Recommendations

The following measures will be incorporated into the self-serve carwash design to ensure the car wash/dryer noise levels will meet the property line criteria of the City of Culver City Noise Standards at the northern and northwestern project lines.

- 1) -The car wash can operate in the daytime periods (7 AM to 10:00 PM).
- 2) -At the northwest exit side there is an existing 18 foot high wall and an existing 6.2 foot high wall on the north side. These walls will shield the car wash impacts by 5 dB to 59.5 dB CNEL at the north and 62.8 dB CNEL at the northwest.

The project includes three vacuums which are located adjacent to the car wash parking stalls nearest Washington Place. These vacuum units are farther removed from the nearest residential property line than the actual car wash tunnel. See Figure 2. The shielded impacts are less than 65 dBA CNEL. The impact was determined by the following equation for a vacuum reference source of 86 dBA taken at 2 feet distance:

$$\text{Noise impact} = 20 \text{ Log } (2' / 30 \text{ feet} + 86 \text{ dB}) = 62.5 \text{ dB}$$

Area	Vacuum Impact	Wall Shielding	SHIELDED CNEL
No.	62.5 x 3 = 67.3	-5	62.3 dB

FINDINGS

With the recommendations described and the existing CMU block walls are acoustical shielding in this report the City of Culver City exterior noise standards per the City Noise Element will be satisfied.

TABLE 2

A-Weighted Leq Noise Level Data Collected During A Representative
Sample Period On May 9, 2013, Together With Calculated Hourly
Leq Values And Resulting CNEL Value.

Site 2

One Hour Period	Hourly Leq Data, (dBA)	Hourly Leq Weighting Factor	Adjusted Hourly Leq
0700	62.3	0.0	62.3
0800	60.4	0.0	60.4
0900	59.4	0.0	59.4
1000	59.3	0.0	59.3
1100	59.5 MEAS	0.0	59.5
1200	59.6	0.0	59.6
1300	59.7	0.0	59.7
1400	59.9	0.0	59.9
1500	61.1	0.0	61.1
1600	62.6	0.0	62.6
1700	62.3	0.0	62.3
1800	60.6	0.0	60.6
1900	59.2	0.0	59.2
2000	58.1	0.0	58.1
2100	57.4	0.0	57.4
2200	56.4	10.0	66.4
2300	55.8	10.0	65.8
0000	54.2	10.0	64.2
0100	51.8	10.0	61.8
0200	51.8	10.0	61.8
0300	50.6	10.0	60.6
0400	48.8	10.0	58.8
0500	49.8	10.0	59.8
0600	53.6	10.0	63.6

24 Adjusted Leq Values/
24 =

61.8 CNEL

TABLE 3

A-Weighted Leq Noise Level Data Collected During A Representative
Sample Period On May 9, 2013, Together With Calculated Hourly
Leq Values And Resulting CNEL Value.

Site 2

One Hour Period	Hourly Leq Data, (dBA)	Hourly Leq Weighting Factor	Adjusted Hourly Leq
0700	62.3	0.0	62.3
0800	60.4	0.0	60.4
0900	59.4	0.0	59.4
1000	59.3	0.0	59.3
1100	59.5 MEAS	0.0	59.5
1200	59.6	0.0	59.6
1300	59.7	0.0	59.7
1400	59.9	0.0	59.9
1500	61.1	0.0	61.1
1600	62.6	0.0	62.6
1700	62.3	0.0	62.3
1800	60.6	0.0	60.6
1900	59.2	0.0	59.2
2000	58.1	0.0	58.1
2100	57.4	0.0	57.4
2200	56.4	10.0	66.4
2300	55.8	10.0	65.8
0000	54.2	10.0	64.2
0100	51.8	10.0	61.8
0200	51.8	10.0	61.8
0300	50.6	10.0	60.6
0400	48.8	10.0	58.8
0500	49.8	10.0	59.8
0600	53.6	10.0	63.6

24 Adjusted Leq Values/
24 =

61.8 CNEL



FIGURE 2: Site Plan Showing Site Measurement Locations (Sites 1 and 2)

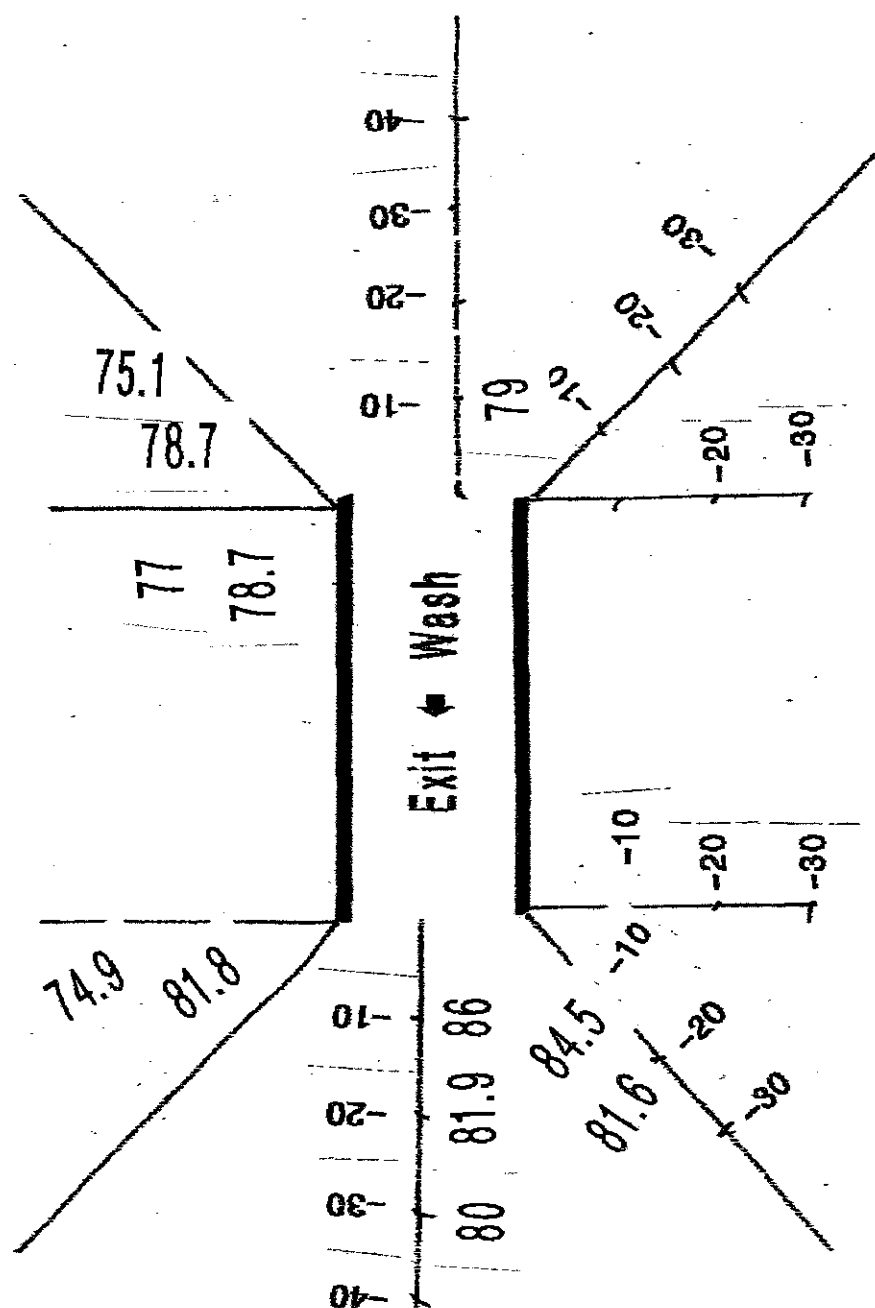


FIGURE 3: Measured Leq Values at Locations Around Same Type Car Wash

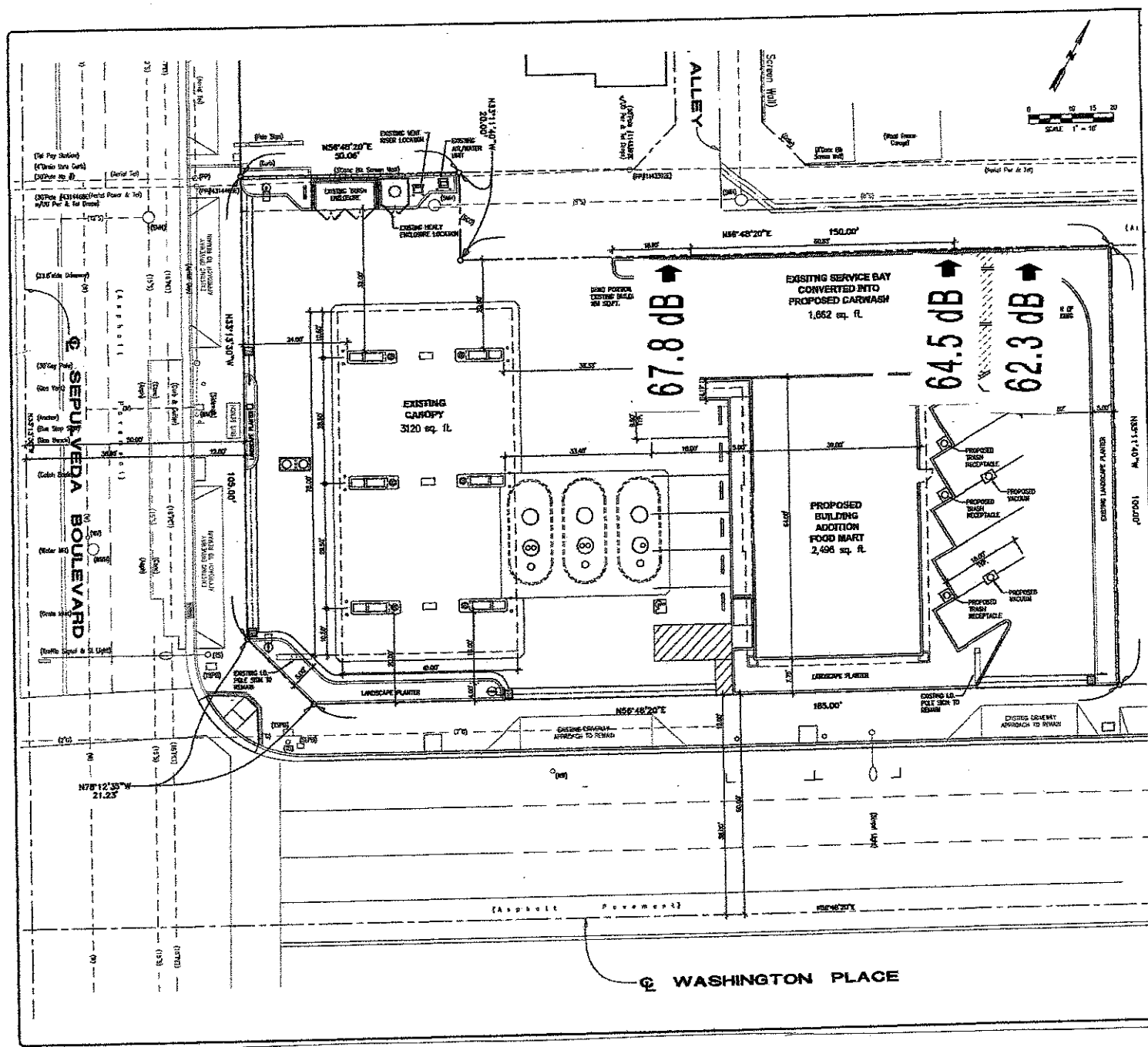


FIGURE 4: Site Plan Showing Unshielded Car Wash Noise Levels at the North, and Northeast Property Sides for Culver City Site

PROPOSED LAND USE CATEGORIES		DESIGN STANDARD CNEL	
CATEGORIES	USES	INTERIOR	EXTERIOR
RESIDENTIAL	Single Family, Duplex Multiple Family	45*	65
	Mobile Home	...	65*
	Hotel, Motel, Transient Lodging	45	65†
COMMERCIAL INDUSTRIAL INSTITUTIONAL	Commercial Retail, Bank Restaurant	55	...
	Office Building, Research and Development, Professional Offices, City Office Building	50	...
	Amphitheater, Concert Hall Auditorium, Meeting Hall	45	...
	Gymnasium (Multipurpose)	50	...
	Sports Club	55	...
	Manufacturing, Warehousing, Wholesale, Utilities	65	...
	Movie Theatres	45	...
	Hospital, Schools' Classroom	45	65
OPEN SPACE	Church, Library	45	...
	Parks	...	65

INTERPRETATION

INTERIOR NOISE ENVIRONMENT EXCLUDES:
Bathrooms, toilets, closets and corridors.

EXTERIOR NOISE ENVIRONMENT LIMITED TO:

- Private yards of single family homes
- Multi-family private patio or balcony which is greater than 6 feet in depth, and is not a required emergency fire exit as defined in the UBC.
- Mobile home parks
- Hospital patios
- Park's picnic area
- School's playground
- Hotel and motel recreation area

* Noise level requirement with closed windows. Mechanical ventilation system or other means of natural ventilation shall be provided as of Chapter 12, Section 1205 of the 1974 UBC.

* Exterior noise levels should be such that interior noise level will not exceed 45 dBA CNEL.

† Except those areas affected by aircraft noise.

... No applicable standard

TABLE N-3.
INTERIOR AND EXTERIOR NOISE STANDARDS

SOURCE: Mosira Greve Associates

Traffic Impact Study

For the

Proposed
Chevron Service Station Project
In the City of Culver City

Prepared for:
Travis Companies

July, 2013
Kimley-Horn and Associates, Inc.

**TRAFFIC IMPACT ANALYSIS
FOR THE PROPOSED
CHEVRON SERVICE STATION PROJECT
IN THE CITY OF CULVER CITY**

Prepared for:

Travis Companies

Prepared by:

Kimley-Horn and Associates, Inc.
765 The City Drive, Suite 200
Orange, CA 92868

July, 2013

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TRAFFIC IMPACT STUDY
FOR THE CHEVRON SERVICE STATION PROJECT
IN THE CITY OF CULVER CITY

INTRODUCTION

The purpose of this report is to address the traffic impacts associated with the proposed Chevron Service Station 9-2894 Project (the Chevron Service Station Project) at the northeast corner of Sepulveda Boulevard and Washington Place in the City of Culver City. The project site is located at 11197 Washington Place and is currently the site of an existing Chevron Service Station. The project applicant proposes to convert an existing metal service bay on the site into a drive-through car wash, and to add approximately 2,500 square feet to house a new convenience mart. The scope of the analysis in this report is in accordance with the Traffic Study Criteria for the Review of Proposed Development Projects Within the City of Culver City, and direction provided by City staff. The analysis will focus on the project's traffic-related impact at five local intersections during the morning and evening peak hours.

PROJECT DESCRIPTION

Existing Site

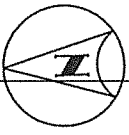
The project site is located at the northeast corner of the intersection of Sepulveda Boulevard and Washington Place in the City of Culver City, approximately one-tenth of a mile east of the San Diego (I-405) Freeway. A regional vicinity map is provided on **Figure 1**.

The existing gas station site currently has two full-movement driveways on Washington Place, and two full-movement driveways on Sepulveda Boulevard. Vehicles may enter or exit any of the driveways to and from any direction. The site also has direct access to an alley, which runs parallel to Washington Place between Sepulveda Boulevard and Bentley Avenue.

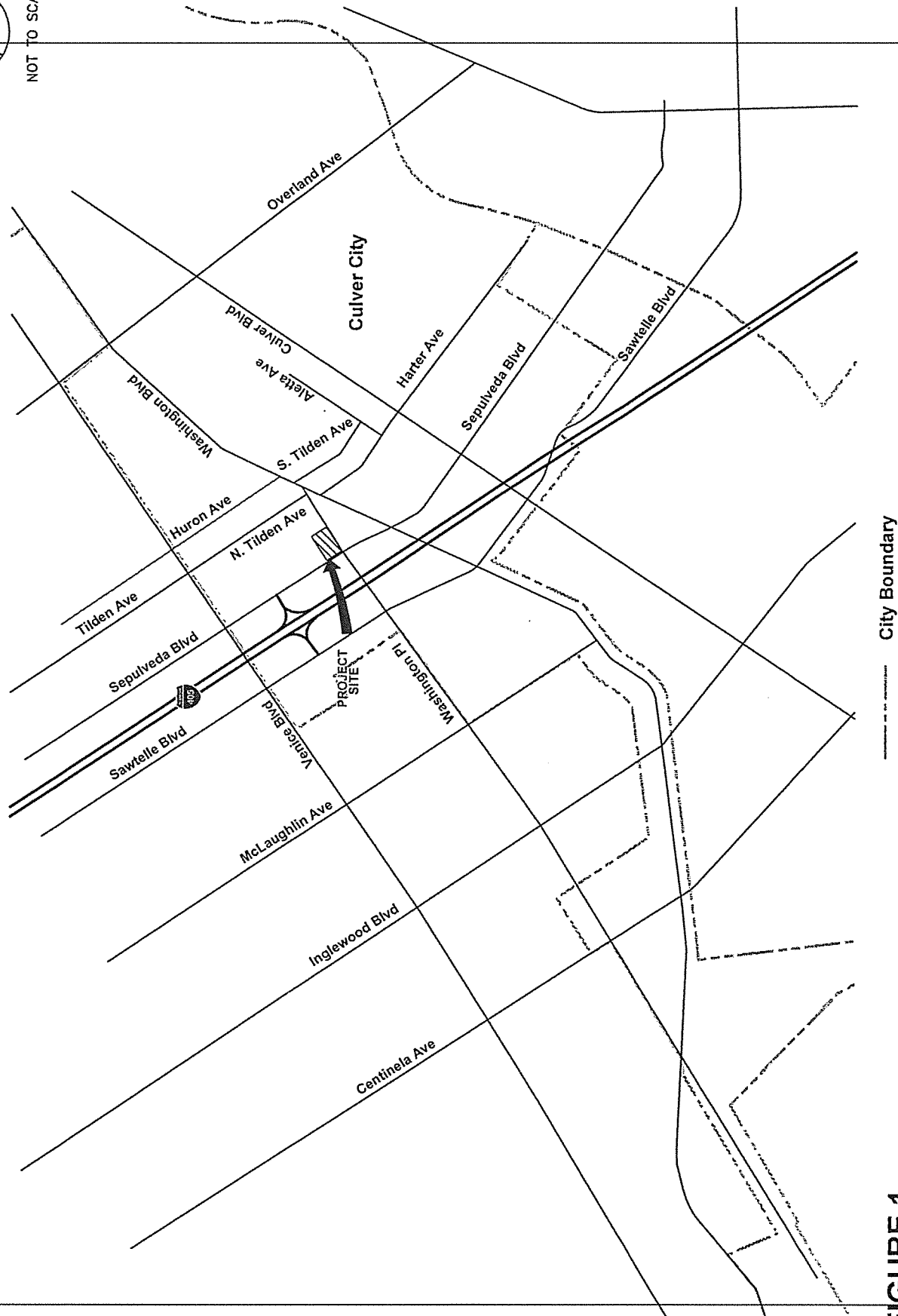
The site occupies 0.48 acre, and has six gas pumps (twelve fueling positions) under an open canopy, and a service bay building with a small food mart. A copy of the existing site plan is provided on **Figure 2**.

Proposed Site

The proposed project would convert the existing service building into a carwash, and to provide an approximately 2,500-square-foot building addition to house a new convenience mart. The parking lot would be reconfigured to provide 6 parking spaces, including one handicap accessible space, in front of the convenience mart; and 5 spaces behind the convenience mart building for car wash customers to vacuum and dry their cars. The easternmost driveway on Washington Place would be an exit-only driveway for car wash vehicles exiting the site. A copy of the proposed site plan is provided on **Figure 3**.

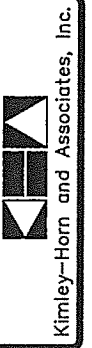


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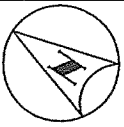
City Boundary

**FIGURE 1
REGIONAL VICINITY MAP**

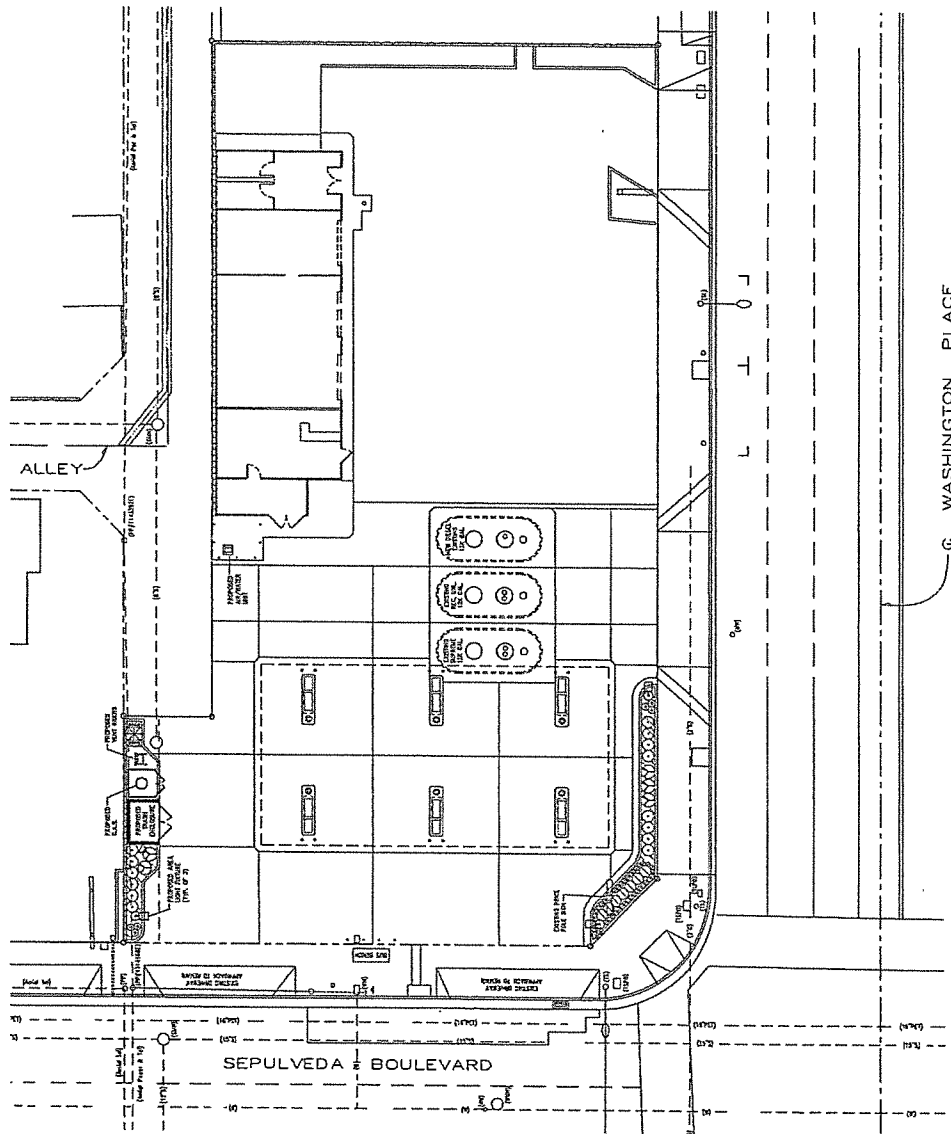


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FILENAME: Jul 16, 2013 - 1:40pm K:\ORA\PTO\ZSAC\Projects\Culver City Chevron\CADD\FIGURES2.dwg



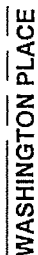
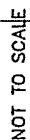
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**FIGURE 2
EXISTING SITE PLAN**



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ANALYSIS METHODOLOGY

This traffic study includes documentation of existing conditions, analyses of cumulative traffic conditions and identification of project-related impacts at the following study intersections:

1. Sepulveda Boulevard at I-405 northbound ramps
2. Sepulveda Boulevard at Washington Place
3. Sepulveda Boulevard at Washington Boulevard
4. Sawtelle Boulevard at Washington Place
5. Washington Boulevard at Washington Place

All study intersections are signalized. For each of the study intersections, the following analysis scenarios will be evaluated for the morning and evening peak hours:

- Existing Conditions (2013)
- Existing Plus Project
- Project Build-out Year (2014) Without Project
- Project Build-out Year (2014) With Project
- Project Build-out with Mitigation

Intersection Capacity Utilization (ICU) Methodology

Peak hour operating conditions at the study intersections were evaluated using the Intersection Capacity Utilization (ICU) methodology, in accordance with the City of Culver City and LA County Congestion Management Program (CMP) requirements. The ICU methodology provides a comparison of the theoretical hourly vehicular capacity of an intersection to the number of vehicles actually passing through that intersection during a given hour.

The ICU calculation assumes a per-lane capacity of 1,600 vehicles per hour (vph) for each travel lane (through or turning lane) through the intersection. For dual left-turn lanes, a capacity of 2,880 vehicles per hour is assumed. A clearance factor of 0.10 (10%) of the total intersection capacity is included in the ICU calculation to account for the loss time of the yellow traffic signal clearance periods. A separate “unofficial” unmarked right-turn lane is assumed where there is no separately striped right-turn lane, if the width of the outside through lane is 22 feet or more, parking is prohibited during the peak period, and the bus and pedestrian activity affecting the right turn is not significant.

The ICU calculation returns a volume-to-capacity (V/C) ratio that translates into a corresponding Level of Service (LOS) measure, ranging from LOS "A," representing uncongested, free-flowing conditions, to LOS "F," representing over-capacity conditions. A summary description of each Level of Service and the corresponding V/C ratio is provided on the following chart:

LEVEL OF SERVICE DESCRIPTIONS SIGNALIZED INTERSECTIONS		
Level of Service	V/C Ratio	Characteristics
A	0.600 or less	EXCELLENT – No vehicles wait longer than one red light and no approach phase is fully used.
B	0.601 - 0.700	VERY GOOD – An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701 - 0.800	GOOD – Occasionally drivers may have to wait through more than one red light; back-ups may develop behind turning vehicles.
D	0.801 - 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 back-ups.
E	0.901 - 1.000	POOR – Represents the most vehicles that the intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	1.001 or more	FAILURE – Back-ups 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: <u>Traffic Study Criteria for the Review of Proposed Development Projects Within the City of Culver City</u>		

Traffic Impact Criteria

Based on the City of Culver City Thresholds of Significance, a project's transportation impact at an intersection is considered to be significant if the project increases the V/C ratio beyond the thresholds shown in the chart below:

SIGNIFICANT IMPACT THRESHOLDS AT SIGNALIZED / STOP-CONTROLLED INTERSECTIONS		
Level of Service	V/C Ratio	Project-Related Increase in V/C Ratio
A	0.600 or less	No Significant Impact
B	0.601 - 0.700	No Significant Impact
C	0.701 - 0.800	Equal or greater than 0.05
D	0.801 - 0.900	Equal or greater than 0.04
E	0.901 - 1.000	Equal or greater than 0.02
F	1.001 or more	Equal or greater than 0.02

EXISTING CONDITIONS

Existing Roadway System

Regional access to the project site is provided by the I-405 Freeway, which is oriented in a north-south direction immediately west of the project site. Local access to the project is provided by several arterial and commuter roadways. A copy of the City of Culver City Roadway Classifications Map from the City's Circulation Element of the General Plan is provided on **Figure 4**.

Sepulveda Boulevard is a north-south Primary Artery that forms the west boundary of the project site. This roadway provides two travel lanes in each direction with a center stripe and left-turn pockets at intersections. The posted speed limit in the project vicinity is 35 mph. Parallel street parking is allowed along some segments of Sepulveda Boulevard.

Washington Place is an east-west Primary Artery that forms the south boundary of the project site. Washington Place connects at an angle with Washington Boulevard south of Centinela Avenue, and again just north of the site. Washington Place provides two travel lanes in each direction with a center two-way left-turn lane and left-turn pockets at intersections. The posted speed limit in the project vicinity is 35 mph. Parallel street parking is allowed along some segments of Washington Place.

Washington Boulevard is an east-west Primary Artery that connects with Washington Place just north of the project site. This roadway provides two travel lanes in each direction with a center two-way left-turn lane and left-turn pockets at intersections. The posted speed limit in the project vicinity is 35 mph. Parallel street parking is allowed along some segments of Washington Boulevard.

The intersection of Washington Boulevard at Washington Place is a complicated, skewed intersection with three additional approach legs (N. Tilden Avenue, S. Tilden Avenue, and Harter Avenue) and an interconnected signal operation connecting all three locations. This intersection was under construction at the time this traffic study was undertaken. The improvements will be complete by the time the proposed project is constructed. The project impact analysis for the intersection of Washington Boulevard at Washington Place will assume the post-construction intersection configuration that will be in place when the proposed project opens.

Existing Public Transit Service

Public transportation services for the project area are provided by the Culver CityBus municipal bus lines, Los Angeles County Metropolitan Transportation Authority (LACMTA), LADOT Commuter Express, and the Santa Monica Big Blue Bus system. A Culver CityBus bus stop with a bench and trash receptacle is located on the east side of Sepulveda Boulevard, immediately adjacent to the project site. The local bus lines serving the project area and bus stop locations are depicted on **Figure 5**.

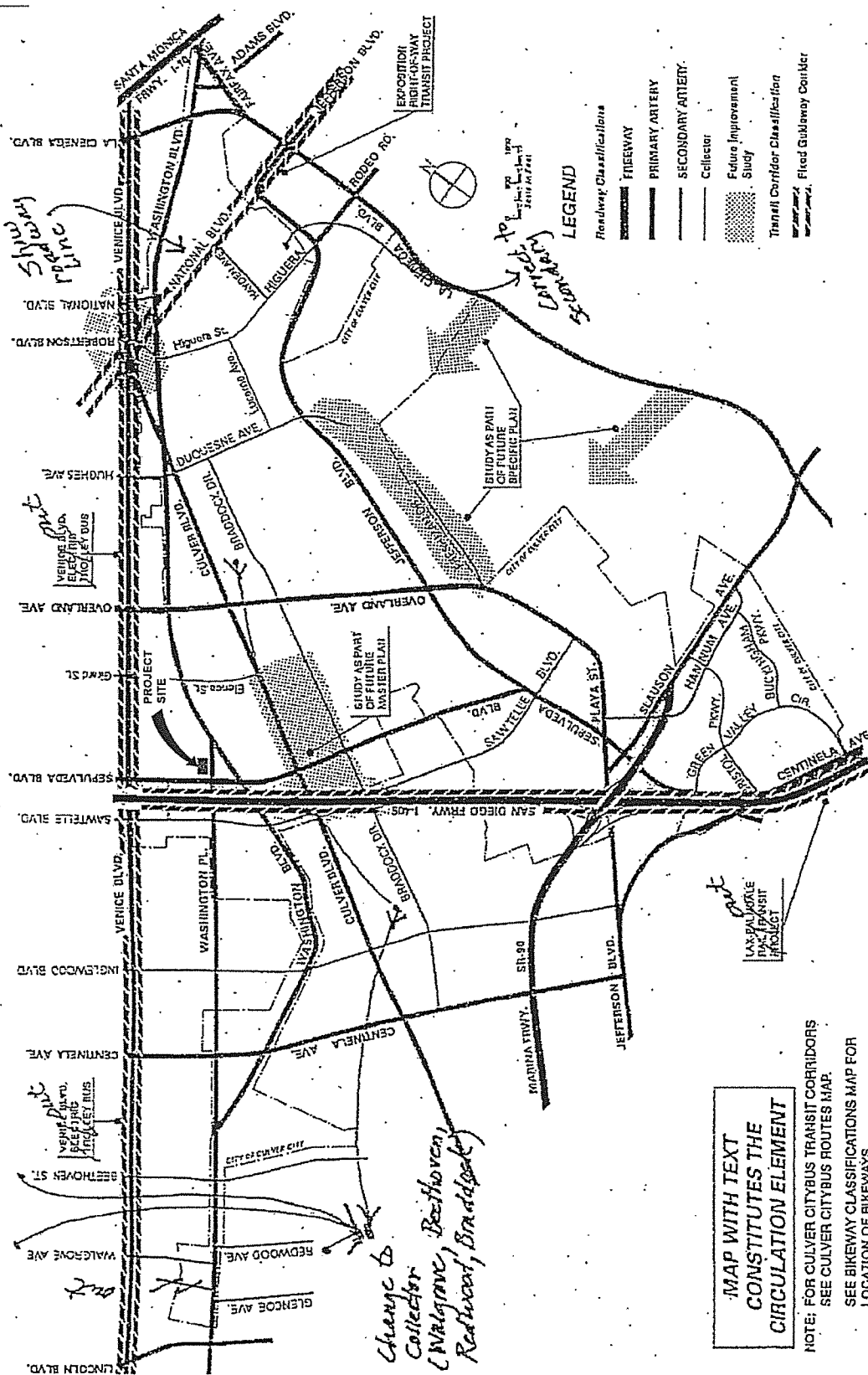


FIGURE 4
ROADWAY CLASSIFICATIONS MAP
 Source: Culver City Circulation Element

LEGEND:

○ = TRANSIT STOP

BUS ROUTES:

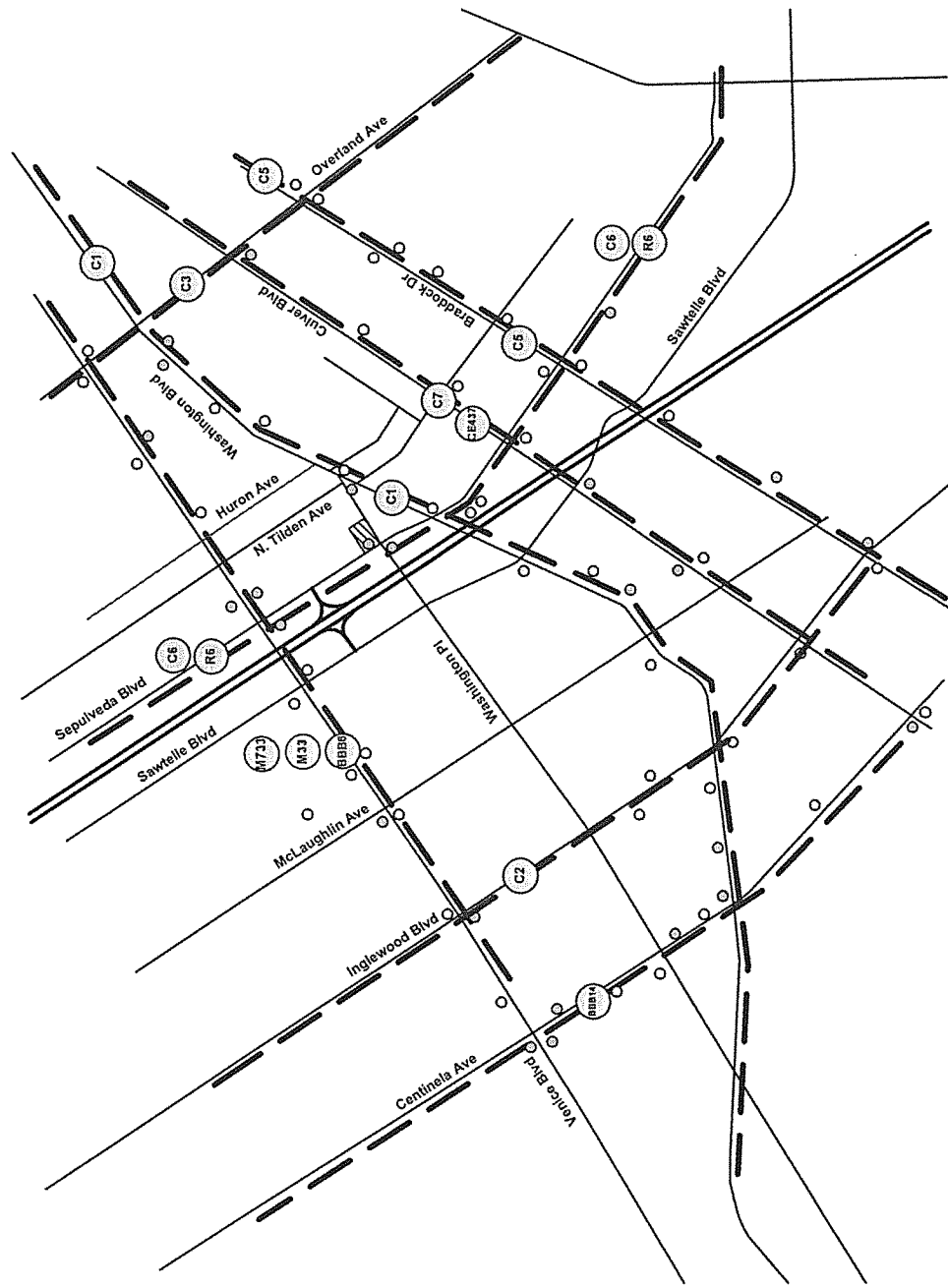
○ C = CULVER CITY BUS

○ M = METRO

○ R = CULVER CITY BUS RAPID

○ BBB = SANTA MONICA BIG BLUE BUS

○ CE = LADOT COMMUTER EXPRESS



**FIGURE 5
MUNICIPAL BUS ROUTES AND STOPS**

Existing Bicycle Facilities

Currently, there are no bicycle lanes provided on the streets abutting the project site. The Bikeway Classification Map in the City of Culver City General Plan indicates that Washington Place and Sepulveda Boulevard are proposed as Class III bike routes. A Class III bike route is an un-striped on-street bicycle route, designated with signage only. A copy of the Culver City Bikeway Classification Map is provided on **Figure 6**.

Existing Peak Hour Traffic Volumes

Existing lane configurations and traffic control at the study intersections are shown on **Figure 7**. At the time this study was undertaken, the intersection of Washington Boulevard at Washington Place was under construction. When the construction is complete, lane configurations will be slightly different, and certain movements will no longer be allowed. Specifically, the N. Tilden approach to the intersection will be restricted to right turns, and the northbound left turn from Washington Boulevard to N. Tilden will be eliminated. Both the pre-construction and post-construction lane configurations for this intersection are presented on **Figure 7**.

Existing morning and evening peak hour turning movement counts were collected for the study intersections in June, 2013. Counts were taken during the morning (7:00 to 9:00 AM) and evening (4:00 to 6:00 PM) peak periods, while the local schools were in session.

Because of the construction at the intersection of Washington Boulevard at Washington Place, the City provided peak hour counts for that intersection from 2010. These counts were grown at 1% per year to represent existing 2013 conditions. These volumes were then adjusted to reflect the post-construction changes in turn movements described above. Because of the potential for traffic diversion due to the construction, the City also provided 2010 counts for the intersection of Sepulveda Boulevard and Washington Place, with the direction to use the counts that represented the worst case condition. Based on this direction, the 2010 counts were used, and were grown at 1% per year to represent existing 2013 conditions. Existing peak hour traffic volumes are shown on **Figure 7**. Copies of the count data forms are provided in **Appendix A**.

Existing Peak Hour Operations

Existing peak hour intersection operations were evaluated using the ICU methodology described earlier. The results of the analysis are summarized on **Table 1**. For the intersection of Washington Boulevard at Washington Place, the peak hour results are presented as three intersection components, based on the signal phasing and overall operation of the intersection. The worst-case Level of Service is reported for the overall intersection operation.

Review of **Table 1** indicates that all study intersections are operating at LOS D or better in both peak hours. ICU intersection analysis worksheets are provided in **Appendix B**.

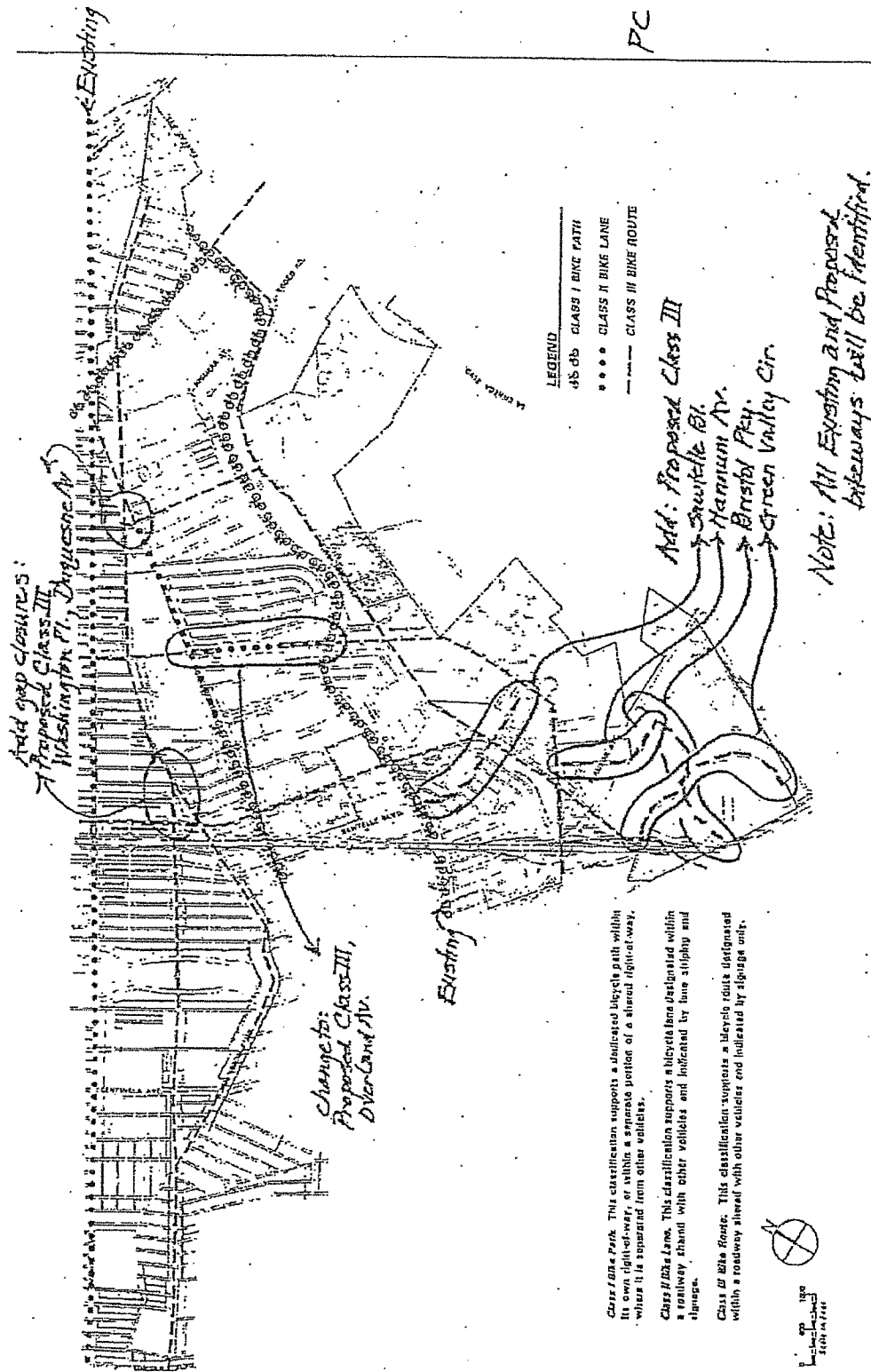
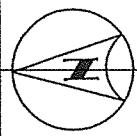
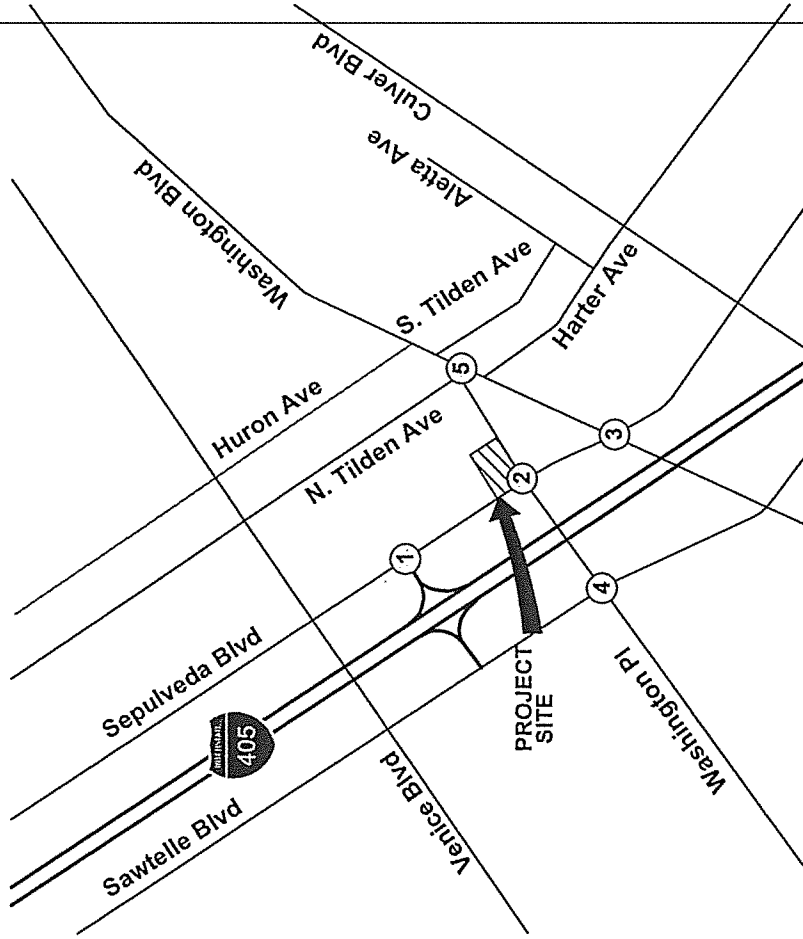


FIGURE 6
CULVER CITY BICYCLE CLASSIFICATION MAP
 Source: Culver City Circulation Element



NOT TO SCALE



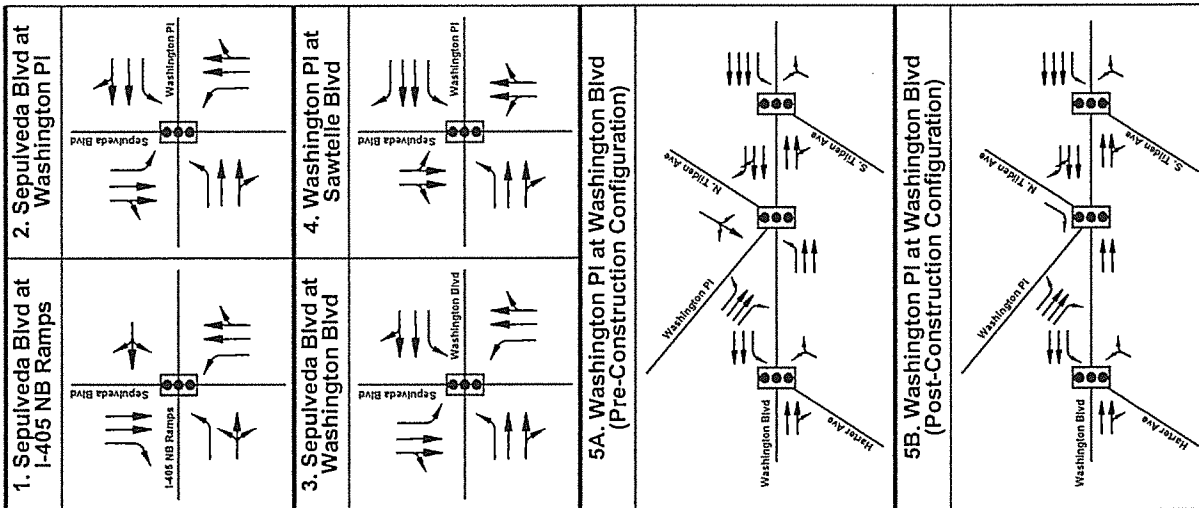
LEGEND

= Signal

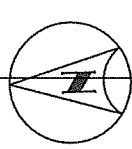
= Study Intersection



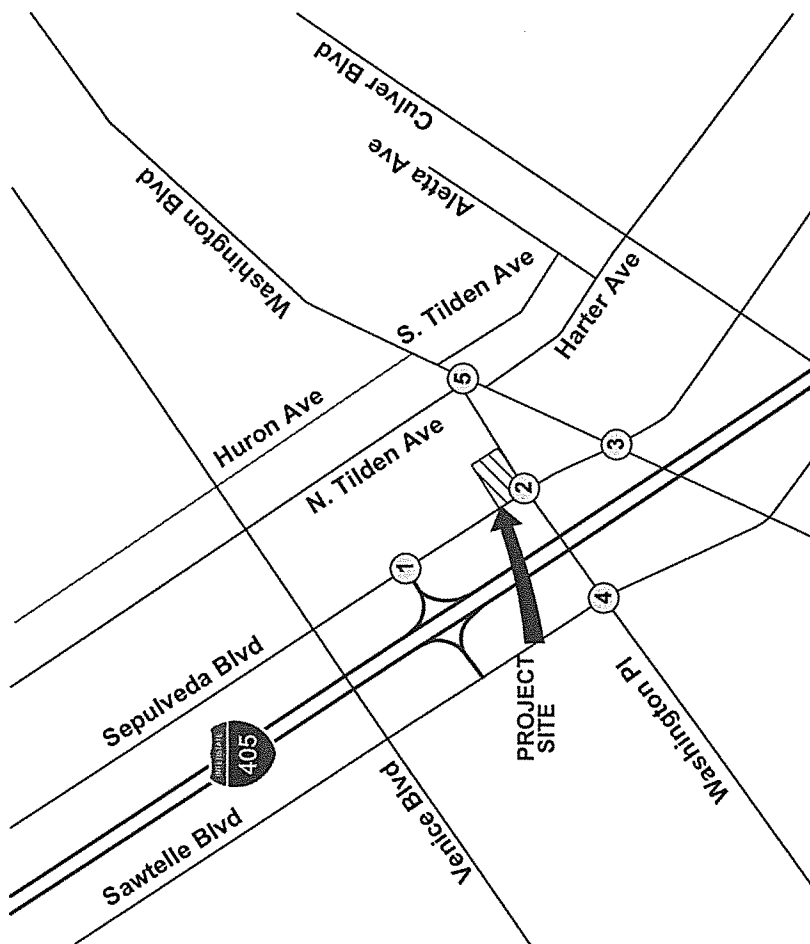
Kimley-Horn and Associates, Inc.



**FIGURE 7
EXISTING LANE CONFIGURATION AND TRAFFIC CONTROL**



NOT TO SCALE



LEGEND
 XX(YY) = AM(PM) Peak Hour
 Turning Movement
 Volumes
 (X) = Study Intersection



1. Sepulveda Blvd at I-405 NB Ramps		2. Sepulveda Blvd at Washington PI	
377(157) 455(1247) 0(1)	3(4) 2(1) 2(2)	105(224) 378(932) 40(82)	171(139) 461(544) 29(42)
474(750) 1(0) 55(93)	421(220) 1050(1145) 0(7)	187(180) 521(593) 68(123)	56(62) 1239(1067) 9(38)
3. Sepulveda Blvd at Washington Blvd		4. Washington PI at Sawtelle Blvd	
183(140) 748(714) 97(118)	121(100) 833(1035) 105(135)	77(75) 467(569) 73(135)	185(141) 471(627) 34(21)
367(1122) 101(134) 65(94)	357(1122) 101(134) 65(94)	127(232) 189(656) 45(64)	30(47) 568(524) 37(37)
5. Washington PI at Washington Blvd Pre-Construction Configuration		5. Washington PI at Washington Blvd Post-Construction Configuration	
615(702) 11(26)	14(10) 615(708)	552(733) 23(14)	44(23) 557(675)
18(10) 14(13)	1174(1367)	64(54)	1172(1379)
613(691) 568(739)	8(12)	613(691) 568(739)	8(12)
1174(1414) 5(8)	8(14)	1174(1414) 5(8)	8(14)

**FIGURE 8
 EXISTING PEAK HOUR TRAFFIC VOLUMES**

TABLE 1
CHEVRON SERVICE STATION
SUMMARY OF INTERSECTION OPERATIONS
EXISTING CONDITIONS

Intersection		AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1	Sepulveda Blvd at I-405 NB Ramps	0.769	C	0.895	D
2	Sepulveda Blvd at Washington Pl	0.829	D	0.823	D
3	Sepulveda Blvd at Washington Blvd	0.766	C	0.894	D
4	Washington Pl at Sawtelle Blvd	0.586	A	0.695	B
5	Washington Pl at Washington Blvd (Worst-Case)	0.520	A	0.626	B
	- Washington Blvd at Harter Ave	0.327	A	0.341	A
	- Washington Pl/Washington Blvd at Tilden Ave	0.520	A	0.626	B
	- Tilden Ave at Washington Blvd	0.485	A	0.553	A

Notes:

- The intersection of Washington Pl. at Washington Blvd. is comprised of three smaller interconnected intersections. The worst-case intersection is used to report the overall intersection LOS.

PROJECT TRAFFIC

Project Trip Generation

Trip generation estimates for the proposed project were derived from the Institute of Transportation Engineers (ITE) Trip Generation Manual, (9th Edition). Trip generation for the project is based on the additional trips that will be generated by the additional Convenience Mart square footage. ITE trip rates for Land Use Category 851 – Convenience Market was used for this project. Trip generation rates and the resulting trip generation estimates for the project are shown on **Table 2**.

In accordance with direction from City staff, a 10% internal capture reduction was taken to account for the interaction between the gas sales, car wash, and convenience market uses. A 25% pass-by assumption was taken to account for customer trips that will already be traveling on the street system, and will stop at the site as an interim stop on their way from one place to another. Based on these assumptions, the proposed Chevron Service Station project is estimated to generate 957 net new trips on a daily basis, with 88 new trips in the morning peak hour, and 68 new trips in the evening peak hour.

Project Trip Distribution and Assignment

Project trip distribution assumptions for the project site were developed, taking into account the proposed site layout, site access, the surrounding land uses, and the area roadway system. Trip distribution and assignment assumptions for the Chevron Station Project are shown on **Figure 9**. The resulting project trips at the study intersections are shown on **Figure 10**.

EXISTING PLUS PROJECT CONDITIONS

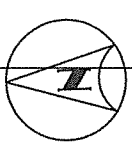
The Existing Plus Project analysis scenario is a hypothetical scenario that assumes completion of the project and full absorption of the project traffic on the surrounding street network at the current time. The Existing Plus Project scenario is required by the California Environmental Quality Act (CEQA). Project traffic was added to the Existing peak hour traffic volumes to develop Existing Plus Project traffic volumes. The resulting peak hour traffic volumes are shown on **Figure 11**.

Intersection Level of Service analysis was conducted for the morning and evening peak hours, and the results are shown on **Table 3**. As this table indicates, with the addition of project traffic, all study intersections would continue to operate at LOS D or better under Existing Plus Project Conditions.

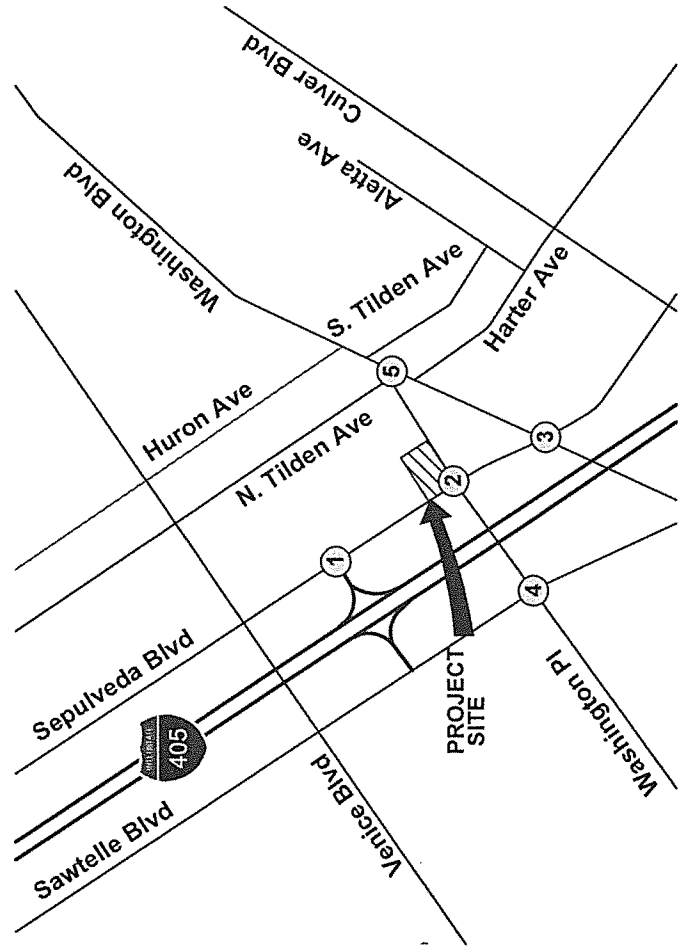
This table also provides the project impact at each study intersection, calculated as the change in V/C ratio as a result of the project traffic. In each case, the project impact would be below the significance thresholds established by the City of Culver City, and therefore would not be considered a significant impact at any study intersection. Copies of Existing Plus Project operating conditions intersection analysis worksheets are provided in **Appendix B**.

**TABLE 2
CHEVRON SERVICE STATION 9-2894
CITY OF CULVER CITY
SUMMARY OF PROJECT TRIP GENERATION**

Land Use	ITE Code	Unit	Qty.	Trip Generation Rates					Project Trip Generation				
				Daily	AM Peak		PM Peak		Daily	AM Peak		PM Peak	
					In	Out	In	Out		In	Out	In	Out
Existing Chevron Gasoline/Service Station with Convenience Market													
Convenience Market (24 Hours)	851	KSF	0.52	737.99	33.52	33.52	26.73	25.68	384	17	17	14	13
ITE Pass-By Reduction for Gas/Service Station w/ Convenience Market (25%)									-96	-4	-4	-4	-3
Existing Trips									288	13	13	10	10
Proposed Chevron Station Food Mart													
Convenience Market (24 Hours)	851	KSF	2.50	737.99	33.52	33.52	26.73	25.68	1,845	84	84	67	64
ITE Internal Capture Reduction for Gas, Car Wash, and Food Mart (10%)									-185	-8	-8	-7	-6
ITE Pass-By Reduction for Gas, Car Wash, and Food Mart (25%)									-415	-19	-19	-15	-15
New Trips									1,245	57	57	45	43
Net New Trips									957	44	44	35	33



NOT TO SCALE



1. Sepulveda Blvd at I-405 NB Ramps	25% IN 25% OUT	25% IN 25% OUT	25% IN 25% OUT
2. Sepulveda Blvd at Washington PI	10% OUT 25% IN	25% IN 25% OUT	25% IN 25% OUT
3. Sepulveda Blvd at Washington Blvd	25% IN 25% OUT	25% IN 25% OUT	25% IN 25% OUT
4. Washington PI at Sawtelle Blvd	25% IN 25% OUT	25% IN 25% OUT	25% IN 25% OUT
5. Washington PI at Washington Blvd	25% IN 25% OUT	25% IN 25% OUT	25% IN 25% OUT

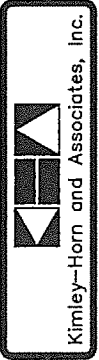
6. Sepulveda Blvd at North Driveway	15% IN 10% OUT	15% IN 10% OUT
7. Sepulveda Blvd at South Driveway	10% IN 10% OUT	10% IN 10% OUT
8. Washington PI at West Driveway	15% IN 25% OUT	15% IN 25% OUT
9. Washington PI at East Driveway	10% IN 25% OUT	10% IN 25% OUT

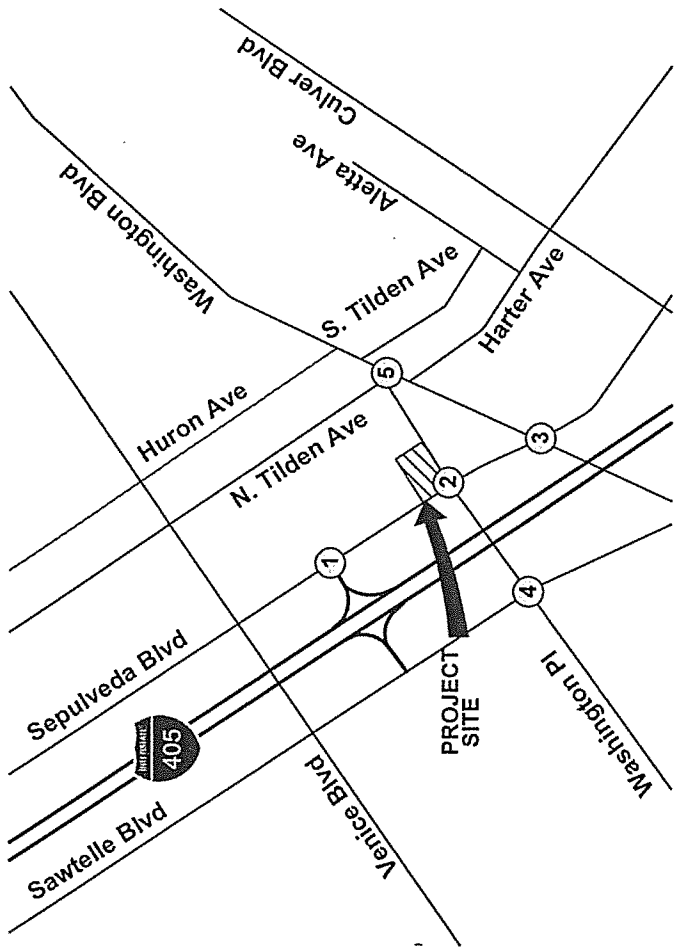
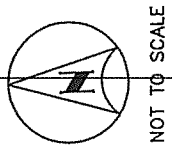
LEGEND

XX% = Trip Distribution Percentage

(X) = Study Intersection

FIGURE 9
PROJECT TRIP DISTRIBUTION





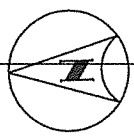
1. Sepulveda Blvd at I-405 NB Ramps	2. Sepulveda Blvd at Washington Pl		
11(9) →	← 11(9)	← 11(9) ← 7(5)	← 11(9) ← 7(5)
	← 11(9)	11(9) →	
3. Sepulveda Blvd at Washington Blvd	4. Washington Pl at Sawtelle Blvd		
← 11(9)	← 11(9)	← 11(9)	← 11(9)
	11(9) →	11(9) →	
5. Washington Pl at Washington Blvd			
Washington Blvd	Washington Pl	N. Tilden Ave	S. Tilden Ave
	11(9) →	← 11(9)	← 11(9)
		11(9) →	

6. Sepulveda Blvd at North Driveway	7. Sepulveda Blvd at South Driveway	8. Washington Pl at West Driveway	9. Washington Pl at East Driveway
← 7(5) ← 4(3)	← 4(3)	← 7(5)	← 11(9) ← 11(9)
11(9) → 11(9) →	11(9) → 11(9) →		

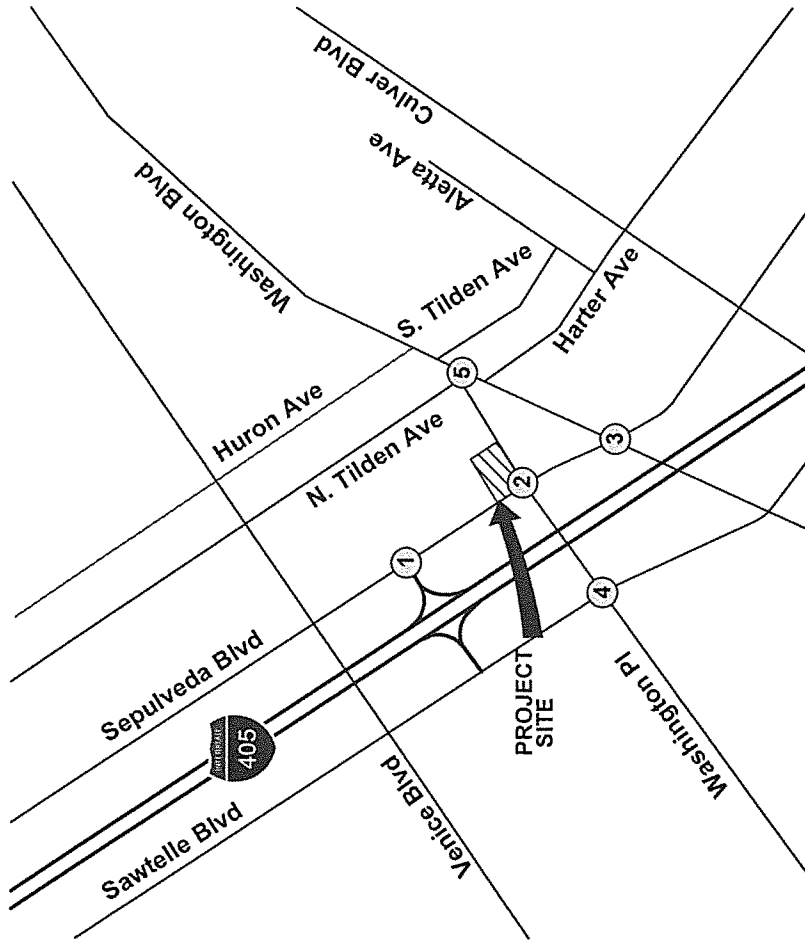
LEGEND
 XX/YY = AM/PM Peak Hour Turning Movement Volumes
 (X) = Study Intersection

FIGURE 10
PROJECT-RELATED PEAK HOUR TRAFFIC VOLUMES





NOT TO SCALE



LEGEND
 XX(YY) = AM(PM) Peak Hour Turning Movement Volumes
 (X) = Study Intersection



1. Sepulveda Blvd at I-405 NB Ramps	3(4) 2(1) 2(2) 0(1) 466(1256) 377(157) 421(220) 1061(1148) 55(93) 474(750) 110 55(93)	171(139) 472(552) 36(47) 105(224) 382(935) 40(82)	198(189) 521(593) 68(123) 56(62) 1250(1076) 9(38) 56(62) 1250(1076) 9(38)
2. Sepulveda Blvd at Washington PI	185(141) 482(635) 34(21) 127(232) 189(656) 45(64)	179(115) 566(593) 80(108) 30(47) 568(534) 37(37)	183(140) 748(714) 97(118) 121(100) 844(1044) 108(135)
3. Sepulveda Blvd at Washington Blvd	77(75) 467(569) 73(135) 101(134) 378(1130) 65(94)	185(141) 482(635) 34(21) 127(232) 189(656) 45(64)	179(115) 566(593) 80(108) 30(47) 568(534) 37(37)
4. Washington PI at Sawtelle Blvd	185(141) 482(635) 34(21) 127(232) 189(656) 45(64)	179(115) 566(593) 80(108) 30(47) 568(534) 37(37)	183(140) 748(714) 97(118) 121(100) 844(1044) 108(135)
5. Washington PI at Washington Blvd Post-Construction Configuration	185(141) 482(635) 34(21) 127(232) 189(656) 45(64)	179(115) 566(593) 80(108) 30(47) 568(534) 37(37)	183(140) 748(714) 97(118) 121(100) 844(1044) 108(135)

FIGURE 11
EXISTING PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES

TABLE 3

CHEVRON SERVICE STATION

SUMMARY OF INTERSECTION OPERATIONS

EXISTING PLUS PROJECT

		Without Project				With Project				Project Impact			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change		Significant ?	
		ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	AM	PM	AM	PM
1	Sepulveda Blvd at I-405 NB Ramps	0.769	C	0.895	D	0.769	C	0.898	D	0.000	0.003	No	No
2	Sepulveda Blvd at Washington Pl	0.829	D	0.823	D	0.843	D	0.833	D	0.014	0.010	No	No
3	Sepulveda Blvd at Washington Blvd	0.766	C	0.894	D	0.769	C	0.897	D	0.003	0.003	No	No
4	Washington Pl at Sawtelle Blvd	0.586	A	0.695	B	0.589	A	0.697	B	0.003	0.002	No	No
5	Washington Pl at Washington Blvd (Worst-Case)	0.520	A	0.626	B	0.525	A	0.629	B	0.005	0.003	No	No
	- Washington Blvd at Harter Ave	0.327	A	0.341	A	0.327	A	0.341	A	0.000	0.000	No	No
	- Washington Pl/Washington Blvd at Tilden Ave	0.520	A	0.626	B	0.525	A	0.629	B	0.005	0.003	No	No
	- Tilden Ave at Washington Blvd	0.485	A	0.553	A	0.488	A	0.555	A	0.003	0.002	No	No

Notes:

- The intersection of Washington Pl. at Washington Blvd. is comprised of three smaller interconnected intersections. The worst-case intersection is used to report the overall intersection LOS.

FUTURE TRAFFIC FORECASTS

Ambient Growth

The anticipated Build-out year for the project is Year 2014. Based on the City of Culver City Traffic Study Criteria, an annual growth rate of 1% per year is applied to develop Build-out Year base traffic forecasts.

Cumulative Projects Traffic

Information about Cumulative Projects (approved and pending projects) in the Cities of Culver City and Los Angeles was obtained from each city's Planning Department. Twenty-nine Cumulative Projects in the vicinity of the project site were identified; 25 in Culver City, and 4 in the City of Los Angeles. The Cumulative Projects are listed on **Table 4** along with each project's location, approved/proposed land use, and estimated peak hour trips. The Cumulative Projects' locations are shown graphically on **Figure 12**. Cumulative Project peak hour traffic volumes at each of the study intersections are shown on **Figure 13**.

FUTURE TRAFFIC CONDITIONS

Project Build-out Year 2014 Conditions Without the Proposed Project

The ambient growth rate and Cumulative Project traffic volumes were added to existing traffic volumes to develop the Project Build-out Conditions Without Project traffic volume forecasts for the Year 2014. The resulting forecast volumes without the proposed project are shown on **Figure 14**. Each intersection was re-analyzed with these traffic volumes, and the results are shown on **Table 5**. Review of this table indicates that the following are projected to worsen to LOS E conditions in one or both peak hours:

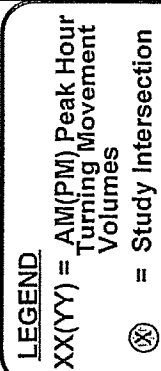
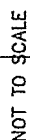
- Sepulveda Boulevard at I-405 Northbound Ramps: LOS E – PM peak
- Sepulveda Boulevard at Washington Place: LOS E – PM peak
- Sepulveda Boulevard at Washington Boulevard: LOS E – PM peak

Copies of the ICU worksheets are provided in **Appendix B**.

**TABLE 4
SUMMARY OF CUMULATIVE PROJECTS**

Project No.	Project Address	Approved / Proposed Use	AM Peak Hour		PM Peak Hour	
			In	Out	In	Out
City of Culver City						
1	4014 Van Buren Place	Four-unit Condominium	0	1	1	1
2	4043 Irving Place	26 residential units and 1,403 SF of office space	4	9	9	6
3	9901 Washington Boulevard	131 residential units, 12,178 SF retail	17	52	68	45
4	11167 Washington Place	Construct vehicle repair shop with 1,196 SF repair area, two service bays, and 191 SF of office	2	1	2	2
5	9920 Jefferson Boulevard	Add 20,474 of office space to existing building	28	4	5	25
6	4436 Sepulveda Boulevard	Construct 2,500 SF convenience store	39	39	42	44
7	12095-12101 Washington Boulevard	Additional 200 students to private school, convert 20,090 SF of office to school use	36	16	40	5
8	11012 - 11014 Washington Boulevard	Construct commercial building totaling 3,385 SF	5	1	1	4
9	11042-11056 Tilden Avenue	Construct mixed-use development with 10,400 SF of retail and 33 residential units	8	16	30	26
10	10638 Culver Boulevard	Construct gas station with convenience store totaling 2,500 SF	105	101	122	122
11	12714-12718 Washington Boulevard	Construct 5 unit mixed-use and 3,300 SF ground retail	2	3	8	7
12	4139-4145 Duquesne Avenue	Construct 7 Condominium units	1	3	2	1
13	11281 Washington Place	Construct 6,294 SF retail center	4	2	11	12
14	5450 Sepulveda Boulevard	Construct 14,800 SF commercial/retail building	9	5	26	29
15	9919 Jefferson Boulevard	Construct 91,660 SF office building with tandem parking	126	17	23	113
16	11215 Washington Boulevard	Construct 5,492 SF addition to Mazda Dealership	8	3	6	9
17	12201 Washington Place	Addition of 100 Students to existing private school consisting of 300 students	49	32	7	10
18	11957 Washington Boulevard	Construct 30-unit mixed-use with 8,682 SF of retail	7	14	25	22
19	12712-12718 Washington Boulevard	New 4-story mixed-use building with 5 units, 3,414 SF of retail, 11,516 SF of residential	2	3	8	8
20	4058 Madison Avenue	Construct four-unit condominium	0	1	1	1
21	3846 Bentley Avenue	Construct four-unit condominium	0	1	1	1
22	4044-4068 Globe Avenue	Planned development for five 2-unit residential units (10 total DU)	1	4	3	2
23	SE corner of Washington Boulevard and Inglewood Boulevard	Mixed-use project with 92 residential units and 15,000 SF commercial retail	16	39	59	45
24	12403 Washington Boulevard	31,500 SF market hall and Trader Joes with retail and restaurant	19	11	56	61
25	9814 Washington Boulevard	200 Seat Performance Theatre with museum and café totaling 7,500 SF	3	3	28	19
City of Culver City Sub-Total			491	381	584	620
City of Los Angeles						
26	3425 Motor Avenue	Construct 115 apartments and 975 SF retail, removal of existing residential and office	9	36	31	16
27	10601 Washington Boulevard	Construct 132 apartments, 26,000 SF office, 18,000 SF retail. Remove existing office	82	68	103	149
28	3115 S Sepulveda Boulevard	Construct 28,000 SF specialty retail and 138 DU Condominium	30	63	81	66
29	11350 W Palms Blvd	75 Student increase at Windward School	8	1	6	3
City of Los Angeles Sub-Total			129	168	221	234
TOTAL			620	549	805	854

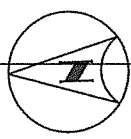




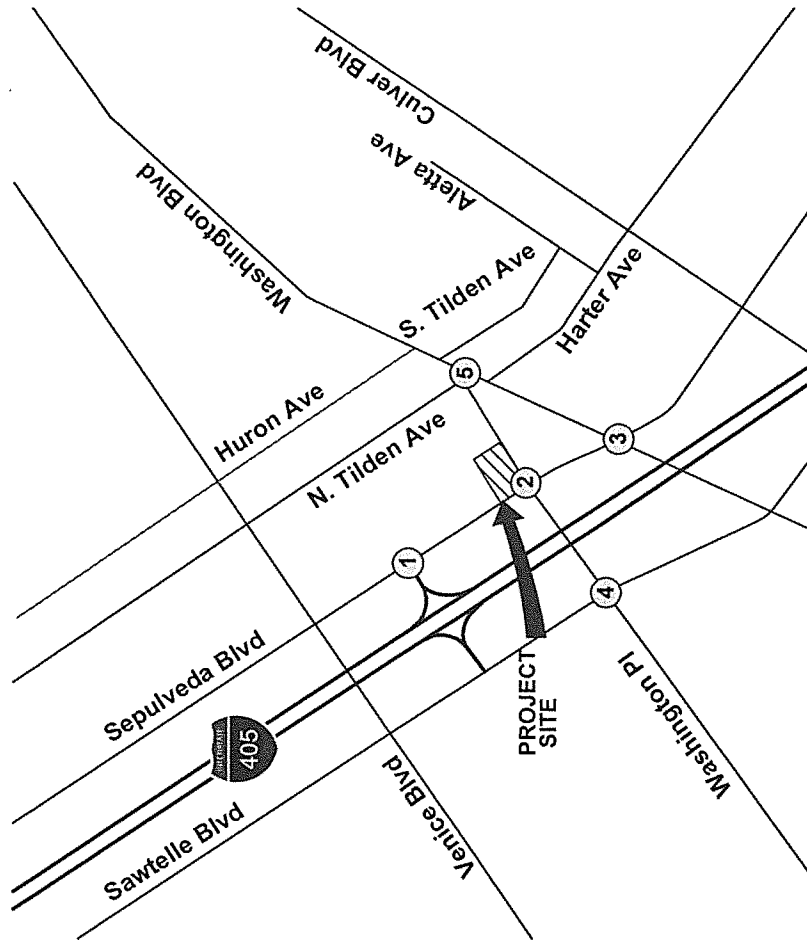
Kimley-Horn and Associates, Inc.

1. Sepulveda Blvd at I-405 NB Ramps	← 49(60)	↑ 5(10) 35(69)	← 13(24) 25(43) 39(40)	← 27(36) 19(18) 2(3)	← 54(89) 7(7)
2. Sepulveda Blvd at Washington PI	← 18(36) 26(49)	↑ 11(20) 44(43) 12(16)	← 4(85) 41(76)	← 55(60)	← 54(89) 7(7)
3. Sepulveda Blvd at Washington Blvd	← 49(60)	↑ 5(10) 35(69)	← 13(24) 25(43) 39(40)	← 27(36) 19(18) 2(3)	← 54(89) 7(7)
4. Washington PI at Sawtelle Blvd	← 18(36) 26(49)	↑ 11(20) 44(43) 12(16)	← 4(85) 41(76)	← 55(60)	← 54(89) 7(7)
5. Washington PI at Washington Blvd	← 18(36) 26(49)	↑ 11(20) 44(43) 12(16)	← 4(85) 41(76)	← 55(60)	← 54(89) 7(7)
Washington Blvd	← 55(58)	← 41(76)	← 52(55)	← 55(58)	← 55(58)
Washington Blvd	← 55(58)	← 41(76)	← 52(55)	← 55(58)	← 55(58)

**FIGURE 13
CUMULATIVE PROJECT PEAK HOUR TRAFFIC VOLUMES**



NOT TO SCALE



LEGEND

XX(YY) = AM(PM) Peak Hour
Turning Movement
Volumes

⊗ = Study Intersection



Kimley-Horn and Associates, Inc.

1. Sepulveda Blvd at I-405 NB Ramps		2. Sepulveda Blvd at Washington PI	
← 381(159) ← 509(1319) ← 0(1)	← 3(4) ← 2(1) ← 2(2)	← 121(246) ← 408(972) ← 48(93)	← 191(176) ← 492(598) ← 29(42)
← 479(758) ← 1(0) ← 56(94)	← 430(232) ← 1096(1221) ← 0(7)	← 200(202) ← 570(642) ← 81(140)	← 70(83) ← 9(38) ← 1263(1101)
3. Sepulveda Blvd at Washington Blvd		4. Washington PI at Sawtelle Blvd	
← 66(95) ← 398(1169) ← 102(135)	← 78(76) ← 485(599) ← 102(188)	← 128(234) ← 191(663) ← 52(72)	← 187(142) ← 530(722) ← 34(21)
← 185(141) ← 774(739) ← 100(122)	← 124(105) ← 866(1088) ← 145(176)	← 181(116) ← 616(650) ← 81(109)	← 30(47) ← 574(539) ← 37(37)
5. Washington PI at Washington Blvd			
← 679(767) ← 11(28)	← 599(816) ← 23(14)	← 65(54)	← 663(783) ← 616(822)
← 18(15) ← 14(15)	← 683(783)	← 1302(1504) ← 6(7)	← 8(12) ← 8(14)
← 1271(1589) ← 5(8)	← 1271(1589) ← 5(8)	← 1271(1589) ← 5(8)	← 1271(1589) ← 5(8)

FIGURE 14
PROJECT BUILD-OUT YEAR 2014 WITHOUT PROJECT
PEAK HOUR TRAFFIC VOLUMES

TABLE 5
CHEVRON SERVICE STATION
SUMMARY OF INTERSECTION OPERATIONS
PROJECT BUILD-OUT YEAR 2014 CONDITIONS

		Without Project						With Project						Project Impact			
		AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour			Change		Significant ?	
		ICU	LOS		ICU	LOS		ICU	LOS		ICU	LOS		AM	PM	AM	PM
1	Sepulveda Blvd at I-405 NB Ramps	0.779	C		0.928	E		0.779	C		0.931	E		0.000	0.003	No	No
2	Sepulveda Blvd at Washington Pl	0.866	D		0.901	E		0.880	D		0.910	E		0.014	0.009	No	No
3	Sepulveda Blvd at Washington Blvd	0.817	D		0.967	E		0.820	D		0.969	E		0.003	0.002	No	No
4	Washington Pl at Sawtelle Blvd	0.612	B		0.731	C		0.615	B		0.733	C		0.003	0.002	No	No
5	Washington Pl at Washington Blvd (Worst-Case)	0.561	A		0.685	B		0.566	A		0.689	B		0.005	0.004	No	No
	- Washington Blvd at Harter Ave	0.327	A		0.368	A		0.327	A		0.368	A		0.000	0.000	No	No
	- Washington Pl/Washington Blvd at Tilden Ave	0.561	A		0.685	B		0.566	A		0.689	B		0.005	0.004	No	No
	- Tilden Ave at Washington Blvd	0.527	A		0.594	A		0.531	A		0.596	A		0.004	0.002	No	No

Notes:

- The intersection of Washington Pl. at Washington Blvd. is comprised of three smaller interconnected intersections. The worst-case intersection is used to report the overall intersection LOS.

Project Build-out Year 2014 with Proposed Project

Project traffic was added to Project Build-out Without Project traffic volumes (Existing plus Ambient Growth plus Cumulative Projects) to analyze Project Build-out With Project Conditions at the study intersections. The resulting traffic volumes are illustrated on **Figure 15**. The results of the Project Build-out Year 2014 With Project analysis are summarized on Table 5 (previously presented). Copies of the ICU worksheets are provided in the **Appendix B** to this report.

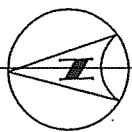
Review of this table indicates that the same intersections that were forecasted to operate at LOS E in the Without Project conditions are forecasted to continue to operate at LOS E.

- Sepulveda Boulevard at I-405 Northbound Ramps: LOS E – PM peak
- Sepulveda Boulevard at Washington Place: LOS E – PM peak
- Sepulveda Boulevard at Washington Boulevard: LOS E – PM peak

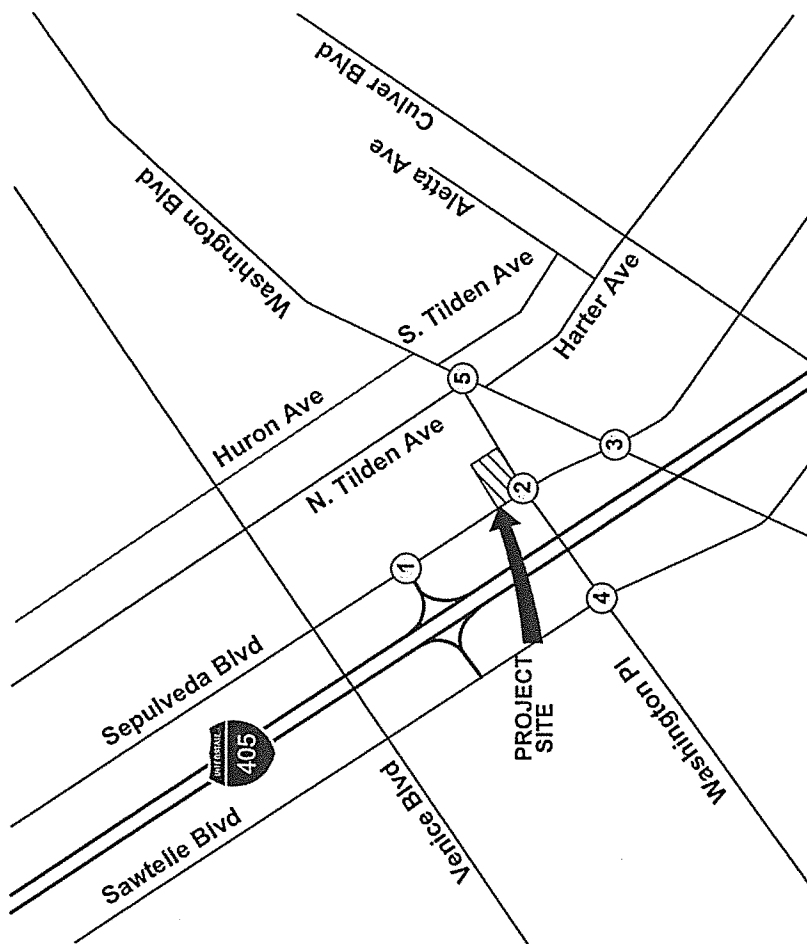
This table also indicates that the project impact at each study intersection, would be below the significance thresholds established by the City of Culver City, and therefore would not be considered a significant impact at any study intersection.

Mitigation Measures

This Traffic Impact Study has been prepared in accordance with the Traffic Study Criteria for the Review of Proposed Development Projects within the City of Culver City. The analysis has demonstrated that the proposed Chevron Service Station Project will not create a significant impact at any study intersection. No traffic-related mitigation measures would be required of the project.



NOT TO SCALE



LEGEND

XX(YY) = AM(PM) Peak Hour
Turning Movement
Volumes

⊗ = Study Intersection



Kimley-Horn and Associates, Inc.

1. Sepulveda Blvd at I-405 NB Ramps	2. Sepulveda Blvd at Washington PI
3. Sepulveda Blvd at Washington Blvd	4. Washington PI at Sawtelle Blvd
5. Washington PI at Washington Blvd	Washington PI

FIGURE 15
PROJECT BUILD-OUT YEAR 2014 WITH PROJECT
PEAK HOUR TRAFFIC VOLUMES

EXECUTIVE SUMMARY

- The proposed Chevron Service Station Project site is located at the northeast corner of Sepulveda Boulevard and Washington Place in the City of Culver City. The project address is 11197 Washington Place.
- The Chevron Service Station Project proposes to renovate the existing service bay building to convert it into a car wash, and to provide an additional approximately 2,500-square-foot building to house a new convenience mart.
- The proposed project will take access to the local roadway system via two existing driveways on Sepulveda Boulevard and two existing driveways on Washington Place. The project site also has direct access onto an alley that runs along the north side of the property.
- Five study intersections in the project vicinity have been evaluated for potential project traffic impacts.
- The intersection of Washington Boulevard at Washington Place was under construction at the time this traffic study was undertaken. The improvements will be complete by the time the proposed project is constructed. The project impact analysis for the intersection of Washington Boulevard at Washington Place will assume the post-construction intersection configuration that will be in place when the proposed project opens.
- The project is estimated to generate a net total of 957 daily trips, with 88 trips in the morning peak hour, and 68 trips in the evening peak hour.
- The project traffic-related impacts were analyzed in accordance with the Traffic Study Criteria for the Review of Proposed Development Projects within the City of Culver City, and direction provided by City staff.
- Based on the City's adopted impact significance thresholds, this study found that the proposed Chevron Service Station Project would not cause a significant traffic impact at any study intersections. No traffic-related mitigation would be required for the project.

APPENDIX A

TRAFFIC COUNT DATA SHEETS

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: CA13_5344_001

Day: THURSDAY

City: City of Culver City

Date: 6/20/2013

AM													
NS/EW Streets:	Sepulveda Blvd			Sepulveda Blvd			I-405 NB Ramps			I-405 NB Ramps			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 0	ST 2	SR 1	EL 1.5	ET 0	ER 0.5	WL 0	WT 0	WR 0	TOTAL
7:00 AM	90	274	0	1	52	74	85	0	15	0	0	0	591
7:15 AM	106	292	0	0	75	83	89	0	8	0	1	0	654
7:30 AM	107	290	0	0	107	93	92	0	10	0	0	2	701
7:45 AM	112	228	2	0	110	92	99	0	9	0	0	1	653
8:00 AM	99	277	0	0	106	78	107	1	12	1	1	1	683
8:15 AM	116	248	0	0	120	114	111	0	11	0	0	1	721
8:30 AM	120	284	0	0	119	96	111	0	12	0	1	0	743
8:45 AM	86	241	0	0	110	89	145	0	20	1	0	1	693
TOTAL VOLUMES :	836	2134	2	1	799	719	839	1	97	2	3	6	5439
APPROACH %'s :	28.13%	71.80%	0.07%	0.07%	52.60%	47.33%	89.54%	0.11%	10.35%	18.18%	27.27%	54.55%	
PEAK HR START TIME :	800 AM												TOTAL
PEAK HR VOL :	421	1050	0	0	455	377	474	1	55	2	2	3	2840
PEAK HR FACTOR :	0.910			0.889			0.803			0.583			0.956

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: CA13_5344_001

Day: THURSDAY

City: City of Culver City

Date: 6/20/2013

PM

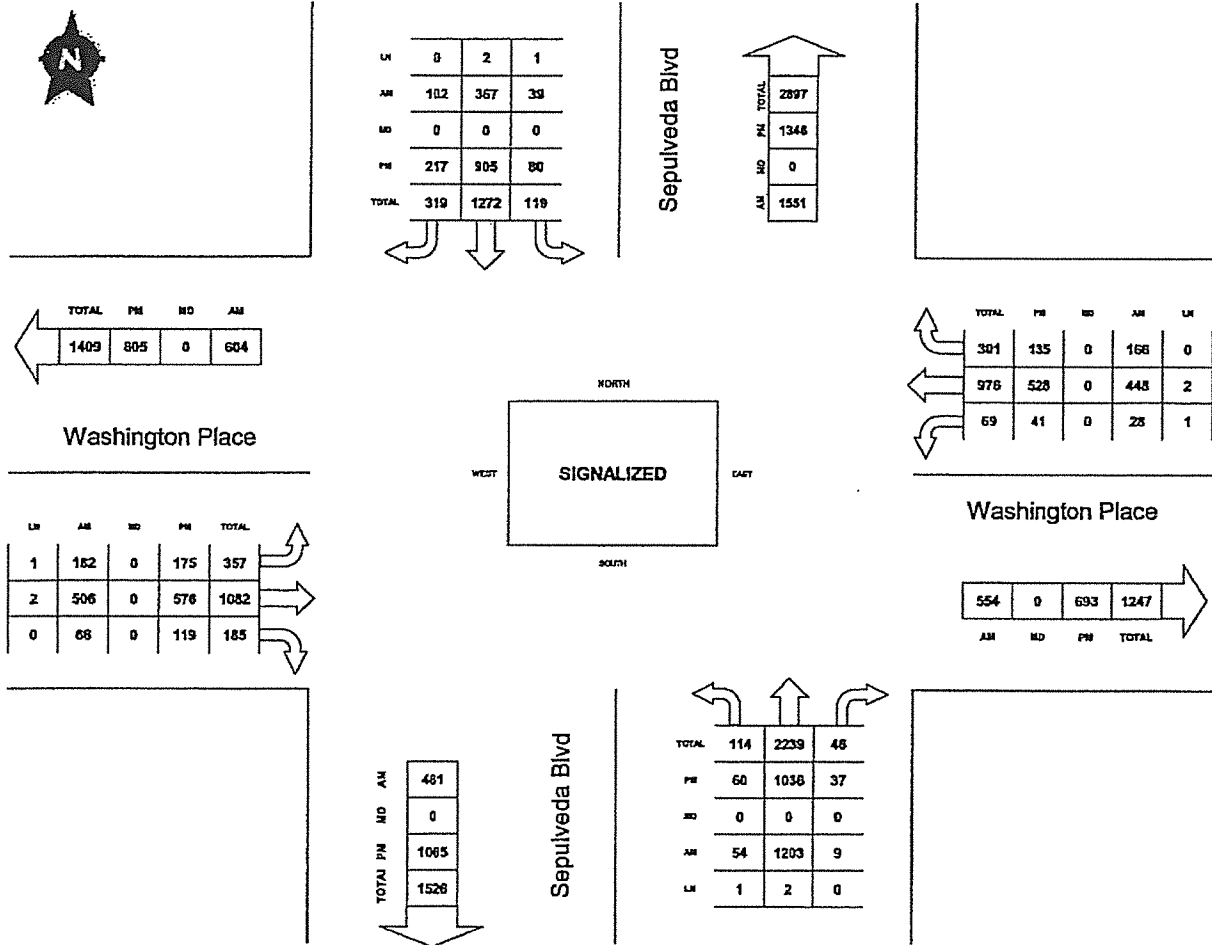
NS/EW Streets:		Sepulveda Blvd			Sepulveda Blvd			I-405 NB Ramps			I-405 NB Ramps			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL 1	NT 2	NR 0	SL 0	ST 2	SR 1	EL 1.5	ET 0	ER 0.5	WL 0	WT 0	WR 0	TOTAL
	4:00 PM	61	236	2	0	306	47	202	1	24	0	0	0	879
	4:15 PM	64	260	0	1	310	34	162	0	24	0	1	2	858
	4:30 PM	61	272	0	0	305	32	174	0	21	1	0	0	866
	4:45 PM	62	274	3	0	279	39	178	0	21	0	0	1	857
	5:00 PM	52	295	3	0	299	34	194	0	26	0	1	0	904
	5:15 PM	67	270	1	0	306	51	178	0	21	1	0	0	895
	5:30 PM	46	305	2	0	327	33	193	0	24	1	0	2	933
	5:45 PM	55	271	1	1	315	39	185	0	22	0	0	2	891
TOTAL VOLUMES :		NL 468	NT 2183	NR 12	SL 2	ST 2447	SR 309	EL 1466	ET 1	ER 183	WL 3	WT 2	WR 7	TOTAL 7083
APPROACH %'s :		17.57%	81.98%	0.45%	0.07%	88.72%	11.20%	88.85%	0.06%	11.09%	25.00%	16.67%	58.33%	
PEAK HR START TIME :		500 PM												TOTAL
PEAK HR VOL :		220	1141	7	1	1247	157	750	0	93	2	1	4	3623
PEAK HR FACTOR :		0.969			0.976			0.958			0.583			0.971

CONTROL : Signalized

PEAK HOUR ITM SUMMARY

#019 Sepulveda Blvd & Washington Place

LOCATION#:	019	QTD PROJ#:	100146	AM PEAK:	745 AM
NORTH / SOUTH:	Sepulveda Blvd	DATE:	Tuesday, June 01, 2010	MD PEAK:	
EAST / WEST:	Washington Place	VICINITY:	Culver City, CA	PM PEAK:	515 PM



AM COUNT 7:00AM TO 9:00AM MD COUNT - TO - PM COUNT 4:30PM TO 6:30PM



QUALITY TRAFFIC DATA, LLC

9701 W Pico Blvd, Suite 205, Los Angeles, CA 90035

Phone: 310-341-0019 Fax: 310-807-9247 Info@QualityTrafficData.com

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: CA13_5344_002

Day: THURSDAY

City: City of Culver City

Date: 6/20/2013

AM

NS/EW Streets:		Sepulveda Blvd			Sepulveda Blvd			Washington Place			Washington Place			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL
7:00 AM		6	295	1	1	40	13	67	7	19	4	68	25	546
7:15 AM		10	282	3	1	55	24	80	20	26	8	88	36	633
7:30 AM		13	272	4	2	80	29	73	23	42	10	86	40	674
7:45 AM		14	224	8	0	81	25	80	18	47	18	119	32	666
8:00 AM		16	261	7	0	77	38	73	19	44	8	109	44	696
8:15 AM		18	251	6	4	89	32	80	47	39	8	126	36	736
8:30 AM		12	265	7	3	101	26	84	44	52	16	135	43	788
8:45 AM		23	226	9	4	94	33	83	44	28	10	125	29	708
TOTAL VOLUMES :		NL 112	NT 2076	NR 45	SL 15	ST 617	SR 220	EL 620	ET 222	ER 297	WL 82	WT 856	WR 285	TOTAL 5447
APPROACH %'s :		5.02%	92.97%	2.02%	1.76%	72.42%	25.82%	54.43%	19.49%	26.08%	6.70%	69.99%	23.30%	
PEAK HR START TIME :		800 AM												TOTAL
PEAK HR VOL :		69	1003	29	11	361	129	320	154	163	42	495	152	2928
PEAK HR FACTOR :		0.969			0.956			0.885			0.888			0.929

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: CA13_5344_002

Day: THURSDAY

City: City of Culver City

Date: 6/20/2013

NS/EW Streets:	PM												TOTAL
	Sepulveda Blvd			Sepulveda Blvd			Washington Place			Washington Place			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	
4:00 PM	24	217	7	9	267	56	67	44	45	18	83	29	866
4:15 PM	19	229	5	8	262	50	71	39	47	11	95	24	860
4:30 PM	26	242	18	6	267	49	75	48	55	9	105	24	924
4:45 PM	31	236	10	11	230	54	73	56	57	15	81	24	878
5:00 PM	27	265	10	5	262	57	69	63	40	12	91	27	928
5:15 PM	27	267	13	4	265	60	64	52	50	17	107	33	959
5:30 PM	23	269	14	6	290	63	57	61	66	13	128	23	1013
5:45 PM	28	231	9	5	258	80	63	41	54	12	102	23	906
TOTAL VOLUMES :	NL 205	NT 1956	NR 86	SL 54	ST 2101	SR 469	EL 539	ET 404	ER 414	WL 107	WT 792	WR 207	TOTAL 7334
APPROACH %'s :	9.12%	87.05%	3.83%	2.06%	80.07%	17.87%	39.72%	29.77%	30.51%	9.67%	71.61%	18.72%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	105	1032	46	20	1075	260	253	217	210	54	428	106	3806
PEAK HR FACTOR :	0.963			0.944			0.924			0.896			0.939

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: CA13_5344_003

Day: THURSDAY

City: City of Culver City

Date: 6/20/2013

AM

NS/EW Streets:		Sepulveda Blvd			Sepulveda Blvd			Washington Blvd			Washington Blvd			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
7:00 AM		20	253	12	13	43	4	41	84	11	14	61	9	565
7:15 AM		15	251	23	13	63	6	40	94	10	8	77	10	610
7:30 AM		24	240	17	25	87	16	40	148	25	9	91	17	739
7:45 AM		28	193	11	13	117	8	30	179	38	17	98	13	745
8:00 AM		32	230	27	28	88	12	40	168	27	14	119	27	812
8:15 AM		27	198	27	23	76	17	50	168	27	29	107	17	766
8:30 AM		43	207	24	30	114	19	49	211	18	15	121	21	872
8:45 AM		19	198	27	20	89	17	44	201	25	15	120	12	787
TOTAL VOLUMES :		NL 208	NT 1770	NR 168	SL 165	ST 677	SR 99	EL 334	ET 1253	ER 181	WL 121	WT 794	WR 126	TOTAL 5896
APPROACH %'s :		9.69%	82.48%	7.83%	17.53%	71.94%	10.52%	18.89%	70.87%	10.24%	11.62%	76.27%	12.10%	
PEAK HR START TIME :		800 AM												TOTAL
PEAK HR VOL :		121	833	105	101	367	65	183	748	97	73	467	77	3237
PEAK HR FACTOR :		0.916			0.817			0.924			0.964			0.928

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: CA13_5344_003

Day: THURSDAY

City: City of Culver City

Date: 6/20/2013

NS/EW Streets:	PM												TOTAL
	Sepulveda Blvd			Sepulveda Blvd			Washington Blvd			Washington Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	
4:00 PM	21	208	29	33	269	30	30	161	31	25	136	21	994
4:15 PM	23	201	36	27	300	19	35	156	18	41	121	19	996
4:30 PM	24	258	29	29	273	19	33	167	33	36	146	15	1062
4:45 PM	30	212	24	35	246	20	27	174	27	29	138	16	978
5:00 PM	28	263	29	30	275	17	28	186	38	36	148	24	1102
5:15 PM	22	261	47	32	275	26	36	177	18	31	125	25	1075
5:30 PM	21	266	25	28	304	31	44	192	34	30	158	16	1149
5:45 PM	29	245	34	44	268	20	32	159	28	38	138	10	1045
TOTAL VOLUMES :	NL 198	NT 1914	NR 253	SL 258	ST 2210	SR 182	EL 265	ET 1372	ER 227	WL 266	WT 1110	WR 146	8401
APPROACH %'s :	8.37%	80.93%	10.70%	9.74%	83.40%	6.87%	14.22%	73.61%	12.18%	17.48%	72.93%	9.59%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	100	1035	135	134	1122	94	140	714	118	135	569	75	4371
PEAK HR FACTOR :	0.962			0.930			0.900			0.936			0.951

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: CA13_5344_004

Day: THURSDAY

City: City of Culver City

Date: 6/20/2013

AM

NS/EW Streets:		Sawtelle Blvd			Sawtelle Blvd			Washington Place			Washington Place			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL 0	NT 2	NR 0	SL 0	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 1	TOTAL
	7:00 AM	3	86	6	7	18	24	18	87	5	2	51	26	333
	7:15 AM	7	104	7	4	23	31	30	104	8	5	73	36	432
	7:30 AM	8	125	5	7	33	23	44	127	14	2	92	33	513
	7:45 AM	10	127	10	5	40	25	48	126	12	5	116	43	567
	8:00 AM	9	128	12	12	40	34	29	113	20	4	104	46	551
	8:15 AM	3	155	9	8	47	24	57	149	20	8	126	48	654
	8:30 AM	12	139	5	14	40	31	46	170	25	10	111	51	654
	8:45 AM	6	146	11	11	62	38	47	123	15	12	130	40	641
TOTAL VOLUMES :		NL 58	NT 1010	NR 65	SL 68	ST 303	SR 230	EL 319	ET 999	ER 119	WL 48	WT 803	WR 323	TOTAL 4345
APPROACH %'s :		5.12%	89.14%	5.74%	11.31%	50.42%	38.27%	22.20%	69.52%	8.28%	4.09%	68.40%	27.51%	
PEAK HR START TIME :		800 AM												TOTAL
PEAK HR VOL :		30	568	37	45	189	127	179	555	80	34	471	185	2500
PEAK HR FACTOR :		0.951			0.813			0.844			0.948			0.956

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: CA13_5344_004

Day: THURSDAY

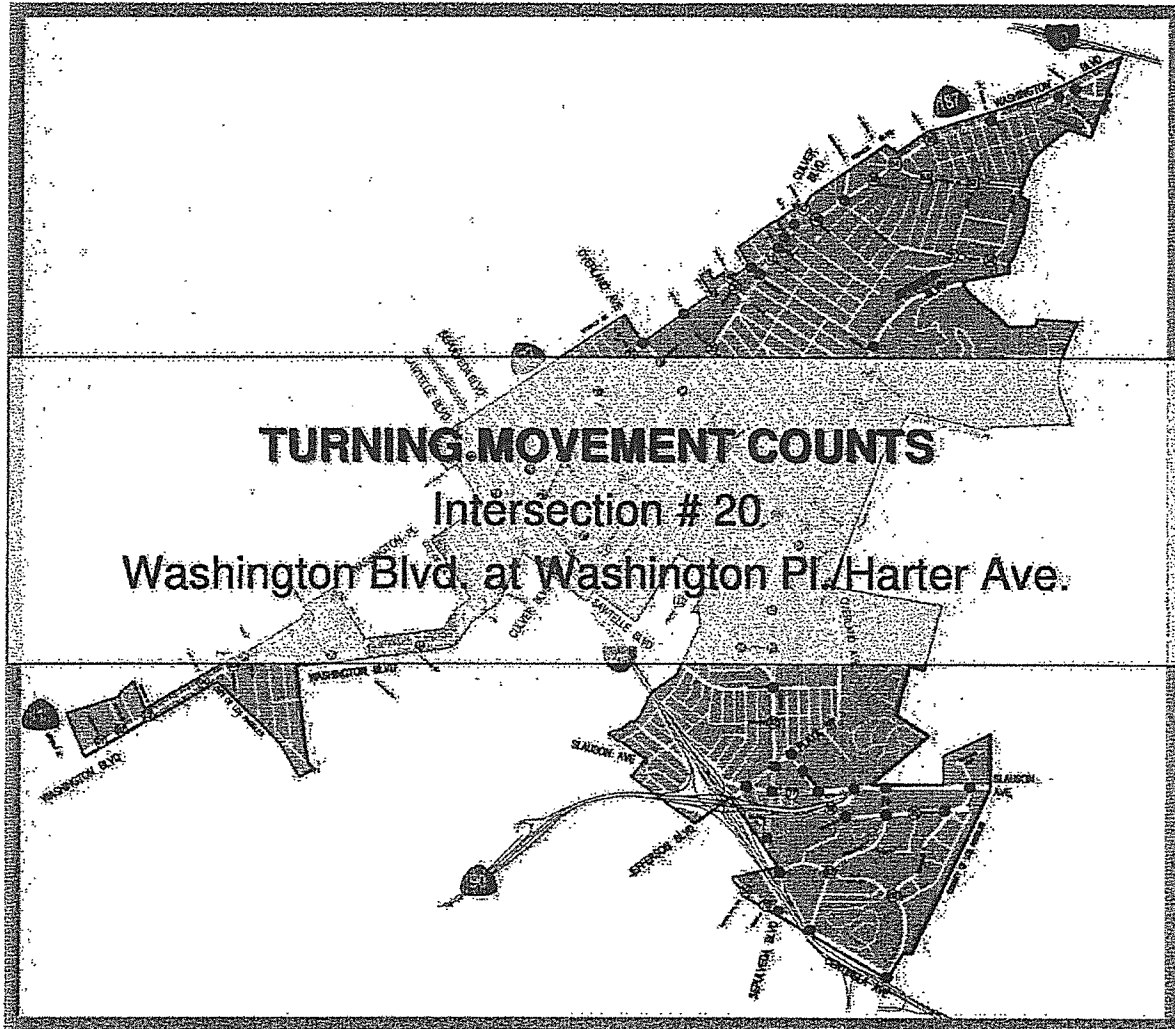
City: City of Culver City

Date: 6/20/2013

PM														
NS/EW Streets:	Sawtelle Blvd			Sawtelle Blvd			Washington Place			Washington Place				
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:	NL 0	NT 2	NR 0	SL 0	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 1	TOTAL	
4:00 PM	9	84	10	15	155	56	31	121	25	11	112	24	653	
4:15 PM	8	117	10	12	145	63	25	130	27	7	132	30	706	
4:30 PM	8	122	9	15	162	55	17	159	26	8	129	41	751	
4:45 PM	11	108	6	14	135	61	33	159	18	5	142	32	724	
5:00 PM	11	114	11	10	168	55	32	155	23	6	124	31	740	
5:15 PM	15	128	8	16	152	63	35	145	33	7	167	34	803	
5:30 PM	12	133	8	22	164	46	22	145	30	2	160	34	778	
5:45 PM	9	159	10	16	172	68	26	139	22	6	176	42	845	
TOTAL VOLUMES :	NL 83	NT 965	NR 72	SL 120	ST 1253	SR 467	EL 221	ET 1153	ER 204	WL 52	WT 1142	WR 268	TOTAL 6000	
APPROACH %'s :	7.41%	86.16%	6.43%	6.52%	68.10%	25.38%	14.01%	73.07%	12.93%	3.56%	78.11%	18.33%		
PEAK HR START TIME :	500 PM													TOTAL
PEAK HR VOL :	47	534	37	64	656	232	115	584	108	21	627	141	3166	
PEAK HR FACTOR :	0.868			0.930			0.947			0.881			0.937	

CONTROL : Signalized

VOLUME II-A
Culver City Traffic Light Synchronization Project (TLSP)



#020 South Tilden Ave & Washington Blvd

VEHICLE TURNING MOVEMENT COUNT

#020 South Tilden Ave & Washington Blvd - AM PEAK

LOCATION#: 020
NORTH / SOUTH: South Tilden Ave
EAST / WEST: Washington Blvd

QTD PROJ#: 100146
DATE: Tuesday, June 01, 2010
VICINITY: Culver City, CA

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	0	1	0	0	0	0	0	2	0	1	1.5	1.5	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	1	0	0	0	0	0	0	191	0	1	158	0	351
7:15 AM	2	0	0	0	0	0	0	214	0	0	188	0	404
7:30 AM	0	0	1	0	0	0	0	238	0	0	216	0	455
7:45 AM	2	0	3	0	0	0	0	259	1	2	254	0	521
8:00 AM	1	0	1	0	0	0	0	266	2	1	277	0	548
8:15 AM	3	0	0	0	0	0	0	298	1	3	268	0	573
8:30 AM	1	0	3	0	0	0	0	283	2	0	297	0	586
8:45 AM	3	0	4	0	0	0	0	293	1	1	298	0	600
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	13	0	12	0	0	0	0	2042	7	8	1956	0	4038
P.H.V: 1	8	0	8	0	0	0	0	1140	6	5	1140	0	2307
P.H.F: 2	0.571			0.000				0.958			0.957		0.961

- (1) Peak Hour Volume (Peak Hour Begins At 800 AM)
(2) Peak Hour Factor (directional aggregate)



QUALITY TRAFFIC DATA, LLC

9701 W Pico Blvd, Suite 205, Los Angeles, CA 90035
Phone: 310-341-0019 Fax: 310-807-9247 Info@QualityTrafficData.com

VEHICLE TURNING MOVEMENT COUNT

#020 South Tilden Ave & Washington Blvd - PM PEAK

LOCATION#: 020
NORTH / SOUTH: South Tilden Ave
EAST / WEST: Washington Blvd

QTD PROJ#: 100146
DATE: Tuesday, June 01, 2010
VICINITY: Culver City, CA

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	0	1	0	0	0	0	0	2	0	1	1.5	1.5	
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM													
4:15 PM													
4:30 PM	2	0	3	0	0	0	0	285	4	1	277	0	572
4:45 PM	1	0	2	0	0	0	0	294	9	2	298	0	606
5:00 PM	3	0	4	0	0	0	0	309	6	6	328	0	656
5:15 PM	2	0	6	0	0	0	0	338	1	0	351	0	698
5:30 PM	3	0	3	0	0	0	0	333	2	4	335	0	680
5:45 PM	1	0	2	0	0	0	0	331	1	0	330	0	665
6:00 PM	6	0	3	0	0	0	0	325	3	4	357	0	698
6:15 PM	1	0	2	0	0	0	0	315	4	2	348	0	672
6:30 PM													
6:45 PM													
VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	19	0	25	0	0	0	0	2530	30	19	2624	0	5247
P.H.V: 1	12	0	14	0	0	0	0	1327	7	8	1373	0	2741
P.H.F: 2	0.722			0.000				0.984			0.956		0.982

(1) Peak Hour Volume (Peak Hour Begins At 5:15 PM)

(2) Peak Hour Factor (directional aggregate)



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Phone: 310-341-0019 Fax: 310-807-9247 Info@QualityTrafficData.com

TRUCKS TURNING MOVEMENT COUNT

#020 South Tilden Ave & Washington Blvd - AM PEAK

LOCATION#: 020
NORTH / SOUTH: South Tilden Ave
EAST / WEST: Washington Blvd

QTD PROJ#: 100146
DATE: Tuesday, June 01, 2010
VICINITY: Culver City, CA

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	0	1	0	0	0	0	0	2	0	1	1.5	1.5	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
7:30 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
7:45 AM	0	0	0	0	0	0	0	1	0	0	3	0	4
8:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
8:15 AM	0	0	0	0	0	0	0	2	0	0	2	0	4
8:30 AM	0	0	0	0	0	0	0	1	0	0	3	0	4
8:45 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	0	0	0	0	0	0	0	9	0	0	14	0	23
P.H.V: 1	0	0	0	0	0	0	0	5	0	0	9	0	14
P.H.F: 2	0.000	0.000		0.000			0.625			0.750			0.875

- (1) Peak Hour Volume (Peak Hour Begins At 745 AM)
(2) Peak Hour Factor (directional aggregate)



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9701 W Pico Blvd, Suite 205, Los Angeles, CA 90035
Phone: 310-341-0019 Fax: 310-807-9247 info@QualityTrafficData.com

TRUCKS TURNING MOVEMENT COUNT

#020 South Tilden Ave & Washington Blvd - PM PEAK

LOCATION#: 020
NORTH / SOUTH: South Tilden Ave
EAST / WEST: Washington Blvd

QTD PROJ#: 100146
DATE: Tuesday, June 01, 2010
VICINITY: Culver City, CA

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	0	1	0	0	0	0	0	2	0	1	1.5	1.5	
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM													
4:15 PM													
4:30 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:00 PM	0	0	0	0	0	0	0	2	0	0	2	0	4
5:15 PM	0	0	0	0	0	0	0	2	0	0	1	0	3
5:30 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
5:45 PM	0	0	0	0	0	0	0	2	0	0	2	0	4
6:00 PM	0	0	0	0	0	0	0	2	0	0	1	0	3
6:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
6:30 PM													
6:45 PM													
VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	0	0	0	0	0	0	0	10	0	0	11	0	21
P.H.V: 1	0	0	0	0	0	0	0	7	0	0	6	0	13
P.H.F: 2	0.000	0.000	0.000	0.000	0.000	0.000	0.875	0.750	0.813				

(1) Peak Hour Volume (Peak Hour Begins At 500 PM)

(2) Peak Hour Factor (directional aggregate)



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Phone: 310-341-0019 Fax: 310-807-9247 Info@QualityTrafficData.com

PEDESTRIAN CROSSWALK COUNTS

#020 South Tilden Ave & Washington Blvd - AM PEAK

LOCATION#: 020
NORTH / SOUTH: South Tilden Ave
EAST / WEST: Washington Blvd

QTD PROJ#: 100146
DATE: Tuesday, June 01, 2010
VICINITY: Culver City, CA

DIRECTION:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	TOTALS
6:00 AM					
6:15 AM					
6:30 AM					
6:45 AM					
7:00 AM	0	1	0	0	1
7:15 AM	0	0	0	0	
7:30 AM	0	0	0	2	2
7:45 AM	0	0	0	3	3
8:00 AM	0	1	0	0	1
8:15 AM	0	1	0	0	1
8:30 AM	0	0	0	0	
8:45 AM	0	0	0	1	1
9:00 AM					
9:15 AM					
9:30 AM					
9:45 AM					
10:00 AM					
10:15 AM					
10:30 AM					
VOLUME STATS:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	
TOTAL:	0	3	0	6	9
P.H.V: 1	0	2	0	5	7
P.H.F: 2	0.000	0.500	0.000	0.417	0.583

(1) Peak Hour Volume (Peak hour begins at: 730 AM)

(2) Peak Hour Factor



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Phone: 310-341-0019 Fax: 310-807-9247 Info@QualityTrafficData.com

PEDESTRIAN CROSSWALK COUNTS

#020 South Tilden Ave & Washington Blvd - PM PEAK

LOCATION#: 020
NORTH / SOUTH: South Tilden Ave
EAST / WEST: Washington Blvd

QTD PROJ#: 100146
DATE: Tuesday, June 01, 2010
VICINITY: Culver City, CA

DIRECTION:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	TOTALS
4:00 PM					
4:15 PM					
4:30 PM	0	0	0	2	2
4:45 PM	0	1	0	0	1
5:00 PM	0	0	0	4	4
5:15 PM	0	0	0	5	5
5:30 PM	0	0	0	0	
5:45 PM	0	0	0	3	3
6:00 PM	0	0	0	9	9
6:15 PM	0	0	0	2	2
6:30 PM					
6:45 PM					
VOLUME STATS:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	
TOTAL:	0	1	0	25	26
P.H.V: 1	0	0	0	17	17
P.H.F: 2	0.000	0.000	0.000	0.472	0.472

(1) Peak Hour Volume (Peak hour begins at: 5:15 PM)
(2) Peak Hour Factor



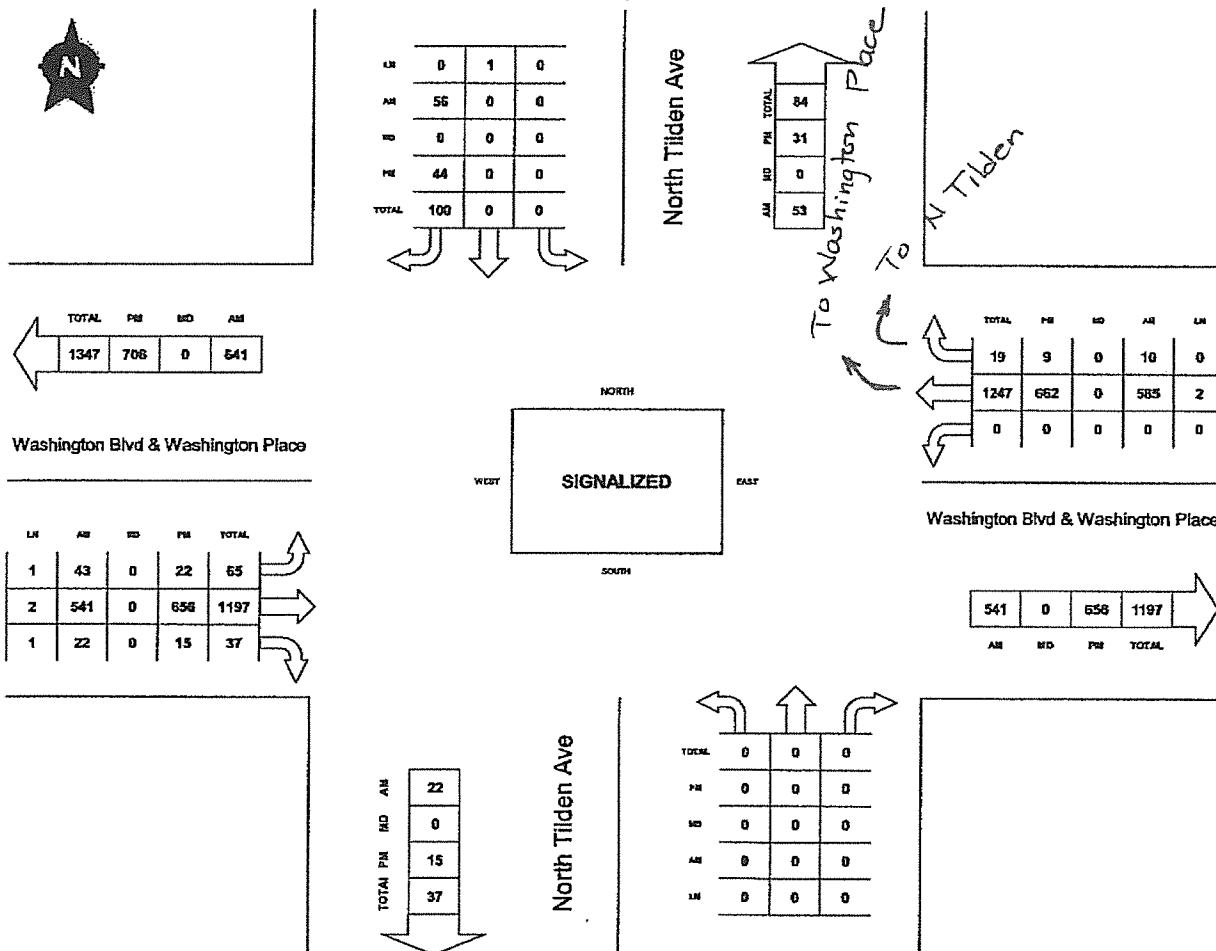
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PEAK HOUR ITM SUMMARY

#020 North Tilden Ave & Washington Blvd & Washington Place

LOCATION#: 020	QTD PROJ#: 100146	AM PEAK: 800 AM
NORTH / SOUTH: North Tilden Ave	DATE: Tuesday, June 01, 2010	MD PEAK:
EAST / WEST: Washington Blvd & Washington Place	VICINITY: Culver City, CA	PM PEAK: 530 PM



AM COUNT 7:00AM TO 9:00AM

MD COUNT

TO

PM COUNT

4:30PM

TO

6:30PM



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Phone: 310-341-0019 Fax: 310-807-9247 Info@QualityTrafficData.com

VEHICLE TURNING MOVEMENT COUNT

#020 North Tilden Ave & Washington Blvd & Washington Place - AM PEAK

LOCATION#: 020
 NORTH / SOUTH: North Tilden Ave
 EAST / WEST: Washington Blvd & Washington Place

QTD PROJ#: 100148
 DATE: Tuesday, June 01, 2010
 VICINITY: Culver City, CA

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	0	0	0	0	1	0	1	2	1	0	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	0	0	0	0	4	1	110	1	0	88	2	206
7:15 AM	0	0	0	0	0	8	8	115	0	0	109	3	243
7:30 AM	0	0	0	0	0	11	6	123	2	0	121	4	267
7:45 AM	0	0	0	0	0	25	9	133	3	0	132	3	305
8:00 AM	0	0	0	0	0	19	10	127	8	0	142	4	310
8:15 AM	0	0	0	0	0	18	13	147	3	0	141	1	323
8:30 AM	0	0	0	0	0	12	12	130	6	0	152	2	314
8:45 AM	0	0	0	0	0	7	8	137	5	0	150	3	310
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	0	0	0	0	0	104	67	1022	28	0	1035	22	2278
P.H.V: 1	0	0	0	0	0	56	43	541	22	0	585	10	1257
P.H.F: 2	0.000			0.737			0.929			0.966			0.973

(1) Peak Hour Volume (Peak Hour Begins At 8:00 AM)

(2) Peak Hour Factor (directional aggregate)



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9701 W Pico Blvd, Suite 205, Los Angeles, CA 90035
 Phone: 310-341-0019 Fax: 310-807-9247 Info@QualityTrafficData.com

VEHICLE TURNING MOVEMENT COUNT

#020 North Tilden Ave & Washington Blvd & Washington Place - PM PEAK

LOCATION#: 020 NORTH / SOUTH: North Tilden Ave
 EAST / WEST: Washington Blvd & Washington Place

QTD PROJ#: 100146
 DATE: Tuesday, June 01, 2010
 VICINITY: Culver City, CA

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	0	0	0	0	1	0	1	2	1	0	2	0	
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM													
4:15 PM													
4:30 PM	0	0	0	0	0	8	11	123	4	0	124	1	271
4:45 PM	0	0	0	0	0	5	7	130	3	0	130	5	280
5:00 PM	0	0	0	0	0	8	6	143	4	0	144	8	313
5:15 PM	0	0	0	0	0	7	7	157	3	0	162	5	341
5:30 PM	0	0	0	0	0	11	4	165	9	0	156	0	345
5:45 PM	0	0	0	0	0	15	9	161	0	0	158	2	345
6:00 PM	0	0	0	0	0	10	4	162	4	0	178	3	361
6:15 PM	0	0	0	0	0	8	5	168	2	0	170	4	357
6:30 PM													
6:45 PM													
VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	0	0	0	0	0	72	53	1209	29	0	1222	28	2613
P.H.V: 1	0	0	0	0	0	44	22	656	15	0	662	9	1408
P.H.F: 2	0.000			0.733			0.973			0.927			0.975

(1) Peak Hour Volume (Peak Hour Begins At 530 PM)

(2) Peak Hour Factor (directional aggregate)



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TRUCKS TURNING MOVEMENT COUNT

#020 North Tilden Ave & Washington Blvd & Washington Place - AM PEAK

LOCATION#: 020 NORTH / SOUTH: North Tilden Ave EAST / WEST: Washington Blvd & Washington Place
 QTD PROJ#: 100146 DATE: Tuesday, June 01, 2010 VICINITY: Culver City, CA

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	0	0	0	0	1	0	1	2	1	0	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	0	0	0	0	0	0	0	1	0	1	0	2
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	0	0	0	0	0	0	0	0	1	0	2	0	3
P.H.V: 1	0	0	0	0	0	0	0	0	1	0	2	0	3
P.H.F: 2	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.500					0.375

(1) Peak Hour Volume (Peak Hour Begins At 800 AM)

(2) Peak Hour Factor (directional aggregate)



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 Phone: 310-341-0019 Fax: 310-807-9247 Info@QualityTrafficData.com

TRUCKS TURNING MOVEMENT COUNT

#020 North Tilden Ave & Washington Blvd & Washington Place - PM PEAK

LOCATION#: 020

NORTH / SOUTH: North Tilden Ave

EAST / WEST: Washington Blvd & Washington Place

QTD PROJ#: 100146

DATE: Tuesday, June 01, 2010

VICINITY: Culver City, CA

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	0	0	0	0	1	0	1	2	1	0	2	0	
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM													
4:15 PM													
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 PM													
6:45 PM													
VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	0	0	0	0	0	0	0	0	0	0	0	0	0
P.H.V: 1	0	0	0	0	0	0	0	0	0	0	0	0	0
P.H.F: 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

(1) Peak Hour Volume (Peak Hour Begins At 0 AM)

(2) Peak Hour Factor (directional aggregate)



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PEDESTRIAN CROSSWALK COUNTS

#020 North Tilden Ave & Washington Blvd & Washington Place - AM PEAK

LOCATION#: 020 NORTH / SOUTH: North Tilden Ave
 EAST / WEST: Washington Blvd & Washington Place
 QTD PROJ#: 100146 DATE: Tuesday, June 01, 2010
 VICINITY: Culver City, CA

DIRECTION:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	TOTALS
6:00 AM					
6:15 AM					
6:30 AM					
6:45 AM					
7:00 AM	0	0	0	0	
7:15 AM	2	0	0	0	2
7:30 AM	1	2	0	0	3
7:45 AM	0	2	0	0	2
8:00 AM	0	1	0	0	1
8:15 AM	2	1	0	0	3
8:30 AM	0	0	0	0	
8:45 AM	2	4	0	0	6
9:00 AM					
9:15 AM					
9:30 AM					
9:45 AM					
10:00 AM					
10:15 AM					
10:30 AM					
VOLUME STATS:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	
TOTAL:	7	10	0	0	17
P.H.V: 1	4	6	0	0	10
P.H.F: 3	0.500	0.375	0.000	0.000	0.417

(1) Peak Hour Volume (Peak hour begins at: 800 AM)
 (2) Peak Hour Factor



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PEDESTRIAN CROSSWALK COUNTS

#020 North Tilden Ave & Washington Blvd & Washington Place - PM PEAK

LOCATION#: 020 NORTH / SOUTH: North Tilden Ave EAST / WEST: Washington Blvd & Washington Place
 QTD PROJ#: 100146 DATE: Tuesday, June 01, 2010 VICINITY: Culver City, CA

DIRECTION:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	TOTALS
4:00 PM					
4:15 PM					
4:30 PM	0	0	0	0	
4:45 PM	3	2	0	0	5
5:00 PM	0	1	0	0	1
5:15 PM	1	4	0	0	5
5:30 PM	1	0	1	0	2
5:45 PM	1	0	0	0	1
6:00 PM	1	0	0	0	1
6:15 PM	0	0	0	0	
6:30 PM					
6:45 PM					
VOLUME STATS:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	
TOTAL:	7	7	1	0	15
P.H.V: 1	5	7	1	0	13
P.H.F: 2	0.417	0.438	0.250	0.000	0.650

(1) Peak Hour Volume (Peak hour begins at: 445 PM)
 (2) Peak Hour Factor



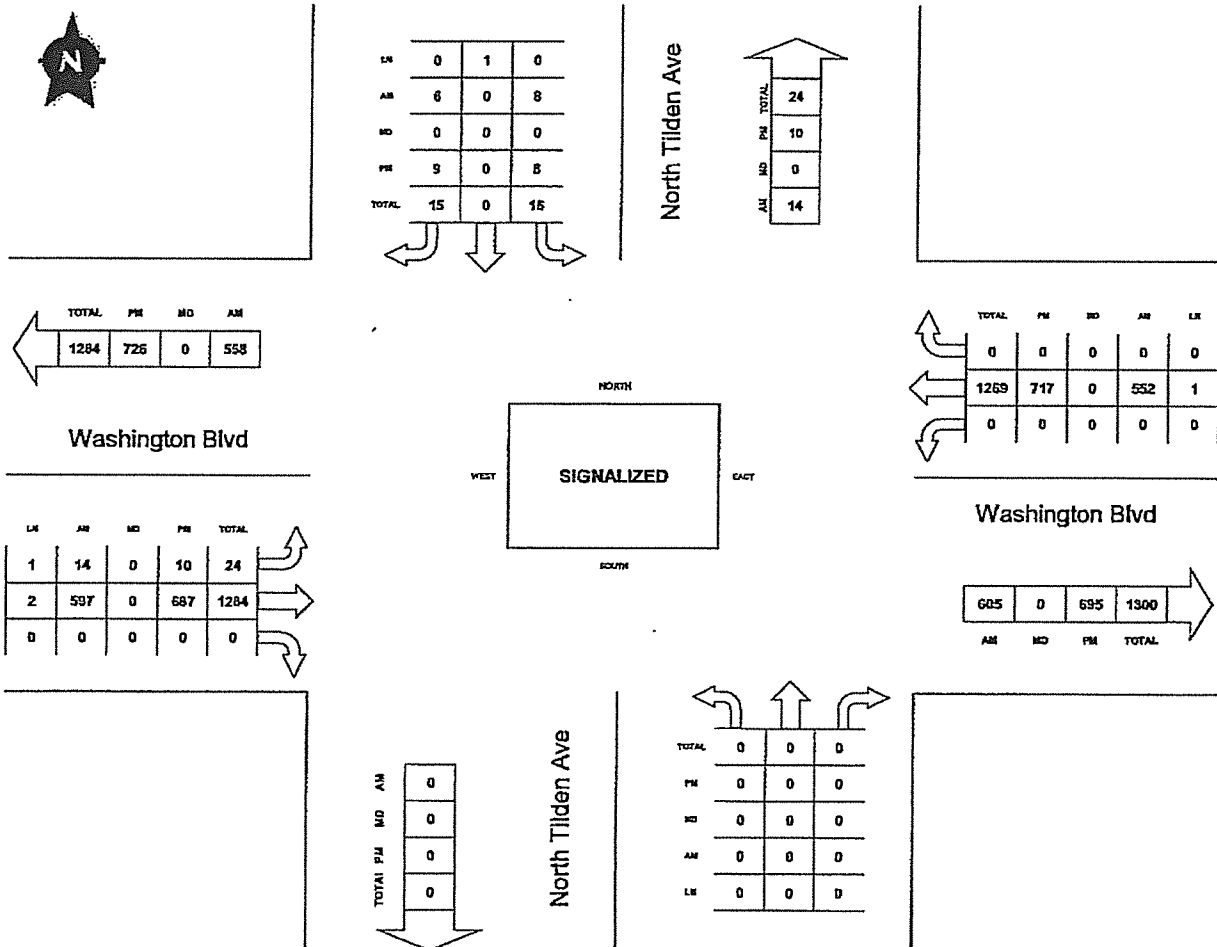
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PEAK HOUR ITM SUMMARY

#020 North Tilden Ave & Washington Blvd

LOCATION#:	020	QTD PROJ#:	100146	AM PEAK:	800 AM
NORTH / SOUTH:	North Tilden Ave	DATE:	Tuesday, June 01, 2010	MD PEAK:	
EAST / WEST:	Washington Blvd	VICINITY:	Culver City, CA	PM PEAK:	500 PM



AM COUNT 7:00AM TO 9:00AM MD COUNT - TO - PM COUNT 4:30PM TO 6:30PM



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VEHICLE TURNING MOVEMENT COUNT

#020 North Tilden Ave & Washington Blvd - AM PEAK

LOCATION#: 020
NORTH / SOUTH: North Tilden Ave
EAST / WEST: Washington Blvd

QTD PROJ#: 100146
DATE: Tuesday, June 01, 2010
VICINITY: Culver City, CA

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	0	0	0	0	1	0	1	2	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	0	0	0	0	0	3	81	0	0	69	0	153
7:15 AM	0	0	0	1	0	0	1	98	0	0	78	0	178
7:30 AM	0	0	0	5	0	1	3	110	0	0	91	0	210
7:45 AM	0	0	0	3	0	2	2	124	0	0	121	0	252
8:00 AM	0	0	0	5	0	1	4	136	0	0	132	0	278
8:15 AM	0	0	0	1	0	2	7	151	0	0	129	0	290
8:30 AM	0	0	0	2	0	1	1	153	0	0	144	0	301
8:45 AM	0	0	0	0	0	2	2	157	0	0	147	0	308
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	0	0	0	17	0	9	23	1010	0	0	911	0	1970
P.H.V: 1	0	0	0	8	0	6	14	597	0	0	552	0	1177
P.H.F: 2	0.000			0.583			0.961			0.939			0.955

- (1) Peak Hour Volume (Peak Hour Begins At 800 AM)
(2) Peak Hour Factor (directional aggregate)



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VEHICLE TURNING MOVEMENT COUNT

#020 North Tilden Ave & Washington Blvd - PM PEAK

LOCATION#: 020
NORTH / SOUTH: North Tilden Ave
EAST / WEST: Washington Blvd

QTD PROJ#: 100146
DATE: Tuesday, June 01, 2010
VICINITY: Culver City, CA

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	0	0	0	0	1	0	1	2	0	0	1	0	
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM													
4:15 PM													
4:30 PM	0	0	0	0	0	2	6	166	0	0	153	0	327
4:45 PM	0	0	0	1	0	1	5	172	0	0	164	0	343
5:00 PM	0	0	0	2	0	2	2	170	0	0	179	0	355
5:15 PM	0	0	0	3	0	1	4	179	0	0	186	0	373
5:30 PM	0	0	0	2	0	4	3	168	0	0	181	0	358
5:45 PM	0	0	0	1	0	2	1	170	0	0	171	0	345
6:00 PM	0	0	0	2	0	0	2	164	0	0	182	0	350
6:15 PM	0	0	0	0	0	2	1	151	0	0	175	0	329
6:30 PM													
6:45 PM													
VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	0	0	0	11	0	14	24	1340	0	0	1391	0	2780
P.H.V: 1	0	0	0	8	0	9	10	687	0	0	717	0	1431
P.H.F: 2	0.000			0.708			0.952			0.964			0.959

(1) Peak Hour Volume (Peak Hour Begins At 5:00 PM)

(2) Peak Hour Factor (directional aggregate)



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TRUCKS TURNING MOVEMENT COUNT

#020 North Tilden Ave & Washington Blvd - AM PEAK

LOCATION#: 020
NORTH / SOUTH: North Tilden Ave
EAST / WEST: Washington Blvd

QTD PROJ#: 100146
DATE: Tuesday, June 01, 2010
VICINITY: Culver City, CA

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	0	0	0	0	1	0	1	2	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	0	0	0	0	0	0	0	2	0	0	0	0	2
P.H.V: 1	0	0	0	0	0	0	0	2	0	0	0	0	2
P.H.F: 2	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.500

- (1) Peak Hour Volume (Peak Hour Begins At 7:15 AM)
(2) Peak Hour Factor (directional aggregate)



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TRUCKS TURNING MOVEMENT COUNT

#020 North Tilden Ave & Washington Blvd - PM PEAK

LOCATION#: 020
NORTH / SOUTH: North Tilden Ave
EAST / WEST: Washington Blvd

QTD PROJ#: 100146
DATE: Tuesday, June 01, 2010
VICINITY: Culver City, CA

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	0	0	0	0	1	0	1	2	0	0	1	0	
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM													
4:15 PM													
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 PM													
6:45 PM													
VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	0	0	0	0	0	0	0	1	0	0	2	0	3
P.H.V: 1	0	0	0	0	0	0	0	1	0	0	2	0	3
P.H.F: 2	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.500	0.500	0.000	0.375

(1) Peak Hour Volume (Peak Hour Begins At 4:30 PM)

(2) Peak Hour Factor (directional aggregate)



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PEDESTRIAN CROSSWALK COUNTS

#020 North Tilden Ave & Washington Blvd - AM PEAK

LOCATION#: 020
NORTH / SOUTH: North Tilden Ave
EAST / WEST: Washington Blvd

QTD PROJ#: 100146
DATE: Tuesday, June 01, 2010
VICINITY: Culver City, CA

DIRECTION:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	TOTALS
6:00 AM					
6:15 AM					
6:30 AM					
6:45 AM					
7:00 AM	0	0	1	0	1
7:15 AM	0	0	4	1	5
7:30 AM	2	0	2	5	9
7:45 AM	0	0	0	5	5
8:00 AM	0	0	0	4	4
8:15 AM	0	0	3	13	16
8:30 AM	1	0	1	0	2
8:45 AM	0	0	1	2	3
9:00 AM					
9:15 AM					
9:30 AM					
9:45 AM					
10:00 AM					
10:15 AM					
10:30 AM					
VOLUME STATS:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	
TOTAL:	3	0	12	30	45
P.H.V: 1	2	0	5	27	34
P.H.F: 2	0.250	0.000	0.417	0.519	0.531

(1) Peak Hour Volume (Peak hour begins at: 730 AM)

(2) Peak Hour Factor



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PEDESTRIAN CROSSWALK COUNTS

#020 North Tilden Ave & Washington Blvd - PM PEAK

LOCATION#: 020
NORTH / SOUTH: North Tilden Ave
EAST / WEST: Washington Blvd

QTD PROJ#: 100146
DATE: Tuesday, June 01, 2010
VICINITY: Culver City, CA

DIRECTION:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	TOTALS
4:00 PM					
4:15 PM					
4:30 PM	0	0	4	0	4
4:45 PM	0	1	4	0	5
5:00 PM	0	0	0	1	1
5:15 PM	2	1	1	4	8
5:30 PM	0	1	3	0	4
5:45 PM	0	0	2	1	3
6:00 PM	0	0	0	1	1
6:15 PM	0	0	0	3	3
6:30 PM					
6:45 PM					
VOLUME STATS:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	
TOTAL:	2	3	14	10	29
P.H.V: 1	2	3	8	5	18
P.H.F: 2	0.250	0.750	0.500	0.313	0.563

(1) Peak Hour Volume (Peak hour begins at: 445 PM)

(2) Peak Hour Factor



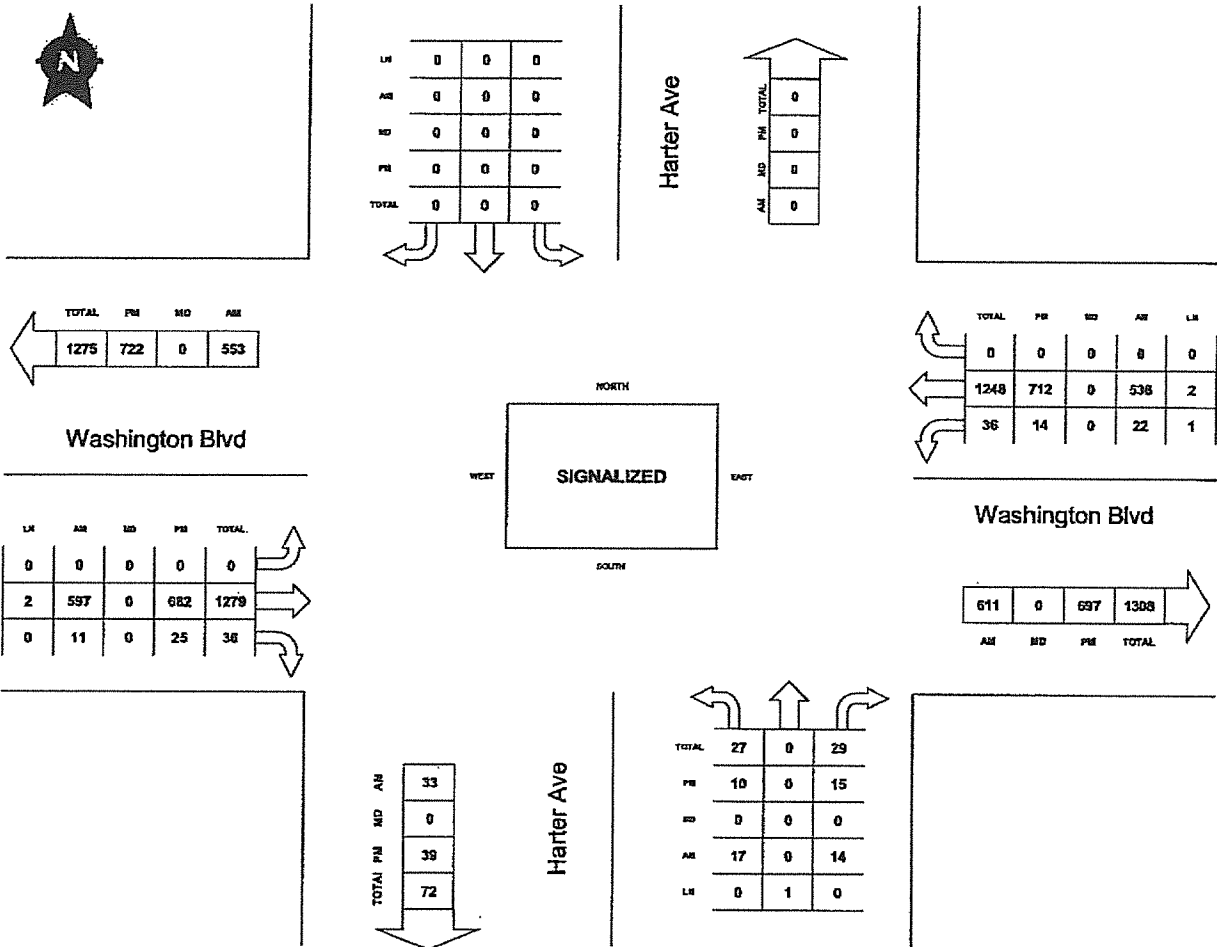
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PEAK HOUR ITM SUMMARY

#020 Harter Ave & Washington Blvd

LOCATION#:	020	QTD PROJ#:	100146	AM PEAK:	800 AM
NORTH / SOUTH:	Harter Ave	DATE:	Tuesday, June 01, 2010	MD PEAK:	
EAST / WEST:	Washington Blvd	VICINITY:	Culver City, CA	PM PEAK:	500 PM



AM COUNT 7:00AM TO 9:00AM

MD COUNT - TO -

PM COUNT 4:30PM TO 6:30PM



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VEHICLE TURNING MOVEMENT COUNT

#020 Harter Ave & Washington Blvd - AM PEAK

LOCATION#: 020
NORTH / SOUTH: Harter Ave
EAST / WEST: Washington Blvd

QTD PROJ#: 100146
DATE: Tuesday, June 01, 2010
VICINITY: Culver City, CA

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	0	1	0	0	0	0	0	2	0	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	3	0	3	0	0	0	0	81	0	0	69	0	156
7:15 AM	0	0	2	0	0	0	0	97	1	2	76	0	178
7:30 AM	5	0	3	0	0	0	0	110	2	0	92	0	212
7:45 AM	6	0	4	0	0	0	0	122	6	1	122	0	261
8:00 AM	3	0	6	0	0	0	0	134	5	3	130	0	281
8:15 AM	7	0	5	0	0	0	0	153	1	5	126	0	297
8:30 AM	2	0	2	0	0	0	0	152	3	6	139	0	304
8:45 AM	5	0	1	0	0	0	0	158	2	8	141	0	315
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	31	0	26	0	0	0	0	1007	20	25	895	0	2004
P.H.V: 1	17	0	14	0	0	0	0	597	11	22	536	0	1197
P.H.F: 2		0.646			0.000			0.950			0.936		0.950

(1) Peak Hour Volume (Peak Hour Begins At 800 AM)

(2) Peak Hour Factor (directional aggregate)



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VEHICLE TURNING MOVEMENT COUNT

#020 Harter Ave & Washington Blvd - PM PEAK

LOCATION#: 020
NORTH / SOUTH: Harter Ave
EAST / WEST: Washington Blvd

QTD PROJ#: 100146
DATE: Tuesday, June 01, 2010
VICINITY: Culver City, CA

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	0	1	0	0	0	0	0	2	0	1	2	0	
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM													
4:15 PM													
4:30 PM	2	0	2	0	0	0	0	170	2	3	152	0	331
4:45 PM	7	0	6	0	0	0	0	171	5	4	161	0	354
5:00 PM	3	0	3	0	0	0	0	169	6	2	179	0	362
5:15 PM	4	0	5	0	0	0	0	178	5	6	181	0	379
5:30 PM	1	0	4	0	0	0	0	167	6	5	180	0	363
5:45 PM	2	0	3	0	0	0	0	168	8	1	172	0	354
6:00 PM	9	0	0	0	0	0	0	166	3	4	178	0	360
6:15 PM	1	0	4	0	0	0	0	148	1	1	176	0	331
6:30 PM													
6:45 PM													
VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	29	0	27	0	0	0	0	1337	36	26	1379	0	2834
P.H.V: 1	10	0	15	0	0	0	0	682	25	14	712	0	1458
P.H.F: 2	0.694	0.000	0.000	0.000	0.000	0.000	0.966	0.971	0.962				

(1) Peak Hour Volume (Peak Hour Begins At 500 PM)
(2) Peak Hour Factor (directional aggregate)



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9701 W Pico Blvd, Suite 205, Los Angeles, CA 90035
Phone: 310-341-0019 Fax: 310-807-9247 Info@QualityTrafficData.com

TRUCKS TURNING MOVEMENT COUNT

#020 Harter Ave & Washington Blvd - AM PEAK

LOCATION#: 020
NORTH / SOUTH: Harter Ave
EAST / WEST: Washington Blvd

QTD PROJ#: 100146
DATE: Tuesday, June 01, 2010
VICINITY: Culver City, CA

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	0	1	0	0	0	0	0	2	0	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	0	0	0	0	0	0	0	2	0	0	2	0	4
P.H.V: 1	0	0	0	0	0	0	0	2	0	0	1	0	3
P.H.F: 2	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.250	0.375				

(1) Peak Hour Volume (Peak Hour Begins At 7:15 AM)

(2) Peak Hour Factor (directional aggregate)



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TRUCKS TURNING MOVEMENT COUNT

#020 Harter Ave & Washington Blvd - PM PEAK

LOCATION#: 020
NORTH / SOUTH: Harter Ave
EAST / WEST: Washington Blvd

QTD PROJ#: 100146
DATE: Tuesday, June 01, 2010
VICINITY: Culver City, CA

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	0	1	0	0	0	0	0	2	0	1	2	0	
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM													
4:15 PM													
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 PM													
6:45 PM													
VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	0	0	0	0	0	0	0	0	0	0	1	0	1
P.H.V: 1	0	0	0	0	0	0	0	0	0	0	1	0	1
P.H.F: 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.250

- (1) Peak Hour Volume (Peak Hour Begins At 430 PM)
(2) Peak Hour Factor (directional aggregate)



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PEDESTRIAN CROSSWALK COUNTS

#020 Harter Ave & Washington Blvd - AM PEAK

LOCATION#: 020
NORTH / SOUTH: Harter Ave
EAST / WEST: Washington Blvd

QTD PROJ#: 100146
DATE: Tuesday, June 01, 2010
VICINITY: Culver City, CA

DIRECTION:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	TOTALS
6:00 AM					
6:15 AM					
6:30 AM					
6:45 AM					
7:00 AM	0	0	1	0	1
7:15 AM	0	0	0	1	1
7:30 AM	0	0	1	0	1
7:45 AM	0	0	3	1	4
8:00 AM	0	0	0	1	1
8:15 AM	0	0	2	3	5
8:30 AM	0	0	2	1	3
8:45 AM	0	0	0	0	
9:00 AM					
9:15 AM					
9:30 AM					
9:45 AM					
10:00 AM					
10:15 AM					
10:30 AM					
VOLUME STATS:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	
TOTAL:	0	0	9	7	16
P.H.V: 1	0	0	7	6	13
P.H.F: 2	0.000	0.000	0.583	0.500	0.650

(1) Peak Hour Volume (Peak hour begins at: 745 AM)
(2) Peak Hour Factor



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PEDESTRIAN CROSSWALK COUNTS

#020 Harter Ave & Washington Blvd - PM PEAK

LOCATION#: 020
NORTH / SOUTH: Harter Ave
EAST / WEST: Washington Blvd

QTD PROJ#: 100146
DATE: Tuesday, June 01, 2010
VICINITY: Culver City, CA

DIRECTION:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	TOTALS
4:00 PM					
4:15 PM					
4:30 PM	0	0	1	3	4
4:45 PM	0	1	0	2	3
5:00 PM	0	0	0	2	2
5:15 PM	0	0	3	0	3
5:30 PM	0	0	1	1	2
5:45 PM	0	0	0	1	1
6:00 PM	0	0	0	2	2
6:15 PM	0	0	3	1	4
6:30 PM					
6:45 PM					
VOLUME STATS:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	
TOTAL:	0	1	8	12	21
P.H.V: 1	0	1	4	7	12
P.H.F: 2	0.000	0.250	0.333	0.583	0.750

(1) Peak Hour Volume (Peak hour begins at: 430 PM)

(2) Peak Hour Factor



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Phone: 310-341-0019 Fax: 310-807-9247 info@QualityTrafficData.com

APPENDIX B

INTERSECTION ANALYSIS WORKSHEETS

Existing AM	Wed Jul 3, 2013 14:18:45	Page 1-1
Existing Conditions Chevron Station Project		
Scenario Report		
Scenario:	Existing AM	
Command:	Existing AM	
Volume:	Existing AM	
Geometry:	Existing	
Impact Fee:	Default Impact Fee	
Trip Generation:	None	
Trip Distribution:	None	
Paths:	Default Path	
Routes:	Default Route	
Configuration:	Existing	

Existing AM	Wed Jul 3, 2013 14:18:45	Page 2-1
Existing Conditions Chevron Station Project		
Impact Analysis Report Level Of Service		
Intersection	Base Del/ V/ LOS Veh C	Future Del/ V/ LOS Veh C
# 1 Sepulveda Blvd at I-405 NB Ram	C xxxxx 0.769	C xxxxx 0.769
# 2 Washington Pl at Sepulveda Blv	D xxxxx 0.829	D xxxxx 0.829
# 3 Sepulveda Blvd at Washington B	C xxxxx 0.766	C xxxxx 0.766
# 4 Washington Pl at Sawtelle Blvd	A xxxxx 0.586	A xxxxx 0.586
		Change in + 0.000 V/C + 0.000 V/C + 0.000 V/C + 0.000 V/C

Existing Conditions
Chevron Station Project

ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #1 Sepulveda Blvd at I-405 NB Ramps
 Level Of Service Computation Report

Cycle (sec): 100 Critical Vol./Cap.(X): 0.769
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 60 Level Of Service: C
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 0 0 2 0 1 1 0 1 0 0 0 0 1 0 0

Volume Module:
 Base Vol: 421 1050 0 0 455 377 474 1 55 2 2 3
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 421 1050 0 0 455 377 474 1 55 2 2 3
 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: 421 1050 0 0 455 377 474 1 55 2 2 3
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 421 1050 0 0 455 377 474 1 55 2 2 3
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 421 1050 0 0 455 377 474 1 55 2 2 3

Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 1.79 0.01 0.20 0.28 0.29 0.43
 Final Sat.: 1600 3200 0 0 3200 1600 2862 6 332 457 457 686

Capacity Analysis Module:
 Vol/Sat: 0.26 0.33 0.00 0.00 0.14 0.24 0.17 0.17 0.17 0.00 0.00 0.00
 Crit Moves: ****

Existing Conditions
Chevron Station Project

ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #2 Washington Pl at Sepulveda Blvd
 Level Of Service Computation Report

Cycle (sec): 100 Critical Vol./Cap.(X): 0.829
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 74 Level Of Service: D
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 0 1 0

Volume Module:
 Base Vol: 56 1239 9 40 378 105 187 521 68 29 461 171
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 56 1239 9 40 378 105 187 521 68 29 461 171
 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: 56 1239 9 40 378 105 187 521 68 29 461 171
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 56 1239 9 40 378 105 187 521 68 29 461 171
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 56 1239 9 40 378 105 187 521 68 29 461 171

Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.99 0.01 1.00 1.57 0.43 1.00 1.77 0.23 1.00 1.46 0.54
 Final Sat.: 1600 3177 23 1600 2504 696 1600 2831 369 1600 2334 866

Capacity Analysis Module:
 Vol/Sat: 0.04 0.39 0.39 0.03 0.15 0.15 0.12 0.18 0.18 0.02 0.20 0.20
 Crit Moves: ****

Existing Conditions
Chevron Station Project

Level Of Service Computation Report
ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Sepulveda Blvd at Washington Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.766
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 60 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Permitted	Include	Permitted	Include	Permitted	Include	Permitted	Include
Rights:	0	0	0	0	0	0	0	0
Min. Green:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Y+R:	1	0	1	0	1	0	1	0
Lanes:	1	0	1	0	1	0	1	0

Volume Module:

Base Vol:	121	833	105	101	367	65	183	748	97	73	467	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:	121	833	105	101	367	65	183	748	97	73	467	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:	121	833	105	101	367	65	183	748	97	73	467	77
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	121	833	105	101	367	65	183	748	97	73	467	77
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	121	833	105	101	367	65	183	748	97	73	467	77

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.78	0.22	1.00	1.70	0.30	1.00	1.77	0.23	1.00	1.72	0.28
Final Sat.:	1600	2842	358	1600	2719	481	1600	2833	367	1600	2747	453

Capacity Analysis Module:

Vol/Sat:	0.08	0.29	0.29	0.06	0.13	0.14	0.11	0.26	0.26	0.05	0.17	0.17
Crit Moves:	***	***	***	***	***	***	***	***	***	***	***	***

Existing Conditions
Chevron Station Project

Level Of Service Computation Report
ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Washington Pl at Sawtelle Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.586
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 39 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Permitted	Include	Permitted	Include	Permitted	Include	Permitted	Include
Rights:	0	0	0	0	0	0	0	0
Min. Green:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Y+R:	0	1	0	0	1	0	1	0
Lanes:	0	1	0	0	1	0	1	0

Volume Module:

Base Vol:	30	568	37	45	189	127	179	555	80	34	471	185
Growth Adj:	1.00	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	568	37	45	189	127	179	555	80	34	471	185
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	568	37	45	189	127	179	555	80	34	471	185
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	30	568	37	45	189	127	179	555	80	34	471	185
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	30	568	37	45	189	127	179	555	80	34	471	185

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.09	1.79	0.12	0.25	1.05	0.70	1.00	1.75	0.25	1.00	2.00	1.00
Final Sat.:	151	2862	186	399	1675	1126	1600	2797	403	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.20	0.20	0.03	0.11	0.11	0.11	0.20	0.20	0.02	0.15	0.12
Crit Moves:	***	***	***	***	***	***	***	***	***	***	***	***

Existing Conditions
Chevron Station Project

Scenario: Existing PM Scenario Report

Command: Existing PM
Volume: Existing PM
Geometry: Existing
Impact Fee: Default Impact Fee
Trip Generation: None
Trip Distribution: None
Paths: Default Path
Routes: Default Route
Configuration: Existing

Existing Conditions
Chevron Station ProjectImpact Analysis Report
Level Of Service

Intersection	Base Del/ LOS Veh C	V/ C	Future Del/ LOS Veh C	V/ C	Change in
# 1 Sepulveda Blvd at I-405 NB Ram	D xxxxx	0.895	D xxxxx	0.895	+ 0.000 V/C
# 2 Washington Pl at Sepulveda Blv	D xxxxx	0.823	D xxxxx	0.823	+ 0.000 V/C
# 3 Sepulveda Blvd at Washington B	D xxxxx	0.894	D xxxxx	0.894	+ 0.000 V/C
# 4 Washington Pl at Sawtelle Blvd	B xxxxx	0.695	B xxxxx	0.695	+ 0.000 V/C

Existing PM Wed Jul 3, 2013 14:19:40 Page 3-1

Existing Conditions
Chevron Station Project

Level Of Service Computation Report
ICU 1 (loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Sepulveda Blvd at I-405 NB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.895
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 98 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Permitted Permitted Permitted
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 0 1 1 0 0 0 0 0 0 0 0

Volume Module:

Base Vol: 220 1141 7 1 1247 157 750 0 93 2 1 4
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 220 1141 7 1 1247 157 750 0 93 2 1 4
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: 220 1141 7 1 1247 157 750 0 93 2 1 4
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 220 1141 7 1 1247 157 750 0 93 2 1 4
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 220 1141 7 1 1247 157 750 0 93 2 1 4

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.99 0.01 0.01 1.99 1.00 1.78 0.00 0.22 0.29 0.14 0.57
Final Sat.: 1600 3180 20 3 3197 1600 2847 0 353 457 229 914

Capacity Analysis Module:

Vol/Sat: 0.14 0.36 0.36 0.00 0.39 0.10 0.26 0.00 0.26 0.00 0.00 0.00
Crit Moves: ****

Existing PM Wed Jul 3, 2013 14:19:40 Page 4-1

Existing Conditions
Chevron Station Project

Level Of Service Computation Report
ICU 1 (loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Washington Pl at Sepulveda Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.823
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 72 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Permitted Permitted Permitted
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 0 1 1 0 0 1 0 1 0 1 0

Volume Module:

Base Vol: 62 1067 38 82 932 224 180 593 123 42 544 139
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 62 1067 38 82 932 224 180 593 123 42 544 139
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: 62 1067 38 82 932 224 180 593 123 42 544 139
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 62 1067 38 82 932 224 180 593 123 42 544 139
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 62 1067 38 82 932 224 180 593 123 42 544 139

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.93 0.07 1.00 1.61 0.39 1.00 1.66 0.34 1.00 1.59 0.41
Final Sat.: 1600 3090 110 1600 2580 620 1600 2650 550 1600 2849 651

Capacity Analysis Module:

Vol/Sat: 0.04 0.35 0.35 0.05 0.36 0.36 0.11 0.22 0.22 0.03 0.21 0.21
Crit Moves: ****

Existing Conditions
Chevron Station Project

ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Sepulveda Blvd at Washington Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.894
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 97 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 0

Volume Module:
Base Vol: 100 1035 135 134 1122 94 140 714 118 135 569 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: 100 1035 135 134 1122 94 140 714 118 135 569 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: 100 1035 135 134 1122 94 140 714 118 135 569 75
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 100 1035 135 134 1122 94 140 714 118 135 569 75
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 100 1035 135 134 1122 94 140 714 118 135 569 75

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.77 0.23 1.00 1.85 0.15 1.00 1.72 0.28 1.00 1.77 0.23
Final Sat.: 1600 2831 369 1600 2953 247 1600 2746 454 1600 2827 373

Capacity Analysis Module:
Vol/Sat: 0.06 0.37 0.37 0.08 0.38 0.38 0.09 0.26 0.26 0.08 0.20 0.20
Crit Moves: *****

Existing Conditions
Chevron Station Project

ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Washington Pl at Sawtelle Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.695
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 49 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 1 0 1 0 0 1 0 1 0 1 0 1 0 1 0

Volume Module:
Base Vol: 47 534 37 64 656 232 115 584 108 21 627 141
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 47 534 37 64 656 232 115 584 108 21 627 141
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: 47 534 37 64 656 232 115 584 108 21 627 141
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 47 534 37 64 656 232 115 584 108 21 627 141
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 47 534 37 64 656 232 115 584 108 21 627 141

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.15 1.73 0.12 0.13 1.38 0.49 1.00 1.69 0.31 1.00 2.00 1.00
Final Sat.: 243 2765 192 215 2205 780 1600 2701 499 1600 2200 1600

Capacity Analysis Module:
Vol/Sat: 0.03 0.19 0.19 0.04 0.30 0.30 0.07 0.22 0.22 0.01 0.20 0.09
Crit Moves: *****

Lanes, Volumes, Timings
1: Washington Blvd & Harter Ave

7/11/2013

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR	ø1	ø3	ø4	ø6	ø8
Lane Configurations	↑↑		↘	↑↑	↘	↗					
Volume (vph)	615	11	23	552	18	14					
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600					
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00					
Frt	0.997					0.850					
Flt Protected			0.950		0.950						
Satd. Flow (prot)	2971	0	1490	2980	1490	1333					
Flt Permitted			0.329		0.950						
Satd. Flow (perm)	2971	0	516	2980	1490	1333					
Right Turn on Red		Yes				Yes					
Satd. Flow (RTOR)	2					14					
Link Speed (mph)	30			30	30						
Link Distance (ft)	621			189	505						
Travel Time (s)	14.1			4.3	11.5						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	626	0	23	552	18	14					
Turn Type	NA		Perm	NA	NA	Prot					
Protected Phases	2			6 3	7	7	1	3	4	6	8
Permitted Phases			6 3								
Total Split (s)	22.0				20.0	20.0	8.0	20.0	40.0	30.0	20.0
Total Lost Time (s)	4.0				4.0	4.0					
Act Effct Green (s)	25.4		49.3	49.3	6.4	6.4					
Actuated g/C Ratio	0.42		0.81	0.81	0.10	0.10					
v/c Ratio	0.51		0.06	0.23	0.11	0.09					
Control Delay	19.2		0.4	0.3	30.7	17.1					
Queue Delay	0.0		0.0	0.2	0.0	0.0					
Total Delay	19.3		0.4	0.5	30.7	17.1					
LOS	B		A	A	C	B					
Approach Delay	19.3			0.5	24.7						
Approach LOS	B			A	C						

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 61

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 10.7

Intersection LOS: B

Intersection Capacity Utilization 32.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Washington Blvd & Harter Ave

#3 ↓ ø1 8 s	#1 #2 #3 ↑ ↑ ↑ ø2 22 s	#1 #2 #3 ↓ ↘ ↑ ø3 20 s	#2 ↗ ø4 40 s
#1 #2 #3 ↓ ↓ ↓ ø6 30 s			#1 #2 ↘ ↗ ø7 20 s
			#3 ↖ ø8 20 s

Existing AM

Lanes, Volumes, Timings
2: Washington PI & Tilden Ave

7/11/2013



Lane Group	EBL2	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER	SER2	ø1	ø4
Lane Configurations	↰	↰↰	↰		↰↰	↰↰	↰			↰		
Volume (vph)	44	557	23	0	629	569	613	0	0	64		
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600		
Lane Util. Factor	1.00	0.97	1.00	1.00	0.95	0.91	0.91	1.00	1.00	1.00		
Frt			0.850			0.955	0.850			0.865		
Flt Protected	0.950	0.950										
Satd. Flow (prot)	1490	2891	1333	0	2980	2726	1213	0	0	1357		
Flt Permitted	0.950	0.950										
Satd. Flow (perm)	1490	2891	1333	0	2980	2726	1213	0	0	1357		
Right Turn on Red			Yes							Yes		
Satd. Flow (RTOR)			61							672		
Link Speed (mph)		30			30	30		30				
Link Distance (ft)		802			189	157		433				
Travel Time (s)		18.2			4.3	3.6		9.8				
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Shared Lane Traffic (%)							40%					
Lane Group Flow (vph)	44	557	23	0	629	814	368	0	0	64		
Turn Type	Perm	NA	custom		NA	NA	Perm			custom		
Protected Phases		3	3		2	6				7	1	4
Permitted Phases	3		4				6					
Total Split (s)	20.0	20.0	20.0		22.0	30.0	30.0			20.0	8.0	40.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0	4.0			4.0		
Act Effct Green (s)	16.5	16.5	26.0		25.4	26.7	26.7			6.4		
Actuated g/C Ratio	0.27	0.27	0.43		0.42	0.44	0.44			0.10		
v/c Ratio	0.11	0.72	0.04		0.51	0.68	0.69			0.09		
Control Delay	22.0	29.6	0.4		8.7	7.6	13.8			0.2		
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0			0.0		
Total Delay	22.0	29.6	0.4		8.7	7.6	13.8			0.2		
LOS	C	C	A		A	A	B			A		
Approach Delay		28.0			8.7	9.5						
Approach LOS		C			A	A						

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 61

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 13.7

Intersection Capacity Utilization 52.0%

Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service A

Splits and Phases: 2: Washington PI & Tilden Ave

#3 ↰ ø1	#1 #2 #3 ↰ ↰ ↰ ø2	#1 #2 #3 ↰ ↰ ↰ ø3	#2 ↰ ø4
8 s	22 s	20 s	40 s
#1 #2 #3 ↰ ↰ ↰ ø6		#1 #2 ↰ ↰ ø7	#3 ↰ ø8
30 s		20 s	20 s

Existing AM

Synchro 8 Report

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Lanes, Volumes, Timings
3: Tilden Ave & Washington Blvd

7/11/2013

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR	ø2	ø3	ø4	ø7
Lane Configurations	↑↑	↑	↓	↑↑↑	↓					
Volume (vph)	1172	6	5	1174	8	8				
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600				
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	1.00				
Frt		0.850			0.932					
Flt Protected			0.950		0.976					
Satd. Flow (prot)	2980	1333	1490	4282	1427	0				
Flt Permitted			0.950		0.976					
Satd. Flow (perm)	2980	1333	1490	4282	1427	0				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)		5			8					
Link Speed (mph)	30			30	30					
Link Distance (ft)	157			302	333					
Travel Time (s)	3.6			6.9	7.6					
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	1172	6	5	1174	16	0				
Turn Type	NA	Over	Prot	NA	NA					
Protected Phases	2 3	8	1	6	8		2	3	4	7
Permitted Phases										
Total Split (s)		20.0	8.0	30.0	20.0		22.0	20.0	40.0	20.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					
Act Effect Green (s)	47.9	6.2	4.1	26.7	6.2					
Actuated g/C Ratio	0.79	0.10	0.07	0.44	0.10					
v/c Ratio	0.50	0.04	0.05	0.63	0.11					
Control Delay	2.8	26.5	33.0	17.3	23.9					
Queue Delay	0.1	0.0	0.0	0.0	0.0					
Total Delay	2.9	26.5	33.0	17.3	23.9					
LOS	A	C	C	B	C					
Approach Delay	3.0			17.3	23.9					
Approach LOS	A			B	C					

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 61

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 10.3

Intersection LOS: B

Intersection Capacity Utilization 48.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Tilden Ave & Washington Blvd

#3 ↓ ø1 8 s	#1 #2 #3 ↑ ↑ ↑ ø2 22 s	#1 #2 #3 ↓ ↓ ↓ ø3 20 s	#2 ↘ ø4 40 s
#1 #2 #3 ↓ ↓ ↓ ø6 30 s			#1 #2 ↘ ↘ ø7 20 s
			#3 ↘ ø8 20 s

Existing AM

Lanes, Volumes, Timings
1: Washington Blvd & Harter Ave

7/11/2013

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR	ø1	ø3	ø4	ø6	ø8
Lane Configurations	↑↑		↘	↑↑	↘	↗					
Volume (vph)	702	26	14	733	10	15					
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600					
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00					
Frt	0.995					0.850					
Flt Protected			0.950		0.950						
Satd. Flow (prot)	2965	0	1490	2980	1490	1333					
Flt Permitted			0.283		0.950						
Satd. Flow (perm)	2965	0	444	2980	1490	1333					
Right Turn on Red		Yes				Yes					
Satd. Flow (RTOR)	4					15					
Link Speed (mph)	30			30	30						
Link Distance (ft)	621			189	505						
Travel Time (s)	14.1			4.3	11.5						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	728	0	14	733	10	15					
Turn Type	NA		Perm	NA	NA	Prot					
Protected Phases	2			6 3	7	7	1	3	4	6	8
Permitted Phases			6 3								
Total Split (s)	22.0				20.0	20.0	8.0	20.0	40.0	30.0	20.0
Total Lost Time (s)	4.0				4.0	4.0					
Act Effect Green (s)	25.4		49.2	49.2	6.2	6.2					
Actuated g/C Ratio	0.42		0.81	0.81	0.10	0.10					
v/c Ratio	0.59		0.04	0.30	0.07	0.10					
Control Delay	20.9		0.2	0.2	30.4	17.2					
Queue Delay	0.1		0.0	0.4	0.0	0.0					
Total Delay	21.0		0.2	0.6	30.4	17.2					
LOS	C		A	A	C	B					
Approach Delay	21.0			0.6	22.5						
Approach LOS	C			A	C						

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 60.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 10.8

Intersection Capacity Utilization 34.1%

Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service A

Splits and Phases: 1: Washington Blvd & Harter Ave

#3 ↓ ø1	#1 #2 #3 ↑ ↑ ↑ ø2	#1 #2 #3 ↓ ↘ ↑ ø3	#2 ↗ ø4
8 s	22 s	20 s	40 s
#1 #2 #3 ↓ ↓ ↓ ø6		#1 #2 ↘ ↗ ø7	#3 ↖ ø8
30 s		20 s	20 s

Existing PM

Synchro 8 Report

Page 1

Lanes, Volumes, Timings
2: Washington PI & Tilden Ave

7/11/2013



Lane Group	EBL2	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER	SER2	ø1	ø4
Lane Configurations												
Volume (vph)	23	676	15	0	718	739	691	0	0	54		
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600		
Lane Util. Factor	1.00	0.97	1.00	1.00	0.95	0.91	0.91	1.00	1.00	1.00		
Fr't			0.850			0.962	0.850			0.865		
Flt Protected	0.950	0.950										
Satd. Flow (prot)	1490	2891	1333	0	2980	2746	1213	0	0	1357		
Flt Permitted	0.950	0.950										
Satd. Flow (perm)	1490	2891	1333	0	2980	2746	1213	0	0	1357		
Right Turn on Red			Yes							Yes		
Satd. Flow (RTOR)			61							664		
Link Speed (mph)		30			30	30		30				
Link Distance (ft)		802			189	157		433				
Travel Time (s)		18.2			4.3	3.6		9.8				
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Shared Lane Traffic (%)							36%					
Lane Group Flow (vph)	23	676	15	0	718	988	442	0	0	54		
Turn Type	Perm	NA	custom		NA	NA	Perm			custom		
Protected Phases		3	3		2	6				7	1	4
Permitted Phases	3		4				6					
Total Split (s)	20.0	20.0	20.0		22.0	30.0	30.0			20.0	8.0	40.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0	4.0			4.0		
Act Effct Green (s)	16.4	16.4	26.0		25.4	26.7	26.7			6.2		
Actuated g/C Ratio	0.27	0.27	0.43		0.42	0.44	0.44			0.10		
v/c Ratio	0.06	0.87	0.02		0.58	0.82	0.83			0.07		
Control Delay	21.8	38.8	0.1		10.1	12.7	20.6			0.2		
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0			0.0		
Total Delay	21.8	38.8	0.1		10.1	12.7	20.6			0.2		
LOS	C	D	A		B	B	C			A		
Approach Delay		37.5			10.1	15.2						
Approach LOS		D			B	B						

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 60.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 19.1

Intersection LOS: B

Intersection Capacity Utilization 62.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 2: Washington PI & Tilden Ave

#3 ø1	#1 #2 #3 ø2	#1 #2 #3 ø3	#2 ø4
8 s	22 s	20 s	40 s
#1 #2 #3 ø6			#1 #2 ø7
30 s			20 s
			#3 ø8
			20 s

Existing PM

Lanes, Volumes, Timings

3: Tilden Ave & Washington Blvd

7/11/2013



Lane Group	NBT	NBR	SBL	SBT	NWL	NWR	ø2	ø3	ø4	ø7
Lane Configurations	↑↑	↑	↓	↑↑↑	↓					
Volume (vph)	1379	7	8	1414	12	14				
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600				
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	1.00				
Frt		0.850			0.927					
Flt Protected			0.950		0.977					
Satd. Flow (prot)	2980	1333	1490	4282	1421	0				
Flt Permitted			0.950		0.977					
Satd. Flow (perm)	2980	1333	1490	4282	1421	0				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)		5			14					
Link Speed (mph)	30			30	30					
Link Distance (ft)	157			302	333					
Travel Time (s)	3.6			6.9	7.6					
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	1379	7	8	1414	26	0				
Turn Type	NA	Over	Prot	NA	NA					
Protected Phases	2 3	8	1	6	8		2	3	4	7
Permitted Phases										
Total Split (s)		20.0	8.0	30.0	20.0		22.0	20.0	40.0	20.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					
Act Effct Green (s)	47.9	6.4	4.1	26.7	6.4					
Actuated g/C Ratio	0.79	0.11	0.07	0.44	0.11					
v/c Ratio	0.59	0.05	0.08	0.75	0.16					
Control Delay	5.1	26.7	33.6	20.5	22.5					
Queue Delay	0.2	0.0	0.0	0.1	0.0					
Total Delay	5.3	26.7	33.6	20.5	22.5					
LOS	A	C	C	C	C					
Approach Delay	5.4			20.6	22.5					
Approach LOS	A			C	C					

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 60.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 13.2

Intersection Capacity Utilization 55.3%

Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service B

Splits and Phases: 3: Tilden Ave & Washington Blvd

#3 ↓ ø1	#1 #2 #3 ↑ ↑ ↑ ø2	#1 #2 #3 ↓ ↓ ↓ ø3	#2 ↓ ø4
8 s	22 s	20 s	40 s
#1 #2 #3 ↓ ↓ ↓ ø6		#1 #2 ↓ ↓ ø7	#3 ↓ ø8
30 s		20 s	20 s

Existing PM

Synchro 8 Report

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Scenario Report

2014 WP AM

Command: 2014 AM
 Volume: 2014 AM
 Geometry: Existing
 Impact Fee: Default Impact Fee
 Trip Generation: Project AM
 Trip Distribution: Project
 Paths: Default Path
 Routes: Default Route
 Configuration: 2014

Turning Movement Report

Project AM

Volume Type	Northbound	Southbound	Eastbound	Westbound	Total
	Left Thru Right	Left Thru Right	Left Thru Right	Left Thru Right	Volume
#1 Sepulveda Blvd at I-405 NB Ramps					
Base	425 1061	0 460 381	479 1 56	2 2	3 2868
Added	0 11	0 0 11	0 0	0 0	0 22
Cumula	5 35	0 0 49	0 0	0 0	0 89
Total	430 1107	0 0 520 381	479 1 56	2 2	3 2979
#2 Washington Pl at Sepulveda Blvd					
Base	57 1251	9 40 382	189 526 69	29 466	173 3297
Added	0 11	0 0 4	0 11	0 7	0 44
Cumula	13 12	0 8 26	15 11 44	12 0 26	18 185
Total	70 1274	9 48 412 121	211 570 81	36 503	191 3526
#3 Sepulveda Blvd at Washington Blvd					
Base	122 841	106 102 371	66 185 755	98 74 472	78 3269
Added	0 11	0 0 11	0 0	0 0	0 22
Cumula	2 25	39 0 27	0 0 19	2 28 13	0 155
Total	124 877	145 102 409	66 185 774	100 102 485	78 3446
#4 Washington Pl at Sawtelle Blvd					
Base	30 574	37 45 191	128 181 561	81 34 476	187 2525
Added	0 0	0 0 0	0 11	0 11	0 22
Cumula	0 0	0 7 0	0 0 55	0 0 54	0 116
Total	30 574	37 52 191 128	181 627 81	34 541	187 2663
#9 Sepulveda Blvd at South Driveway					
Base	0 0	0 0 0	0 0	0 0	0 0
Added	0 11	11 4 4	0 0	0 0	4 34
Total	0 11	11 4 4	0 0	0 0	4 34
#10 Sepulveda Blvd at North Driveway					
Base	0 0	0 0 0	0 0	0 0	0 0
Added	0 4	11 7 4	0 0	0 4	7 37
Total	0 4	11 7 4	0 0	0 4	7 37
#11 Washington Pl at West Driveway					
Base	0 0	0 0 0	0 0	0 0	0 0
Added	0 0	0 0 0	7 0 0	0 0	11 29
Total	0 0	0 0 0	7 0 0	0 0	11 29
#51 Washington Pl at East Driveway					
Base	0 0	0 0 0	0 0	0 0	0 0
Added	0 0	0 4 0	11 0 0	0 0	11 26
Total	0 0	0 4 0	11 0 0	0 0	11 26
#54 Washington Pl at Washington Blvd					
Base	0 0	0 0 0	0 0	0 0	0 0
Added	0 0	0 0 0	0 11	0 0	11 22
Total	0 0	0 0 0	0 11	0 0	11 22

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ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Washington Pl at Sepulveda Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.880

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 91 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted

Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 0 1 0

Volume Module:

Base Vol: 56 1239 9 40 378 105 187 521 68 29 461 171

Growth Adj: 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01

Initial Bse: 57 1251 9 40 382 106 189 526 69 29 466 173

Added Vol: 0 11 0 0 4 0 11 0 0 7 11 0

Cumulative: 13 12 0 8 26 15 11 44 12 0 26 18

Initial Fut: 70 1274 9 48 412 121 211 570 81 36 503 191

User Adj: 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

PHF Volume: 70 1274 9 48 412 121 211 570 81 36 503 191

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 70 1274 9 48 412 121 211 570 81 36 503 191

PCE Adj: 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

FinalVolume: 70 1274 9 48 412 121 211 570 81 36 503 191

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.99 0.01 1.00 1.55 0.45 1.00 1.75 0.25 1.00 1.45 0.55

Final Sat.: 1600 3177 23 1600 2473 727 1600 2803 397 1600 2320 880

Capacity Analysis Module:

Vol/Sat: 0.04 0.40 0.40 0.03 0.17 0.17 0.13 0.20 0.20 0.02 0.22 0.22

Crit Moves: ****

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ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Sepulveda Blvd at Washington Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.820

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 71 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted

Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 0 1 0

Volume Module:

Base Vol: 121 833 105 101 367 65 183 748 97 73 467 77

Growth Adj: 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01

Initial Bse: 122 841 106 102 371 66 185 755 98 74 472 78

Added Vol: 0 11 0 0 11 0 0 0 0 0 0 0

Cumulative: 2 25 39 0 27 0 0 19 2 28 13 0

Initial Fut: 124 877 145 102 409 66 185 774 100 102 485 78

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 124 877 145 102 409 66 185 774 100 102 485 78

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 124 877 145 102 409 66 185 774 100 102 485 78

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 124 877 145 102 409 66 185 774 100 102 485 78

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.72 0.28 1.00 1.72 0.28 1.00 1.77 0.23 1.00 1.72 0.28

Final Sat.: 1600 2746 454 1600 2757 443 1600 2834 366 1600 2758 442

Capacity Analysis Module:

Vol/Sat: 0.08 0.32 0.32 0.06 0.15 0.15 0.12 0.27 0.27 0.06 0.18 0.18

Crit Moves: ****

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Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #4 Washington Pl at Sawtelle Blvd
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.615
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 41 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Permitted	Include	Permitted	Include	Permitted	Include
Rights:						
Min. Green:	0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0			
Y+R:	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0		4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0			
Lanes:	0 1 0 1 0 0 1 0 1 0 1 0 1 0 2 0 1		1 0 1 1 0 1 0 1 1 0 1 0 2 0 1			

Volume Module:

Base Vol:	30 568 37 45 189 127 179 555 80 34 471 185
Growth Adj:	1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01
Initial Bse:	30 574 37 45 191 128 181 561 81 34 476 187
Added Vol:	0 0 0 0 0 0 0 0 0 0 0 0
Cumulative:	0 0 0 0 0 0 0 0 0 0 0 0
Initial Tot:	30 574 37 52 191 128 181 627 81 34 541 187
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:	30 574 37 52 191 128 181 627 81 34 541 187
Reduced Vol:	0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:	30 574 37 52 191 128 181 627 81 34 541 187
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 Volume:	30 574 37 52 191 128 181 627 81 34 541 187

Saturation Flow Module:

Sat/Lane:	1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:	0.09 1.79 0.12 0.28 1.03 0.69 1.00 1.77 0.23 1.00 2.00 1.00
Final Sat:	151 2862 186 452 1644 1105 1600 2834 366 1600 3200 1600

Capacity Analysis Module:

Vol/Sat:	0.02 0.20 0.20 0.03 0.12 0.12 0.11 0.22 0.22 0.02 0.17 0.12
Crit Moves:	****

Scenario Report

2014 WP PM

Command: 2014 PM
 Volume: 2014 PM
 Geometry: Existing
 Impact Fee: Default Impact Fee
 Trip Generation: Project PM
 Trip Distribution: Project
 Paths: Default Path
 Routes: Default Route
 Configuration: 2014

Turning Movement Report
 Project PM

Volume Type	Northbound	Southbound	Eastbound	Westbound	Total
	Left Thru Right	Left Thru Right	Left Thru Right	Left Thru Right	Left Thru Right Volume
#1 Sepulveda Blvd at I-405 NB Ramps					
Base	222 1152 7	1 1259 159	758 0 94	2 1	4 3659
Added	0 8 0	0 9 0	0 0 0	0 0 0	0 17
Cumula	10 69 0	0 60 0	0 0 0	0 0 0	0 139
Total	232 1229 7	1 1328 159	758 0 94	2 1	4 3815
#2 Washington Pl at Sepulveda Blvd					
Base	63 1078 38	83 941 226	182 599 124	42 549	140 4066
Added	0 9 0	0 3 0	9 0 0	5 8	0 34
Cumula	20 23 0	10 31 20	20 43 16	0 49	36 268
Total	83 1110 38	93 975 246	211 642 140	47 606	176 4368
#3 Sepulveda Blvd at Washington Blvd					
Base	101 1045 136	135 1133 95	141 721 119	136 575	76 4415
Added	0 9 0	0 8 0	0 0 0	0 0 0	0 17
Cumula	4 43 0	0 36 0	0 18 3	52 24	0 220
Total	105 1097 176	135 1177 95	141 739 122	188 599	76 4652
#4 Washington Pl at Sawtelle Blvd					
Base	47 539 37	65 663 234	116 590 109	21 633	142 3198
Added	0 0 0	0 0 0	9 0 0	0 8	0 17
Cumula	0 0 0	7 0 0	0 60 0	0 89	0 156
Total	47 539 37	72 663 234	116 659 109	21 730	142 3371
#9 Sepulveda Blvd at South Driveway					
Base	0 0 0	0 0 0	0 0 0	0 0 0	0 0
Added	0 9 9	4 3 0	0 0 0	0 0 0	3 28
Total	0 9 9	4 3 0	0 0 0	0 0 0	3 28
#10 Sepulveda Blvd at North Driveway					
Base	0 0 0	0 0 0	0 0 0	0 0 0	0 0
Added	0 3 9	5 4 0	0 0 0	3 0 5	29
Total	0 3 9	5 4 0	0 0 0	3 0 5	29
#11 Washington Pl at West Driveway					
Base	0 0 0	0 0 0	0 0 0	0 0 0	0 0
Added	0 0 0	0 0 5	0 0 0	0 8 9	22
Total	0 0 0	0 0 5	0 0 0	0 8 9	22
#51 Washington Pl at East Driveway					
Base	0 0 0	0 0 0	0 0 0	0 0 0	0 0
Added	0 0 0	3 0 8	0 0 0	0 9 0	20
Total	0 0 0	3 0 8	0 0 0	0 9 0	20
#54 Washington Pl at Washington Blvd					
Base	0 0 0	0 0 0	0 0 0	0 0 0	0 0
Added	0 0 0	0 0 0	0 8 0	0 9 0	17
Total	0 0 0	0 0 0	0 8 0	0 9 0	17

Impact Analysis Report
Level Of Service

Intersection	Base Del/ V/ LOS Veh C	Future Del/ V/ LOS Veh C	Change in
# 1 Sepulveda Blvd at I-405 NB Ram	E xxxxx 0.903	E xxxxx 0.931	+ 0.028 V/C
# 2 Washington Pl at Sepulveda Blv	D xxxxx 0.830	E xxxxx 0.910	+ 0.080 V/C
# 3 Sepulveda Blvd at Washington B	E xxxxx 0.902	E xxxxx 0.969	+ 0.068 V/C
# 4 Washington Pl at Sawtelle Blvd	C xxxxx 0.701	C xxxxx 0.733	+ 0.032 V/C

Level Of Service Computation Report
ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Sepulveda Blvd at I-405 NB Ramps

Cycle (sec):	100	Critical Vol./Cap. (X):	0.931
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	118	Level Of Service:	E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include	Include
Min. Green:	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R:	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes:	1 0 1 1 0 0 1 1 0 1 1 0 1 0 0 0	1 0 1 1 0 1 1 0 1 1 0 1 0 0 0 0	1 0 1 1 0 1 1 0 1 1 0 1 0 0 0 0	1 0 1 1 0 1 1 0 1 1 0 1 0 0 0 0	1 0 1 1 0 1 1 0 1 1 0 1 0 0 0 0

Volume Module:

Base Vol:	220 1141	7	1 1247	157	750	0	93	2	1	4
Growth Adj:	1.01 1.01	1.01	1.01 1.01	1.01 1.01	1.01 1.01	1.01 1.01	1.01 1.01	1.01 1.01	1.01 1.01	1.01 1.01
Initial Bse:	222 1152	7	1 1259	159	758	0	94	2	1	4
Added Vol:	0 8	0	0 9	0	0	0	0	0	0	0
Cumulative:	10 69	0	0 60	0	0	0	0	0	0	0
Initial Fut:	232 1229	7	1 1328	159	758	0	94	2	1	4
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 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 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Volume:	232 1229	7	1 1328	159	758	0	94	2	1	4
Reduct Vol:	0 0	0	0 0	0	0	0	0	0	0	0
Reduced Vol:	232 1229	7	1 1328	159	758	0	94	2	1	4
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 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 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Final Volume:	232 1229	7	1 1328	159	758	0	94	2	1	4

Saturation Flow Module:

Sat/Lane:	1600 1600	1600	1600 1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00 1.00	1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Lanes:	1.00 1.99	0.01	0.01 1.99	1.00	1.77 0.01	0.22	0.29 0.14	0.57		
Final Sat:	1600 3182	18	2 3198	1600	2847	0	353	457	229	914

Capacity Analysis Module:

Vol/Sat:	0.15 0.39	0.39	0.00 0.42	0.10	0.27 0.00	0.27	0.00 0.00	0.00	0.00	0.00
Crit Moves:	****	****	****	****	****	****	****	****	****	****

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ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Washington Pl at Sepulveda Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.910
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 105 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0

Volume Module:

Base Vol:	62 1067	38	82	932	224	180	593	123	42	544	139
Growth Adj:	1.01 1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	63 1078	38	83	941	226	182	599	124	42	549	140
Added Vol:	0 9	0	0	3	0	9	0	0	5	8	0
Cumulative:	20 23	0	10	31	20	20	43	16	0	49	36
Initial Fut:	83 1110	38	93	975	246	211	642	140	47	606	176
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:	83 1110	38	93	975	246	211	642	140	47	606	176
Reduced Vol:	0 0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	83 1110	38	93	975	246	211	642	140	47	606	176
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 Volume:	83 1110	38	93	975	246	211	642	140	47	606	176

Saturation Flow Module:

Sat/Lane:	1600 1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00 1.93	0.07	1.00	1.60	0.40	1.00	1.64	0.36	1.00	1.55	0.45
Final Sat:	1600 3093	107	1600	2555	645	1600	2626	574	1600	2479	721

Capacity Analysis Module:

Vol/Sat:	0.05 0.36	0.36	0.06 0.38	0.38	0.13 0.24	0.24	0.03 0.24	0.24	0.24	0.24	0.24
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****

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ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Sepulveda Blvd at Washington Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.969
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 153 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0

Volume Module:

Base Vol:	100 1035	135	134	1122	94	140	714	118	135	569	75
Growth Adj:	1.01 1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	101 1045	136	135	1133	95	141	721	119	136	575	76
Added Vol:	0 9	0	0	8	0	0	0	0	0	0	0
Cumulative:	4 43	40	0	36	0	18	3	52	24	0	0
Initial Fut:	105 1097	176	135	1177	95	141	739	122	188	599	76
User Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	105 1097	176	135	1177	95	141	739	122	188	599	76
Reduced Vol:	0 0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	105 1097	176	135	1177	95	141	739	122	188	599	76
PCE Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	105 1097	176	135	1177	95	141	739	122	188	599	76

Saturation Flow Module:

Sat/Lane:	1600 1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00 1.72	0.28	1.00	1.85	0.15	1.00	1.72	0.28	1.00	1.78	0.22
Final Sat:	1600 2757	443	1600	2961	239	1600	2746	454	1600	2841	359

Capacity Analysis Module:

Vol/Sat:	0.07 0.40	0.40	0.08 0.40	0.40	0.09 0.27	0.27	0.12 0.21	0.21	0.21	0.21	0.21
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****

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Level Of Service Computation Report

ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Washington Pl at Sawtelle Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.733

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 55 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted Permitted Permitted

Rights: Include Include Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 1 0 1 0 0 1 0 1 0 1 0 1 0 2 0 1

Volume Module:

Base Vol: 47 534 37 64 656 232 115 584 108 21 627 141

Growth Adj: 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01

Initial Bse: 47 539 37 65 663 234 116 590 109 21 633 142

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Cumulatve: 0 0 0 7 0 0 0 60 0 0 89 0

Initial Fnt: 47 539 37 72 663 234 116 659 109 21 730 142

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: 47 539 37 72 663 234 116 659 109 21 730 142

Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 47 539 37 72 663 234 116 659 109 21 730 142

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 Volume: 47 539 37 72 663 234 116 659 109 21 730 142

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.15 1.73 0.12 0.15 1.37 0.48 1.00 1.72 0.28 1.00 2.00 1.00

Final Sat: 243 2765 192 237 2189 774 1600 2745 455 1600 3200 1600

Capacity Analysis Module:

Vol/Sat: 0.03 0.20 0.20 0.04 0.30 0.30 0.07 0.24 0.24 0.01 0.23 0.09

Crit Moves: ****

Lanes, Volumes, Timings
1: Washington Blvd & Harter Ave

7/11/2013

	↑	↗	↘	↓	↖	↗					
Lane Group	NBT	NBR	SBL	SBT	NWL	NWR	ø1	ø3	ø4	ø6	ø8
Lane Configurations	↑↑		↘	↑↑	↘	↗					
Volume (vph)	679	11	23	599	18	14					
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600					
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00					
Frt	0.998					0.850					
Flt Protected			0.950		0.950						
Satd. Flow (prot)	2974	0	1490	2980	1490	1333					
Flt Permitted			0.300		0.950						
Satd. Flow (perm)	2974	0	471	2980	1490	1333					
Right Turn on Red		Yes				Yes					
Satd. Flow (RTOR)	2					14					
Link Speed (mph)	30			30	30						
Link Distance (ft)	621			189	505						
Travel Time (s)	14.1			4.3	11.5						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	690	0	23	599	18	14					
Turn Type	NA		Perm	NA	NA	Prot					
Protected Phases	2			6 3	7	7	1	3	4	6	8
Permitted Phases			6 3								
Total Split (s)	22.0				20.0	20.0	8.0	20.0	40.0	30.0	20.0
Total Lost Time (s)	4.0				4.0	4.0					
Act Effct Green (s)	25.4		49.3	49.3	6.4	6.4					
Actuated g/C Ratio	0.42		0.81	0.81	0.10	0.10					
v/c Ratio	0.56		0.06	0.25	0.11	0.09					
Control Delay	20.3		0.3	0.3	30.7	17.1					
Queue Delay	0.0		0.0	0.3	0.0	0.0					
Total Delay	20.4		0.3	0.5	30.7	17.1					
LOS	C		A	A	C	B					
Approach Delay	20.4			0.5	24.7						
Approach LOS	C			A	C						

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 61

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 11.3

Intersection Capacity Utilization 32.7%

Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service A

Splits and Phases: 1: Washington Blvd & Harter Ave

#3 ↓ ø1 8 s	#1 #2 #3 ↑ ↑ ↑ ø2 22 s	#1 #2 #3 ↓ ↗ ↑ ø3 20 s	#2 ↖ ø4 40 s
#1 #2 #3 ↓ ↓ ↓ ø6 30 s			#1 #2 ↗ ↖ ø7 20 s
			#3 ↘ ø8 20 s

OPENING YEAR 2014 WP AM

Lanes, Volumes, Timings
2: Washington PI & Tilden Ave

7/11/2013



Lane Group	EBL2	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER	SER2	Ø1	Ø4
Lane Configurations	↰	↰↰	↰		↰↰	↰↰	↰			↰		
Volume (vph)	44	626	23	0	693	616	674	0	0	65		
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600		
Lane Util. Factor	1.00	0.97	1.00	1.00	0.95	0.91	0.91	1.00	1.00	1.00		
Frt			0.850			0.954	0.850			0.865		
Flt Protected	0.950	0.950										
Satd. Flow (prot)	1490	2891	1333	0	2980	2724	1213	0	0	1357		
Flt Permitted	0.950	0.950										
Satd. Flow (perm)	1490	2891	1333	0	2980	2724	1213	0	0	1357		
Right Turn on Red			Yes							Yes		
Satd. Flow (RTOR)			61							666		
Link Speed (mph)		30			30	30		30				
Link Distance (ft)		802			189	157		433				
Travel Time (s)		18.2			4.3	3.6		9.8				
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Shared Lane Traffic (%)							41%					
Lane Group Flow (vph)	44	626	23	0	693	892	398	0	0	65		
Turn Type	Perm	NA	custom		NA	NA	Perm			custom		
Protected Phases		3	3		2	6				7	1	4
Permitted Phases	3		4				6					
Total Split (s)	20.0	20.0	20.0		22.0	30.0	30.0			20.0	8.0	40.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0	4.0			4.0		
Act Effct Green (s)	16.5	16.5	26.0		25.4	26.7	26.7			6.4		
Actuated g/C Ratio	0.27	0.27	0.43		0.42	0.44	0.44			0.10		
v/c Ratio	0.11	0.80	0.04		0.56	0.75	0.75			0.09		
Control Delay	22.0	34.1	0.4		9.8	10.1	16.3			0.2		
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0			0.0		
Total Delay	22.0	34.1	0.4		9.8	10.1	16.3			0.2		
LOS	C	C	A		A	B	B			A		
Approach Delay		32.2			9.8	12.0						
Approach LOS		C			A	B						

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 61

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 16.3

Intersection LOS: B

Intersection Capacity Utilization 56.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 2: Washington PI & Tilden Ave

#3 ↰ Ø1	#1 #2 #3 ↰ ↰ ↰ Ø2	#1 #2 #3 ↰ ↰ ↰ Ø3	#2 ↰ Ø4
8 s	22 s	20 s	40 s
#1 #2 #3 ↰ ↰ ↰ Ø6			#1 #2 ↰ ↰ Ø7
30 s			20 s

Lane Group	ø8
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	8
Permitted Phases	
Total Split (s)	20.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings
3: Tilden Ave & Washington Blvd

7/11/2013

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR	ø2	ø3	ø4	ø7
Lane Configurations	↑↑	↑	↓	↑↑↑	↓					
Volume (vph)	1313	6	5	1282	8	8				
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600				
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	1.00				
Frt		0.850			0.932					
Flt Protected			0.950		0.976					
Satd. Flow (prot)	2980	1333	1490	4282	1427	0				
Flt Permitted			0.950		0.976					
Satd. Flow (perm)	2980	1333	1490	4282	1427	0				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)		5			8					
Link Speed (mph)	30			30	30					
Link Distance (ft)	157			302	333					
Travel Time (s)	3.6			6.9	7.6					
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	1313	6	5	1282	16	0				
Turn Type	NA	Over	Prot	NA	NA					
Protected Phases	2 3	8	1	6	8		2	3	4	7
Permitted Phases										
Total Split (s)		20.0	8.0	30.0	20.0		22.0	20.0	40.0	20.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					
Act Effct Green (s)	47.9	6.2	4.1	26.7	6.2					
Actuated g/C Ratio	0.79	0.10	0.07	0.44	0.10					
v/c Ratio	0.56	0.04	0.05	0.68	0.11					
Control Delay	4.2	27.2	33.0	18.6	23.9					
Queue Delay	0.1	0.0	0.0	0.0	0.0					
Total Delay	4.3	27.2	33.0	18.6	23.9					
LOS	A	C	C	B	C					
Approach Delay	4.4			18.7	23.9					
Approach LOS	A			B	C					

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 61

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 11.5

Intersection LOS: B

Intersection Capacity Utilization 53.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Tilden Ave & Washington Blvd

#3 ↓ ø1	#1 #2 #3 ↑ ↑ ↑ ø2	#1 #2 #3 ↓ ↓ ↓ ø3	#2 ← ø4
8 s	22 s	20 s	40 s
#1 #2 #3 ↓ ↓ ↓ ø6		#1 #2 ← ↓ ø7	#3 ← ø8
30 s		20 s	20 s

Lanes, Volumes, Timings
1: Washington Blvd & Harter Ave

7/11/2013

	↑	↗	↘	↓	↖	↗					
Lane Group	NBT	NBR	SBL	SBT	NWL	NWR	ø1	ø3	ø4	ø6	ø8
Lane Configurations	↑↑		↘	↑↑	↘	↗					
Volume (vph)	767	26	14	816	10	15					
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600					
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00					
Frt	0.995					0.850					
Flt Protected			0.950		0.950						
Satd. Flow (prot)	2965	0	1490	2980	1490	1333					
Flt Permitted			0.256		0.950						
Satd. Flow (perm)	2965	0	402	2980	1490	1333					
Right Turn on Red		Yes				Yes					
Satd. Flow (RTOR)	3					15					
Link Speed (mph)	30			30	30						
Link Distance (ft)	621			189	505						
Travel Time (s)	14.1			4.3	11.5						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	793	0	14	816	10	15					
Turn Type	NA		Perm	NA	NA	Prot					
Protected Phases	2			6 3	7	7	1	3	4	6	8
Permitted Phases			6 3								
Total Split (s)	22.0				20.0	20.0	8.0	20.0	40.0	30.0	20.0
Total Lost Time (s)	4.0				4.0	4.0					
Act Effct Green (s)	25.4		49.2	49.2	6.2	6.2					
Actuated g/C Ratio	0.42		0.81	0.81	0.10	0.10					
v/c Ratio	0.64		0.04	0.34	0.07	0.10					
Control Delay	22.1		0.2	0.2	30.4	17.2					
Queue Delay	0.1		0.0	0.5	0.0	0.0					
Total Delay	22.2		0.2	0.7	30.4	17.2					
LOS	C		A	A	C	B					
Approach Delay	22.2			0.7	22.5						
Approach LOS	C			A	C						

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 60.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 11.3

Intersection LOS: B

Intersection Capacity Utilization 36.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Washington Blvd & Harter Ave

#3 ↓ ø1	#1 #2 #3 ↑ ↑ ↑ ø2	#1 #2 #3 ↓ ↗ ↑ ø3	#2 ↖ ø4
8 s	22 s	20 s	40 s
#1 #2 #3 ↓ ↓ ↓ ø6			#1 #2 ↖ ↗ ø7
30 s			20 s
			#3 ↖ ø8
			20 s

OPENING YEAR 2014 WP PM

Synchro 8 Report
Page 1

Lanes, Volumes, Timings
2: Washington PI & Tilden Ave

7/11/2013



Lane Group	EBL2	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER	SER2	Ø1	Ø4
Lane Configurations	↰	↰↰	↰		↰↰	↰↰	↰			↰		
Volume (vph)	23	744	15	0	783	822	792	0	0	54		
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600		
Lane Util. Factor	1.00	0.97	1.00	1.00	0.95	0.91	0.91	1.00	1.00	1.00		
Frt			0.850			0.961	0.850			0.865		
Flt Protected	0.950	0.950										
Satd. Flow (prot)	1490	2891	1333	0	2980	2744	1213	0	0	1357		
Flt Permitted	0.950	0.950										
Satd. Flow (perm)	1490	2891	1333	0	2980	2744	1213	0	0	1357		
Right Turn on Red			Yes							Yes		
Satd. Flow (RTOR)			61							657		
Link Speed (mph)		30			30	30		30				
Link Distance (ft)		802			189	157		433				
Travel Time (s)		18.2			4.3	3.6		9.8				
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Shared Lane Traffic (%)							37%					
Lane Group Flow (vph)	23	744	15	0	783	1115	499	0	0	54		
Turn Type	Perm	NA	custom		NA	NA	Perm			custom		
Protected Phases		3	3		2	6				7	1	4
Permitted Phases	3		4				6					
Total Split (s)	20.0	20.0	20.0		22.0	30.0	30.0			20.0	8.0	40.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0	4.0			4.0		
Act Effct Green (s)	16.4	16.4	26.0		25.4	26.7	26.7			6.2		
Actuated g/C Ratio	0.27	0.27	0.43		0.42	0.44	0.44			0.10		
v/c Ratio	0.06	0.95	0.02		0.63	0.93	0.94			0.07		
Control Delay	21.8	50.2	0.1		10.9	18.3	29.3			0.2		
Queue Delay	0.0	0.0	0.0		0.1	0.0	0.0			0.0		
Total Delay	21.8	50.2	0.1		11.0	18.3	29.3			0.2		
LOS	C	D	A		B	B	C			A		
Approach Delay		48.5			11.0	21.7						
Approach LOS		D			B	C						

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 60.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 25.2

Intersection Capacity Utilization 68.9%

Analysis Period (min) 15

Intersection LOS: C

ICU Level of Service C

Splits and Phases: 2: Washington PI & Tilden Ave

#3 ↰ Ø1	#1 #2 #3 ↰ ↰ ↰ Ø2	#1 #2 #3 ↰ ↰ ↰ Ø3	#2 ↰ Ø4
8 s	22 s	20 s	40 s
#1 #2 #3 ↰ ↰ ↰ Ø6		#1 #2 ↰ ↰ Ø7	#3 ↰ Ø8
30 s		20 s	20 s

Lane Group	ø8
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	8
Permitted Phases	
Total Split (s)	20.0
Total Lost Time (s)	
Act Effect Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

3: Tilden Ave & Washington Blvd

7/11/2013



Lane Group	NBT	NBR	SBL	SBT	NWL	NWR	ø2	ø3	ø4	ø7
Lane Configurations	↑↑	↑	↓	↑↑↑	↓					
Volume (vph)	1512	7	8	1598	12	14				
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600				
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	1.00				
Frt		0.850			0.927					
Flt Protected			0.950		0.977					
Satd. Flow (prot)	2980	1333	1490	4282	1421	0				
Flt Permitted			0.950		0.977					
Satd. Flow (perm)	2980	1333	1490	4282	1421	0				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)		5			14					
Link Speed (mph)	30			30	30					
Link Distance (ft)	157			302	333					
Travel Time (s)	3.6			6.9	7.6					
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	1512	7	8	1598	26	0				
Turn Type	NA	Over	Prot	NA	NA					
Protected Phases	2 3	8	1	6	8		2	3	4	7
Permitted Phases										
Total Split (s)		20.0	8.0	30.0	20.0		22.0	20.0	40.0	20.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					
Act Effct Green (s)	47.9	6.4	4.1	26.7	6.4					
Actuated g/C Ratio	0.79	0.11	0.07	0.44	0.11					
v/c Ratio	0.65	0.05	0.08	0.85	0.16					
Control Delay	6.5	26.7	33.6	24.7	22.5					
Queue Delay	0.2	0.0	0.0	0.2	0.0					
Total Delay	6.7	26.7	33.6	24.9	22.5					
LOS	A	C	C	C	C					
Approach Delay	6.8			24.9	22.5					
Approach LOS	A			C	C					

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 60.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 16.2

Intersection LOS: B

Intersection Capacity Utilization 59.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: Tilden Ave & Washington Blvd

#3 ↓ ø1	#1 ↑ ø2	#2 ↑ ø3	#3 ↑ ø4
8 s	22 s	20 s	40 s
#1 ↓ ø6	#2 ↓ ø7	#3 ↓ ø8	
30 s	20 s	20 s	

Existing Plus Project AM

Scenario Report

Scenario: Existing Plus Project AM

Command: Existing Plus Project AM

Volume: Existing AM

Geometry: Existing

Impact Fee:	Default Impact Fee
-------------	--------------------

Trip Generation: Project AM

Trip Distribution: Project

Paths: Default Path

Routes: Default Route

Configuration:

Existing Plus Project AM Thu Jul 11, 2013 18:21:59

Existing Plus Project AM

Trip Generation Report

Forecast for Project AM

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total % Of Trips	Total % Of Trips
1									
	Zone 1	1.00	Chevron Projec	44.00	44.00	44	44	88	100.0
	Subtotal					44	44	88	100.0

1	1.00 Chevron Projec	44.00	44.00	44	44	88	100.0
	Zone 1 Subtotal			44	44	88	100.0

Zone 1 Subtotal	44	44	88
Zone 1 Subtotal	44	44	88

TOTAL	44	44	88
100.0			100.0

Existing Plus Project AM
Trip Distribution Report

Percent Of Trips Chevron Project

Zone	To Gates		
	2	4	6 10
1	25.0	25.0	25.0 25.0

Existing Plus Project AM
Turning Movement Report
Project AM

Volume Type	Northbound		Southbound		Eastbound		Westbound		Total
	Left	Thru Right	Left	Thru Right	Left	Thru Right	Left	Thru Right	Volume
#1 Sepulveda Blvd at I-405 NB Ramps									
Base	421	1050	0	0	455	377	474	1	55
Added	0	11	0	0	11	0	0	0	0
Total	421	1061	0	0	466	377	474	1	55
#2 Washington Pl at Sepulveda Blvd									
Base	56	1239	9	40	378	105	187	521	68
Added	0	11	0	0	4	0	11	0	0
Total	56	1250	9	40	382	105	198	521	68
#3 Sepulveda Blvd at Washington Blvd									
Base	121	833	105	101	367	65	183	748	97
Added	0	11	0	0	11	0	0	0	0
Total	121	844	105	101	378	65	183	748	97
#4 Washington Pl at Sawtelle Blvd									
Base	30	568	37	45	189	127	179	555	80
Added	0	0	0	0	0	0	0	11	0
Total	30	568	37	45	189	127	179	566	80
#9 Sepulveda Blvd at South Driveway									
Base	0	0	0	0	0	0	0	0	0
Added	0	11	11	4	4	0	0	0	0
Total	0	11	11	4	4	0	0	0	0
#10 Sepulveda Blvd at North Driveway									
Base	0	0	0	0	0	0	0	0	0
Added	0	4	11	7	4	0	0	0	0
Total	0	4	11	7	4	0	0	0	0
#11 Washington Pl at West Driveway									
Base	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	7	0	0	0
Total	0	0	0	0	0	7	0	0	0
#51 Washington Pl at East Driveway									
Base	0	0	0	0	0	0	0	0	0
Added	0	0	0	4	0	11	0	0	0
Total	0	0	0	4	0	11	0	0	0
#54 Washington Pl at Washington Blvd									
Base	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	11	0	0
Total	0	0	0	0	0	0	11	0	0

Existing Plus Project AM

Impact Analysis Report
Level Of Service

Intersection	Base Del/ V/ LOS Veh C	Future Del/ V/ LOS Veh C	Change in
# 1 Sepulveda Blvd at I-405 NB Ram	C xxxxx 0.769	C xxxxx 0.769	+ 0.000 V/C
# 2 Washington Pl at Sepulveda Blv	D xxxxx 0.829	D xxxxx 0.843	+ 0.014 V/C
# 3 Sepulveda Blvd at Washington B	C xxxxx 0.766	C xxxxx 0.769	+ 0.003 V/C
# 4 Washington Pl at Sawtelle Blvd	A xxxxx 0.586	A xxxxx 0.589	+ 0.003 V/C

Existing Plus Project AM

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
 Intersection #1 Sepulveda Blvd at I-405 NB Ramps
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.769
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 60 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Permitted Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 0 0 2 0 1 1 0 1 0 0 0 0 1 0 0

Volume Module:

Base Vol: 421 1050 0 0 455 377 474 1 55 2 2 3
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 421 1050 0 0 455 377 474 1 55 2 2 3
 Added Vol: 0 11 0 0 11 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 421 1061 0 0 466 377 474 1 55 2 2 3
 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: 421 1061 0 0 466 377 474 1 55 2 2 3
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 421 1061 0 0 466 377 474 1 55 2 2 3
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 421 1061 0 0 466 377 474 1 55 2 2 3

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 1.79 0.01 0.20 0.28 0.29 0.43
 Final Sat.: 1600 3200 0 0 3200 1600 2862 6 332 457 686

Capacity Analysis Module:

Vol/Sat: 0.26 0.33 0.00 0.00 0.15 0.24 0.17 0.17 0.17 0.00 0.00 0.00
 Crit Moves: ****

Existing Plus Project AM

Level Of Service Computation Report
ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Washington Pl at Sepulveda Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.843
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 78 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 1 0 1 0 1 0 1 0 1 0

Volume Module:

Base Vol: 56 1239 9 40 378 105 187 521 68 29 461 171
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 56 1239 9 40 378 105 187 521 68 29 461 171
Added Vol: 0 11 0 0 4 0 11 0 0 7 11 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 56 1250 9 40 382 105 198 521 68 36 472 171
User Adj: 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
PHF Volume: 56 1250 9 40 382 105 198 521 68 36 472 171
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 56 1250 9 40 382 105 198 521 68 36 472 171
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 56 1250 9 40 382 105 198 521 68 36 472 171

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.99 0.01 1.00 1.57 0.43 1.00 1.77 0.23 1.00 1.47 0.53
Final Sat.: 1600 3177 23 1600 2510 690 1600 2831 369 1600 2349 851

Capacity Analysis Module:

Vol/Sat: 0.04 0.39 0.39 0.03 0.15 0.15 0.12 0.18 0.18 0.02 0.20 0.20
Crit Moves: *****

Existing Plus Project AM

Level Of Service Computation Report
ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Sepulveda Blvd at Washington Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.769
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 60 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 1 0 1 0 1 0 1 0 1 0

Volume Module:

Base Vol: 121 833 105 101 367 65 183 748 97 73 467 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
Initial Bse: 121 833 105 101 367 65 183 748 97 73 467 77
Added Vol: 0 11 0 0 11 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 121 844 105 101 378 65 183 748 97 73 467 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
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 121 844 105 101 378 65 183 748 97 73 467 77
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 121 844 105 101 378 65 183 748 97 73 467 77
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 121 844 105 101 378 65 183 748 97 73 467 77

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.78 0.22 1.00 1.71 0.29 1.00 1.77 0.23 1.00 1.72 0.28
Final Sat.: 1600 2846 354 1600 2730 470 1600 2833 367 1600 2747 453

Capacity Analysis Module:

Vol/Sat: 0.08 0.30 0.30 0.06 0.14 0.14 0.11 0.26 0.26 0.05 0.17 0.17
Crit Moves: *****

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Existing Plus Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Washington Pl at Sawtelle Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.589
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 39 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Permitted	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include	Include
Min. Green:	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0
Y+R:	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes:	0 1 0 1 0 0 1 0 1 0 1 0 1 0 2 0 1	0 1 0 1 0 0 1 0 1 0 1 0 1 0 2 0 1	0 1 0 1 0 0 1 0 1 0 1 0 1 0 2 0 1	0 1 0 1 0 0 1 0 1 0 1 0 1 0 2 0 1	0 1 0 1 0 0 1 0 1 0 1 0 1 0 2 0 1

Volume Module:
Base Vol: 30 568 37 45 189 127 179 555 80 34 471 185
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 30 568 37 45 189 127 179 555 80 34 471 185
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 30 568 37 45 189 127 179 566 80 34 482 185
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: 30 568 37 45 189 127 179 566 80 34 482 185
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 30 568 37 45 189 127 179 566 80 34 482 185
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 Volume: 30 568 37 45 189 127 179 566 80 34 482 185

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.09 1.79 0.12 0.25 1.05 0.70 1.00 1.75 0.25 1.00 2.00 1.00
Final Sat.: 151 2862 186 399 1675 1126 1600 2804 396 1600 3200 1600

Capacity Analysis Module:
Vol/Sat: 0.02 0.20 0.20 0.03 0.11 0.11 0.11 0.20 0.20 0.02 0.15 0.12
Crit Moves: ****

Existing Plus Project PM

Scenario Report
Existing Plus Project PM

Command: Existing Plus Project PM
Volume: Existing PM
Geometry: Existing
Impact Fee: Default Impact Fee
Trip Generation: Project PM
Trip Distribution: Project
Paths: Default Path
Routes: Default Route
Configuration: Existing

Existing Plus Project PM

Trip Generation Report

Forecast for Project PM

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total % Of Trips Total
1		1.00	Chevron Projec	35.00	33.00	35	33	68 100.0
	Zone 1 Subtotal					35	33	68 100.0
TOTAL								

Existing Plus Project PM

Trip Distribution Report

Percent Of Trips Chevron Project

Zone	To Gates			
	2	4	6	10
1	25.0	25.0	25.0	25.0

Existing Plus Project PM

Turning Movement Report
Project PM

Volume Type	Northbound		Southbound		Eastbound		Westbound		Total Volume				
	Left	Thru Right	Left	Thru Right	Left	Thru Right	Left	Thru Right					
#1 Sepulveda Blvd at I-405 NB Ramps													
Base	220	1141	7	1	1247	157	750	0	93	4	3623		
Added	0	8	0	0	9	0	0	0	0	0	17		
Total	220	1149	7	1	1256	157	750	0	93	2	3640		
#2 Washington Pl at Sepulveda Blvd													
Base	62	1067	38	82	932	224	180	593	123	42	544	1139	4026
Added	0	9	0	0	3	0	9	0	0	5	8	0	34
Total	62	1076	38	82	935	224	189	593	123	47	552	1139	4060
#3 Sepulveda Blvd at Washington Blvd													
Base	100	1035	135	134	1122	94	140	714	118	135	569	75	4371
Added	0	9	0	0	8	0	0	0	0	0	0	0	17
Total	100	1044	135	134	1130	94	140	714	118	135	569	75	4388
#4 Washington Pl at Sawtelle Blvd													
Base	47	534	37	64	656	232	115	584	108	21	627	141	3166
Added	0	0	0	0	0	0	0	9	0	0	8	0	17
Total	47	534	37	64	656	232	115	593	108	21	635	141	3183
#9 Sepulveda Blvd at South Driveway													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	9	9	4	3	0	0	0	0	0	0	3	28
Total	0	9	9	4	3	0	0	0	0	0	0	3	28
#10 Sepulveda Blvd at North Driveway													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	3	9	5	4	0	0	0	0	3	0	5	29
Total	0	3	9	5	4	0	0	0	0	3	0	5	29
#11 Washington Pl at West Driveway													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	5	0	0	0	0	8	9	22
Total	0	0	0	0	0	5	0	0	0	0	8	9	22
#51 Washington Pl at East Driveway													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	3	0	8	0	0	0	0	9	0	20
Total	0	0	0	3	0	8	0	0	0	0	9	0	20
#54 Washington Pl at Washington Blvd													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	8	0	0	9	0	17
Total	0	0	0	0	0	0	0	8	0	0	9	0	17

Existing Plus Project PM

Impact Analysis Report
Level Of Service

Intersection	Base Del/ V/ C	Future Del/ V/ C	Change in
# 1 Sepulveda Blvd at I-405 NB Ram	D xxxxx 0.895	LOS Veh C D xxxxx 0.898	+ 0.003 V/C
# 2 Washington Pl at Sepulveda Blv	D xxxxx 0.823	D xxxxx 0.833	+ 0.011 V/C
# 3 Sepulveda Blvd at Washington B	D xxxxx 0.894	D xxxxx 0.897	+ 0.003 V/C
# 4 Washington Pl at Sawtelle Blvd	B xxxxx 0.695	B xxxxx 0.697	+ 0.003 V/C

Existing Plus Project PM

Level Of Service Computation Report

ICU 1 (loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Sepulveda Blvd at I-405 NB Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.898
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 99 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Permitted Permitted Permitted Permitted Permitted

Rights: Include Include Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 0 1 0 1 0 1 0 1 0 1 0 1 0 0

Volume Module: 220 1141 7 1 1247 157 750 0 93 2 1 4

Base Vol: 220 1141 7 1 1247 157 750 0 93 2 1 4

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 220 1141 7 1 1247 157 750 0 93 2 1 4

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 220 1149 7 1 1256 157 750 0 93 2 1 4

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: 220 1149 7 1 1256 157 750 0 93 2 1 4

Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Volume: 220 1149 7 1 1256 157 750 0 93 2 1 4

Saturation Flow Module: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.99 0.01 0.01 1.99 1.00 1.78 0.00 0.22 0.29 0.14 0.57

Final Sat.: 1600 3181 19 3 3197 1600 2847 0 353 457 229 914

Capacity Analysis Module: Vol/Sat: 0.14 0.36 0.36 0.00 0.39 0.10 0.26 0.00 0.26 0.00 0.00 0.00

Crit Moves: ****

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Existing Plus Project PM

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Washington Pl at Sepulveda Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.833

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 75 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted Permitted

Rights: Include Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 0

Volume Module:

Base Vol: 62 1067 38 82 932 224 180 593 123 42 544 139

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 62 1067 38 82 932 224 180 593 123 42 544 139

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 62 1076 38 82 935 224 189 593 123 47 552 139

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: 62 1076 38 82 935 224 189 593 123 47 552 139

Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 62 1076 38 82 935 224 189 593 123 47 552 139

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 62 1076 38 82 935 224 189 593 123 47 552 139

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.93 0.07 1.00 1.61 0.39 1.00 1.66 0.34 1.00 1.60 0.40

Final Sat.: 1600 3091 109 1600 2582 618 1600 2650 550 1600 2556 644

Capacity Analysis Module:

Vol/Sat: 0.04 0.35 0.35 0.05 0.36 0.36 0.12 0.22 0.22 0.03 0.22 0.22

Crit Moves: ****

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Existing Plus Project PM

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Sepulveda Blvd at Washington Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.897

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 98 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted Permitted

Rights: Include Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 0

Volume Module:

Base Vol: 100 1035 135 134 1122 94 140 714 118 135 569 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: 100 1035 135 134 1122 94 140 714 118 135 569 75

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 100 1044 135 134 1130 94 140 714 118 135 569 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: 100 1044 135 134 1130 94 140 714 118 135 569 75

Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 100 1044 135 134 1130 94 140 714 118 135 569 75

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 100 1044 135 134 1130 94 140 714 118 135 569 75

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.77 0.23 1.00 1.85 0.15 1.00 1.72 0.28 1.00 1.77 0.23

Final Sat.: 1600 2834 366 1600 2954 246 1600 2746 454 1600 2827 373

Capacity Analysis Module:

Vol/Sat: 0.06 0.37 0.37 0.08 0.38 0.38 0.09 0.26 0.26 0.08 0.20 0.20

Crit Moves: ****

Existing Plus Project PM

Level Of Service Computation Report

ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #4 Washington Pl at Sawtelle Blvd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.697
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 50 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 1 0 1 0 0 1 0 1 0 1 0 1 0 1 0 2 0 1

Volume Module:
 Base Vol: 47 534 37 64 656 232 115 584 108 21 627 141
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 47 534 37 64 656 232 115 584 108 21 627 141
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 47 534 37 64 656 232 115 593 108 21 635 141
 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 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 1.00 1.00 1.00 1.00
 PHF Volume: 47 534 37 64 656 232 115 593 108 21 635 141
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 47 534 37 64 656 232 115 593 108 21 635 141
 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 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 1.00 1.00 1.00 1.00
 Final Volume: 47 534 37 64 656 232 115 593 108 21 635 141

Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.15 1.73 0.12 0.13 1.38 0.49 1.00 1.69 0.31 1.00 2.00 1.00
 Final Sat.: 243 2765 192 215 2205 780 1600 2707 493 1600 3200 1600

Capacity Analysis Module:
 Vol/Sat: 0.03 0.19 0.19 0.04 0.30 0.30 0.07 0.22 0.22 0.01 0.20 0.09
 Crit Moves: ****

Lanes, Volumes, Timings
1: Washington Blvd & Harter Ave

7/11/2013

	↑	↶	↷	↓	↶	↷					
Lane Group	NBT	NBR	SBL	SBT	NWL	NWR	ø1	ø3	ø4	ø6	ø8
Lane Configurations	↑↑		↶	↑↑	↶	↷					
Volume (vph)	615	11	23	552	18	14					
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600					
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00					
Frt	0.997					0.850					
Flt Protected			0.950		0.950						
Satd. Flow (prot)	2971	0	1490	2980	1490	1333					
Flt Permitted			0.329		0.950						
Satd. Flow (perm)	2971	0	516	2980	1490	1333					
Right Turn on Red		Yes				Yes					
Satd. Flow (RTOR)	2					14					
Link Speed (mph)	30			30	30						
Link Distance (ft)	621			189	505						
Travel Time (s)	14.1			4.3	11.5						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	626	0	23	552	18	14					
Turn Type	NA		Perm	NA	NA	Prot					
Protected Phases	2			6 3	7	7	1	3	4	6	8
Permitted Phases			6 3								
Total Split (s)	22.0				20.0	20.0	8.0	20.0	40.0	30.0	20.0
Total Lost Time (s)	4.0				4.0	4.0					
Act Effct Green (s)	25.4		49.3	49.3	6.4	6.4					
Actuated g/C Ratio	0.42		0.81	0.81	0.10	0.10					
v/c Ratio	0.51		0.06	0.23	0.11	0.09					
Control Delay	19.2		0.4	0.3	30.7	17.1					
Queue Delay	0.0		0.0	0.2	0.0	0.0					
Total Delay	19.3		0.4	0.5	30.7	17.1					
LOS	B		A	A	C	B					
Approach Delay	19.3			0.5	24.7						
Approach LOS	B			A	C						

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 61

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 10.7

Intersection LOS: B

Intersection Capacity Utilization 32.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Washington Blvd & Harter Ave

#3 ↶ ø1	#1 #2 #3 ↑ ↑ ↑ ø2	#1 #2 #3 ↓ ↶ ↑ ø3	#2 ↶ ø4
8 s	22 s	20 s	40 s
#1 #2 #3 ↓ ↓ ↓ ø6			#1 #2 ↶ ↶ ø7
30 s			20 s
			#3 ↶ ø8
			20 s

Existing Plus Project AM

Synchro 8 Report
Page 1

Lanes, Volumes, Timings

2: Washington PI & Tilden Ave

7/11/2013



Lane Group	EBL2	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER	SER2	ø1	ø4
Lane Configurations												
Volume (vph)	44	568	23	0	629	569	624	0	0	64		
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600		
Lane Util. Factor	1.00	0.97	1.00	1.00	0.95	0.91	0.91	1.00	1.00	1.00		
Frt			0.850			0.953	0.850			0.865		
Flt Protected	0.950	0.950										
Satd. Flow (prot)	1490	2891	1333	0	2980	2721	1213	0	0	1357		
Flt Permitted	0.950	0.950										
Satd. Flow (perm)	1490	2891	1333	0	2980	2721	1213	0	0	1357		
Right Turn on Red			Yes							Yes		
Satd. Flow (RTOR)			61							671		
Link Speed (mph)		30			30	30		30				
Link Distance (ft)		802			189	157		433				
Travel Time (s)		18.2			4.3	3.6		9.8				
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Shared Lane Traffic (%)							41%					
Lane Group Flow (vph)	44	568	23	0	629	825	368	0	0	64		
Turn Type	Perm	NA	custom		NA	NA	Perm			custom		
Protected Phases		3	3		2	6				7	1	4
Permitted Phases	3		4				6					
Total Split (s)	20.0	20.0	20.0		22.0	30.0	30.0			20.0	8.0	40.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0	4.0			4.0		
Act Effct Green (s)	16.5	16.5	26.0		25.4	26.7	26.7			6.4		
Actuated g/C Ratio	0.27	0.27	0.43		0.42	0.44	0.44			0.10		
v/c Ratio	0.11	0.73	0.04		0.51	0.69	0.69			0.09		
Control Delay	22.0	30.2	0.4		8.7	8.0	13.7			0.2		
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0			0.0		
Total Delay	22.0	30.2	0.4		8.7	8.0	13.7			0.2		
LOS	C	C	A		A	A	B			A		
Approach Delay		28.5			8.7	9.8						
Approach LOS		C			A	A						

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 61
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 14.0
 Intersection Capacity Utilization 52.5%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 2: Washington PI & Tilden Ave

#3 	#1 #2 #3 	#1 #2 #3 	#2
8 s	22 s	20 s	40 s
#1 #2 #3 		#1 #2 	#3
30 s		20 s	20 s

Lanes, Volumes, Timings
3: Tilden Ave & Washington Blvd

7/11/2013

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR	ø2	ø3	ø4	ø7
Lane Configurations	↑↑	↑	↓	↑↑↑	↓					
Volume (vph)	1183	6	5	1185	8	8				
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600				
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	1.00				
Frt		0.850			0.932					
Flt Protected			0.950		0.976					
Satd. Flow (prot)	2980	1333	1490	4282	1427	0				
Flt Permitted			0.950		0.976					
Satd. Flow (perm)	2980	1333	1490	4282	1427	0				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)		5			8					
Link Speed (mph)	30			30	30					
Link Distance (ft)	157			302	333					
Travel Time (s)	3.6			6.9	7.6					
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	1183	6	5	1185	16	0				
Turn Type	NA	Over	Prot	NA	NA					
Protected Phases	2 3	8	1	6	8		2	3	4	7
Permitted Phases										
Total Split (s)		20.0	8.0	30.0	20.0		22.0	20.0	40.0	20.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					
Act Effct Green (s)	47.9	6.2	4.1	26.7	6.2					
Actuated g/C Ratio	0.79	0.10	0.07	0.44	0.10					
v/c Ratio	0.51	0.04	0.05	0.63	0.11					
Control Delay	2.9	26.8	33.0	17.3	23.9					
Queue Delay	0.1	0.0	0.0	0.0	0.0					
Total Delay	3.1	26.8	33.0	17.4	23.9					
LOS	A	C	C	B	C					
Approach Delay	3.2			17.4	23.9					
Approach LOS	A			B	C					

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 61

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 10.4

Intersection LOS: B

Intersection Capacity Utilization 48.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Tilden Ave & Washington Blvd

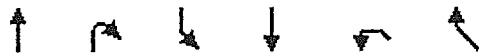
#3 ↓ ø1 8 s	#1 #2 #3 ↑ ↑ ↑ ø2 22 s	#1 #2 #3 ↓ ↓ ↓ ø3 20 s	#2 ↔ ø4 40 s
#1 #2 #3 ↓ ↓ ↓ ø6 30 s			#1 #2 ↔ ø7 20 s
			#3 ↔ ø8 20 s

Existing Plus Project AM

Synchro 8 Report
Page 4

Lanes, Volumes, Timings
1: Washington Blvd & Harter Ave

7/11/2013



Lane Group	NBT	NBR	SBL	SBT	NWL	NWR	ø1	ø3	ø4	ø6	ø8
Lane Configurations	↑↑		↓	↑↑	↓	↑					
Volume (vph)	702	26	14	733	10	15					
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600					
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00					
Frt	0.995					0.850					
Flt Protected			0.950		0.950						
Satd. Flow (prot)	2965	0	1490	2980	1490	1333					
Flt Permitted			0.283		0.950						
Satd. Flow (perm)	2965	0	444	2980	1490	1333					
Right Turn on Red		Yes				Yes					
Satd. Flow (RTOR)	4					15					
Link Speed (mph)	30			30	30						
Link Distance (ft)	621			189	505						
Travel Time (s)	14.1			4.3	11.5						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	728	0	14	733	10	15					
Turn Type	NA		Perm	NA	NA	Prot					
Protected Phases	2			6 3	7	7	1	3	4	6	8
Permitted Phases			6 3								
Total Split (s)	22.0				20.0	20.0	8.0	20.0	40.0	30.0	20.0
Total Lost Time (s)	4.0				4.0	4.0					
Act Effct Green (s)	25.4		49.2	49.2	6.2	6.2					
Actuated g/C Ratio	0.42		0.81	0.81	0.10	0.10					
v/c Ratio	0.59		0.04	0.30	0.07	0.10					
Control Delay	20.9		0.2	0.2	30.4	17.2					
Queue Delay	0.1		0.0	0.4	0.0	0.0					
Total Delay	21.0		0.2	0.6	30.4	17.2					
LOS	C		A	A	C	B					
Approach Delay	21.0			0.6	22.5						
Approach LOS	C			A	C						

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 60.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 10.8

Intersection Capacity Utilization 34.1%

Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service A

Splits and Phases: 1: Washington Blvd & Harter Ave

#3 ↓ ø1	#1 ↑ #2 ↑ #3 ↑ ø2	#1 ↓ #2 ↓ #3 ↑ ø3	#2 ø4
8 s	22 s	20 s	40 s
#1 ↓ #2 ↓ #3 ↓ ø6		#1 ↓ #2 ↓ ø7	#3 ø8
30 s		20 s	20 s

Lanes, Volumes, Timings
2: Washington Pl & Tilden Ave

7/11/2013



Lane Group	EBL2	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER	SER2	Ø1	Ø4
Lane Configurations												
Volume (vph)	23	684	15	0	718	739	700	0	0	54		
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600		
Lane Util. Factor	1.00	0.97	1.00	1.00	0.95	0.91	0.91	1.00	1.00	1.00		
Fr't			0.850			0.961	0.850			0.865		
Flt Protected	0.950	0.950										
Satd. Flow (prot)	1490	2891	1333	0	2980	2744	1213	0	0	1357		
Flt Permitted	0.950	0.950										
Satd. Flow (perm)	1490	2891	1333	0	2980	2744	1213	0	0	1357		
Right Turn on Red			Yes							Yes		
Satd. Flow (RTOR)			61							663		
Link Speed (mph)		30			30	30		30				
Link Distance (ft)		802			189	157		433				
Travel Time (s)		18.2			4.3	3.6		9.8				
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Shared Lane Traffic (%)							37%					
Lane Group Flow (vph)	23	684	15	0	718	998	441	0	0	54		
Turn Type	Perm	NA	custom		NA	NA	Perm			custom		
Protected Phases		3	3		2	6				7	1	4
Permitted Phases	3		4				6					
Total Split (s)	20.0	20.0	20.0		22.0	30.0	30.0			20.0	8.0	40.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0	4.0			4.0		
Act Effct Green (s)	16.4	16.4	26.0		25.4	26.7	26.7			6.2		
Actuated g/C Ratio	0.27	0.27	0.43		0.42	0.44	0.44			0.10		
v/c Ratio	0.06	0.88	0.02		0.58	0.83	0.83			0.07		
Control Delay	21.8	39.8	0.1		10.1	13.2	20.4			0.2		
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0			0.0		
Total Delay	21.8	39.8	0.1		10.1	13.2	20.4			0.2		
LOS	C	D	A		B	B	C			A		
Approach Delay		38.4			10.1	15.4						
Approach LOS		D			B	B						

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 60.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 19.5

Intersection LOS: B

Intersection Capacity Utilization 62.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 2: Washington Pl & Tilden Ave

#3 Ø1	#1 #2 #3 Ø2	#1 #2 #3 Ø3	#2 Ø4
8 s	22 s	20 s	40 s
#1 #2 #3 Ø6			#1 #2 Ø7
30 s			20 s
			#3 Ø8
			20 s

Existing Plus Project PM

Synchro 8 Report
Page 2

Lanes, Volumes, Timings

3: Tilden Ave & Washington Blvd

7/11/2013



Lane Group	NBT	NBR	SBL	SBT	NWL	NWR	ø2	ø3	ø4	ø7
Lane Configurations	↑↑	↑	↓	↑↑↑	↓					
Volume (vph)	1387	7	8	1423	12	14				
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600				
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	1.00				
Frt		0.850			0.927					
Flt Protected			0.950		0.977					
Satd. Flow (prot)	2980	1333	1490	4282	1421	0				
Flt Permitted			0.950		0.977					
Satd. Flow (perm)	2980	1333	1490	4282	1421	0				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)		5			14					
Link Speed (mph)	30			30	30					
Link Distance (ft)	157			302	333					
Travel Time (s)	3.6			6.9	7.6					
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	1387	7	8	1423	26	0				
Turn Type	NA	Over	Prot	NA	NA					
Protected Phases	2 3	8	1	6	8		2	3	4	7
Permitted Phases										
Total Split (s)		20.0	8.0	30.0	20.0		22.0	20.0	40.0	20.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					
Act Effct Green (s)	47.9	6.4	4.1	26.7	6.4					
Actuated g/C Ratio	0.79	0.11	0.07	0.44	0.11					
v/c Ratio	0.59	0.05	0.08	0.76	0.16					
Control Delay	5.3	26.6	33.6	20.6	22.5					
Queue Delay	0.2	0.0	0.0	0.1	0.0					
Total Delay	5.4	26.6	33.6	20.7	22.5					
LOS	A	C	C	C	C					
Approach Delay	5.5			20.8	22.5					
Approach LOS	A			C	C					

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 60.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 13.3

Intersection Capacity Utilization 55.5%

Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service B

Splits and Phases: 3: Tilden Ave & Washington Blvd

#3 ↓ ø1	#1 #2 #3 ↑ ↑ ↑ ø2	#1 #2 #3 ↓ ↓ ↓ ø3	#2 ← ø4
8 s	22 s	20 s	40 s
#1 #2 #3 ↓ ↓ ↓ ø6		#1 #2 ↓ ↓ ø7	#3 ↓ ø8
30 s		20 s	20 s

Scenario Report

Scenario: 2014 AM

Command: 2014 AM
 Volume: 2014 AM
 Geometry: Existing
 Impact Fee: Default Impact Fee
 Trip Generation: None
 Trip Distribution: None
 Paths: Default Path
 Routes: Default Route
 Configuration: 2014

Turning Movement Report
 Project PM

Volume Type	Northbound	Southbound	Eastbound	Westbound	Total
	Left Thru Right	Left Thru Right	Left Thru Right	Left Thru Right	Volume
#1 Sepulveda Blvd at I-405 NB Ramps					
Base	425 1061	0 0 460 381	479 1 56	2 2	3 2868
Added	0 0	0 0 0 0	0 0	0 0	0 0
Cumula	5 35	0 0 49 0	0 0	0 0	0 89
Total	430 1095	0 0 509 381	479 1 56	2 2	3 2957
#2 Washington Pl at Sepulveda Blvd					
Base	57 1251	9 40 382	189 526 69	29 466	173 3297
Added	0 0	0 0 0 0	0 0	0 0	0 0
Cumula	13 12	0 8 26 15	11 44	0 26	18 185
Total	70 1263	9 48 408 121	200 570 81	29 492	191 3482
#3 Sepulveda Blvd at Washington Blvd					
Base	122 841	106 102 371 66	185 755 98	74 472	78 3269
Added	0 0	0 0 0 0	0 0	0 0	0 0
Cumula	2 25	39 0 27 0	0 19 2	28 13	0 155
Total	124 866	145 102 398 66	185 774 100	102 485	78 3424
#4 Washington Pl at Sawtelle Blvd					
Base	30 574	37 45 191 128	181 561 81	34 476	187 2525
Added	0 0	0 0 0 0	0 0	0 0	0 0
Cumula	0 0	0 7 0 0	0 55 0	0 54	0 116
Total	30 574	37 52 191 128	181 616 81	34 530	187 2641
#9 Sepulveda Blvd at South Driveway					
Base	0 0	0 0 0 0	0 0	0 0	0 0
Added	0 0	0 0 0 0	0 0	0 0	0 0
Total	0 0	0 0 0 0	0 0	0 0	0 0
#10 Sepulveda Blvd at North Driveway					
Base	0 0	0 0 0 0	0 0	0 0	0 0
Added	0 0	0 0 0 0	0 0	0 0	0 0
Total	0 0	0 0 0 0	0 0	0 0	0 0
#11 Washington Pl at West Driveway					
Base	0 0	0 0 0 0	0 0	0 0	0 0
Added	0 0	0 0 0 0	0 0	0 0	0 0
Total	0 0	0 0 0 0	0 0	0 0	0 0
#51 Washington Pl at East Driveway					
Base	0 0	0 0 0 0	0 0	0 0	0 0
Added	0 0	0 0 0 0	0 0	0 0	0 0
Total	0 0	0 0 0 0	0 0	0 0	0 0
#54 Washington Pl at Washington Blvd					
Base	0 0	0 0 0 0	0 0	0 0	0 0
Added	0 0	0 0 0 0	0 0	0 0	0 0
Total	0 0	0 0 0 0	0 0	0 0	0 0

ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)
 Intersection #2 Washington Pl at Sepulveda Blvd
 Level of Service Computation Report

Cycle (sec): 100 Critical Vol./Cap. (X): 0.866
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 85 Level of Service: D
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Include Permitted Include
 Rights: Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0

Volume Module:
 Base Vol: 56 1239 9 40 378 105 187 521 68 29 461 171
 Growth Adj: 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01
 Initial Bse: 57 1251 9 40 382 106 189 526 69 29 466 173
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Cumulative: 13 12 0 8 26 15 11 44 12 0 26 18
 Initial Fut: 70 1263 9 48 408 121 200 570 81 29 492 191
 User Adj: 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
 PHF Volume: 70 1263 9 48 408 121 200 570 81 29 492 191
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 70 1263 9 48 408 121 200 570 81 29 492 191
 PCE Adj: 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
 FinalVolume: 70 1263 9 48 408 121 200 570 81 29 492 191

Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.99 0.01 1.00 1.54 0.46 1.00 1.75 0.25 1.00 1.44 0.56
 Final Sat.: 1600 3177 23 1600 2468 732 1600 2803 397 1600 2306 894

Capacity Analysis Module:
 Vol/Sat: 0.04 0.40 0.40 0.03 0.17 0.17 0.12 0.20 0.20 0.02 0.21 0.21
 Crit Moves: ****

Traffic 8.0.0715 (c) 2008 Dowling Assoc. Licensed to K-H, PHOENIX, AZ

ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)
 Intersection #3 Sepulveda Blvd at Washington Blvd
 Level of Service Computation Report

Cycle (sec): 100 Critical Vol./Cap. (X): 0.817
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 71 Level of Service: D
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Include Permitted Include
 Rights: Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 0

Volume Module:
 Base Vol: 121 833 105 101 367 65 183 748 97 73 467 77
 Growth Adj: 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01
 Initial Bse: 122 841 106 102 371 66 185 755 98 74 472 78
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Cumulative: 2 25 39 0 27 0 19 2 28 13 0
 Initial Fut: 124 866 145 102 398 66 185 774 100 102 485 78
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 124 866 145 102 398 66 185 774 100 102 485 78
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 124 866 145 102 398 66 185 774 100 102 485 78
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 124 866 145 102 398 66 185 774 100 102 485 78

Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.71 0.29 1.00 1.72 0.28 1.00 1.77 0.23 1.00 1.72 0.28
 Final Sat.: 1600 2741 459 1600 2747 453 1600 2834 366 1600 2758 442

Capacity Analysis Module:
 Vol/Sat: 0.08 0.32 0.32 0.06 0.14 0.14 0.12 0.27 0.27 0.06 0.18 0.18
 Crit Moves: ****

Traffic 8.0.0715 (c) 2008 Dowling Assoc. Licensed to K-H, PHOENIX, AZ

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Washington Pl at Sawtelle Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.612
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 41 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 1 0 1 0 0 1 0 1 0 1 0 1 0 2 0 1

Volume Module:

Base Vol:	30	568	37	45	189	127	179	555	80	34	471	185
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Etc:	30	574	37	45	191	128	181	561	81	34	476	187
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Cumulative:	0	0	0	7	0	0	0	55	0	0	54	0
Initial Put:	30	574	37	52	191	128	181	616	81	34	530	187
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	574	37	52	191	128	181	616	81	34	530	187
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	30	574	37	52	191	128	181	616	81	34	530	187

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.09	1.79	0.12	0.28	1.03	0.69	1.00	1.77	0.23	1.00	2.00	1.00
Final Sat:	151	2862	186	452	1844	1105	1600	2829	371	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.20	0.20	0.03	0.12	0.12	0.11	0.22	0.22	0.02	0.17	0.12
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****

Scenario Report

Scenario: 2014 PM

Command: 2014 PM
 Volume: 2014 PM
 Geometry: Existing
 Impact Fee: Default Impact Fee
 Trip Generation: None
 Trip Distribution: None
 Paths: Default Path
 Routes: Default Route
 Configuration: 2014

Turning Movement Report
 Project PM

Volume Type	Northbound		Southbound		Eastbound		Westbound		Total Volume				
	Left	Thru Right	Left	Thru Right	Left	Thru Right	Left	Thru Right					
#1 Sepulveda Blvd at I-405 NB Ramps													
Base	222	1152	7	1	1259	159	758	0	94	2	1	4	3659
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumula	10	69	0	0	60	0	0	0	0	0	0	0	139
Total	232	1221	7	1	1319	159	758	0	94	2	1	4	3798
#2 Washington Pl at Sepulveda Blvd													
Base	63	1078	38	83	941	226	182	599	124	42	549	140	4066
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumula	20	23	0	10	31	20	20	43	16	0	49	36	268
Total	83	1101	38	93	972	246	202	642	140	42	598	176	4334
#3 Sepulveda Blvd at Washington Blvd													
Base	101	1045	136	135	1133	95	141	721	119	136	575	76	4415
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumula	4	43	40	0	36	0	0	18	3	52	24	0	220
Total	105	1088	176	135	1169	95	141	739	122	188	599	76	4635
#4 Washington Pl at Sawtelle Blvd													
Base	47	539	37	65	663	234	116	590	109	21	633	142	3198
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumula	0	0	0	7	0	0	0	60	0	0	89	0	156
Total	47	539	37	72	663	234	116	650	109	21	722	142	3354
#9 Sepulveda Blvd at South Driveway													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
#10 Sepulveda Blvd at North Driveway													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
#11 Washington Pl at West Driveway													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
#51 Washington Pl at East Driveway													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
#54 Washington Pl at Washington Blvd													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Impact Analysis Report Level Of Service

Intersection	Base Del/ LOS Veh C	Future Del/ LOS Veh C	Change in
# 1 Sepulveda Blvd at I-405 NB Ram	E xxxxx 0.903	E xxxxx 0.928	+ 0.025 V/C
# 2 Washington Pl at Sepulveda Blv	D xxxxx 0.830	E xxxxx 0.901	+ 0.071 V/C
# 3 Sepulveda Blvd at Washington B	E xxxxx 0.902	E xxxxx 0.967	+ 0.065 V/C
# 4 Washington Pl at Sawtelle Blvd	C xxxxx 0.701	C xxxxx 0.731	+ 0.030 V/C

Level Of Service Computation Report

ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Sepulveda Blvd at I-405 NB Ramps

Cycle (sec): 100
Critical Vol./Cap.(X): 0.928
Loss Time (sec): 10
Average Delay (sec/veh): xxxxxx
Optimal Cycle: 116
Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Permitted Permitted Permitted Permitted Permitted
Rights: Include Include Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 0 1 1 0 1 1 0 1 0 0 1 1 0 0

Volume Module:

Base Vol: 220 1141 7 1 1247 157 750 0 93 2 1 4
Growth Adj: 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01
Initial Bse: 222 1152 7 1 1259 159 758 0 94 2 1 4
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Cumulative: 10 69 0 0 60 0 0 0 0 0 0 0
Initial Fut: 232 1221 7 1 1319 159 758 0 94 2 1 4
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: 232 1221 7 1 1319 159 758 0 94 2 1 4
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 232 1221 7 1 1319 159 758 0 94 2 1 4
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 Volume: 232 1221 7 1 1319 159 758 0 94 2 1 4

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.99 0.01 0.01 1.99 1.00 1.77 0.01 0.22 0.29 0.14 0.57
Final Sat.: 1600 3182 18 2 3198 1600 2847 0 353 457 229 914

Capacity Analysis Module:

Vol/Sat: 0.15 0.38 0.38 0.00 0.41 0.10 0.27 0.00 0.27 0.00 0.00 0.00
Crit Moves: ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Washington Pl at Sepulveda Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.901

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 100 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 0

Volume Module:

Base Vol: 62 1067 38 82 932 224 180 593 123 42 544 139

Growth Adj: 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01

Initial Bse: 63 1078 38 83 941 226 182 599 124 42 549 140

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Cumulative: 20 23 0 10 31 20 20 43 16 0 49 36

Initial Fut: 83 1101 38 93 972 246 202 642 140 42 598 176

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: 83 1101 38 93 972 246 202 642 140 42 598 176

Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 83 1101 38 93 972 246 202 642 140 42 598 176

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 Volume: 83 1101 38 93 972 246 202 642 140 42 598 176

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.93 0.07 1.00 1.60 0.40 1.00 1.64 0.36 1.00 1.54 0.46

Final Sat.: 1600 3092 108 1600 2553 647 1600 2626 574 1600 2472 728

Capacity Analysis Module:

Vol/Sat: 0.05 0.36 0.36 0.06 0.38 0.38 0.13 0.24 0.24 0.03 0.24 0.24

Crit Moves: **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Sepulveda Blvd at Washington Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.967

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 150 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 0

Volume Module:

Base Vol: 100 1035 135 134 1122 94 140 714 118 135 569 75

Growth Adj: 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01

Initial Bse: 101 1045 136 135 1133 95 141 721 119 136 575 76

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Cumulative: 4 43 40 0 36 0 0 18 3 52 24 0

Initial Fut: 105 1088 176 135 1169 95 141 739 122 188 599 76

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 105 1088 176 135 1169 95 141 739 122 188 599 76

Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 105 1088 176 135 1169 95 141 739 122 188 599 76

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Volume: 105 1088 176 135 1169 95 141 739 122 188 599 76

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.72 0.28 1.00 1.85 0.15 1.00 1.72 0.28 1.00 1.78 0.22

Final Sat.: 1600 2754 446 1600 2960 240 1600 2746 454 1600 2841 359

Capacity Analysis Module:

Vol/Sat: 0.07 0.40 0.40 0.08 0.40 0.40 0.09 0.27 0.27 0.12 0.21 0.21

Crit Moves: **** ****

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Level Of Service Computation Report

Intersection #4 Washington Pl at Sawtelle Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.731

Loss time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 54 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted Permitted Permitted

Rights: Include Include Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 1 0 1 0 0 1 0 1 0 1 0 1 0 2 0 1

Volume Module:

Base Vol: 47 534 37 64 656 232 115 584 108 21 627 141

Growth Adj: 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01

Initial Use: 47 539 37 65 663 234 116 590 109 21 633 142

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Cumulative: 0 0 0 7 0 0 0 60 0 0 89 0

Initial Sat: 47 539 37 72 663 234 116 650 109 21 722 142

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: 47 539 37 72 663 234 116 650 109 21 722 142

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 47 539 37 72 663 234 116 650 109 21 722 142

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 Volume: 47 539 37 72 663 234 116 650 109 21 722 142

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.15 1.73 0.12 0.15 1.37 0.48 1.00 1.71 0.29 1.00 2.00 1.00

Final Sat: 243 2765 192 237 2189 774 1600 2740 460 1600 3200 1600

Capacity Analysis Module:

Vol/Sat: 0.03 0.20 0.20 0.04 0.30 0.30 0.07 0.24 0.24 0.01 0.23 0.09

Crit Moves: ****

Lanes, Volumes, Timings
1: Washington Blvd & Harter Ave

7/11/2013

	↑	↶	↷	↓	↶	↷					
Lane Group	NBT	NBR	SBL	SBT	NWL	NWR	ø1	ø3	ø4	ø6	ø8
Lane Configurations	↑↑		↶	↑↑	↶	↷					
Volume (vph)	679	11	23	599	18	14					
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600					
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00					
Frt	0.998					0.850					
Flt Protected			0.950		0.950						
Satd. Flow (prot)	2974	0	1490	2980	1490	1333					
Flt Permitted			0.300		0.950						
Satd. Flow (perm)	2974	0	471	2980	1490	1333					
Right Turn on Red		Yes				Yes					
Satd. Flow (RTOR)	2					14					
Link Speed (mph)	30			30	30						
Link Distance (ft)	621			189	505						
Travel Time (s)	14.1			4.3	11.5						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	690	0	23	599	18	14					
Turn Type	NA		Perm	NA	NA	Prot					
Protected Phases	2			6 3	7	7	1	3	4	6	8
Permitted Phases			6 3								
Total Split (s)	22.0				20.0	20.0	8.0	20.0	40.0	30.0	20.0
Total Lost Time (s)	4.0				4.0	4.0					
Act Effct Green (s)	25.4		49.3	49.3	6.4	6.4					
Actuated g/C Ratio	0.42		0.81	0.81	0.10	0.10					
v/c Ratio	0.56		0.06	0.25	0.11	0.09					
Control Delay	20.3		0.3	0.3	30.7	17.1					
Queue Delay	0.0		0.0	0.3	0.0	0.0					
Total Delay	20.4		0.3	0.5	30.7	17.1					
LOS	C		A	A	C	B					
Approach Delay	20.4			0.5	24.7						
Approach LOS	C			A	C						

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 61

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 11.3

Intersection LOS: B

Intersection Capacity Utilization 32.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Washington Blvd & Harter Ave

#3 ↶ ø1	#1 #2 #3 ↑ ↑ ↑ ø2	#1 #2 #3 ↓ ↶ ↑ ø3	#2 ↶ ø4
8 s	22 s	20 s	40 s
#1 #2 #3 ↓ ↓ ↓ ø6			#1 #2 ↶ ↶ ø7
30 s			20 s
			#3 ↶ ø8
			20 s

OPENING YEAR 2014 AM

Lanes, Volumes, Timings
2: Washington PI & Tilden Ave

7/11/2013



Lane Group	EBL2	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER	SER2	ø1	ø4
Lane Configurations												
Volume (vph)	44	615	23	0	693	616	663	0	0	65		
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600		
Lane Util. Factor	1.00	0.97	1.00	1.00	0.95	0.91	0.91	1.00	1.00	1.00		
Frt			0.850			0.955	0.850			0.865		
Flt Protected	0.950	0.950										
Satd. Flow (prot)	1490	2891	1333	0	2980	2726	1213	0	0	1357		
Flt Permitted	0.950	0.950										
Satd. Flow (perm)	1490	2891	1333	0	2980	2726	1213	0	0	1357		
Right Turn on Red			Yes							Yes		
Satd. Flow (RTOR)			61							667		
Link Speed (mph)		30			30	30		30				
Link Distance (ft)		802			189	157		433				
Travel Time (s)		18.2			4.3	3.6		9.8				
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Shared Lane Traffic (%)							40%					
Lane Group Flow (vph)	44	615	23	0	693	881	398	0	0	65		
Turn Type	Perm	NA	custom		NA	NA	Perm			custom		
Protected Phases		3	3		2	6				7	1	4
Permitted Phases	3		4				6					
Total Split (s)	20.0	20.0	20.0		22.0	30.0	30.0			20.0	8.0	40.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0	4.0			4.0		
Act Effct Green (s)	16.5	16.5	26.0		25.4	26.7	26.7			6.4		
Actuated g/C Ratio	0.27	0.27	0.43		0.42	0.44	0.44			0.10		
v/c Ratio	0.11	0.79	0.04		0.56	0.74	0.75			0.09		
Control Delay	22.0	33.3	0.4		9.8	9.7	16.4			0.2		
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0			0.0		
Total Delay	22.0	33.3	0.4		9.8	9.7	16.4			0.2		
LOS	C	C	A		A	A	B			A		
Approach Delay		31.4			9.8	11.8						
Approach LOS		C			A	B						

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 61
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 15.9
 Intersection Capacity Utilization 56.1%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 2: Washington PI & Tilden Ave

#3 	#1 #2 #3 	#1 #2 #3 	#2
ø1	ø2	ø3	ø4
8 s	22 s	20 s	40 s
#1 #2 #3 		#1 #2 	#3
ø6		ø7	ø8
30 s		20 s	20 s

Lane Group	ø8
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	8
Permitted Phases	
Total Split (s)	20.0
Total Lost Time (s)	
Act Effect Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings
3: Tilden Ave & Washington Blvd

7/11/2013

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR	ø2	ø3	ø4	ø7
Lane Configurations	↑↑	↑	↓	↑↑↑	↓					
Volume (vph)	1302	6	5	1271	8	8				
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600				
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	1.00				
Frt		0.850			0.932					
Flt Protected			0.950		0.976					
Satd. Flow (prot)	2980	1333	1490	4282	1427	0				
Flt Permitted			0.950		0.976					
Satd. Flow (perm)	2980	1333	1490	4282	1427	0				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)		5			8					
Link Speed (mph)	30			30	30					
Link Distance (ft)	157			302	333					
Travel Time (s)	3.6			6.9	7.6					
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	1302	6	5	1271	16	0				
Turn Type	NA	Over	Prot	NA	NA					
Protected Phases	2 3	8	1	6	8		2	3	4	7
Permitted Phases										
Total Split (s)		20.0	8.0	30.0	20.0		22.0	20.0	40.0	20.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					
Act Effct Green (s)	47.9	6.2	4.1	26.7	6.2					
Actuated g/C Ratio	0.79	0.10	0.07	0.44	0.10					
v/c Ratio	0.56	0.04	0.05	0.68	0.11					
Control Delay	3.9	27.5	33.0	18.4	23.9					
Queue Delay	0.1	0.0	0.0	0.0	0.0					
Total Delay	4.1	27.5	33.0	18.4	23.9					
LOS	A	C	C	B	C					
Approach Delay	4.2			18.5	23.9					
Approach LOS	A			B	C					

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 61

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 11.3

Intersection LOS: B

Intersection Capacity Utilization 52.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Tilden Ave & Washington Blvd

#3 ↓ ø1	#1 #2 #3 ↑ ↑ ↑ ø2	#1 #2 #3 ↓ ↓ ↓ ø3	#2 ← ø4
8 s	22 s	20 s	40 s
#1 #2 #3 ↓ ↓ ↓ ø6		#1 #2 ← → ø7	#3 ↘ ø8
30 s		20 s	20 s

OPENING YEAR 2014 AM

Synchro 8 Report
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Lanes, Volumes, Timings
1: Washington Blvd & Harter Ave

7/11/2013

	↑	↖	↗	↓	↙	↘					
Lane Group	NBT	NBR	SBL	SBT	NWL	NWR	ø1	ø3	ø4	ø6	ø8
Lane Configurations	↑↑		↖	↑↑	↖	↗					
Volume (vph)	767	26	14	816	10	15					
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600					
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00					
Frt	0.995					0.850					
Flt Protected			0.950		0.950						
Satd. Flow (prot)	2965	0	1490	2980	1490	1333					
Flt Permitted			0.256		0.950						
Satd. Flow (perm)	2965	0	402	2980	1490	1333					
Right Turn on Red		Yes				Yes					
Satd. Flow (RTOR)	3					15					
Link Speed (mph)	30			30	30						
Link Distance (ft)	621			189	505						
Travel Time (s)	14.1			4.3	11.5						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	793	0	14	816	10	15					
Turn Type	NA		Perm	NA	NA	Prot					
Protected Phases	2			6 3	7	7	1	3	4	6	8
Permitted Phases			6 3								
Total Split (s)	22.0				20.0	20.0	8.0	20.0	40.0	30.0	20.0
Total Lost Time (s)	4.0				4.0	4.0					
Act Effect Green (s)	25.4		49.2	49.2	6.2	6.2					
Actuated g/C Ratio	0.42		0.81	0.81	0.10	0.10					
v/c Ratio	0.64		0.04	0.34	0.07	0.10					
Control Delay	22.1		0.2	0.2	30.4	17.2					
Queue Delay	0.1		0.0	0.5	0.0	0.0					
Total Delay	22.2		0.2	0.7	30.4	17.2					
LOS	C		A	A	C	B					
Approach Delay	22.2			0.7	22.5						
Approach LOS	C			A	C						

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 60.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 11.3

Intersection LOS: B

Intersection Capacity Utilization 36.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Washington Blvd & Harter Ave

#3 ↓ ø1 8 s	#1 #2 #3 ↑ ↑ ↑ ø2 22 s	#1 #2 #3 ↓ ↘ ↑ ø3 20 s	#2 ↖ ø4 40 s
#1 #2 #3 ↓ ↓ ↓ ø6 30 s			#1 #2 ↖ ↗ ø7 20 s
			#3 ↖ ø8 20 s

OPENING YEAR 2014 PM

Synchro 8 Report
Page 1

Lanes, Volumes, Timings
2: Washington Pl & Tilden Ave

7/11/2013



Lane Group	EBL2	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER	SER2	ø1	ø4
Lane Configurations												
Volume (vph)	23	736	15	0	783	822	783	0	0	54		
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600		
Lane Util. Factor	1.00	0.97	1.00	1.00	0.95	0.91	0.91	1.00	1.00	1.00		
Frt			0.850			0.961	0.850			0.865		
Flt Protected	0.950	0.950										
Satd. Flow (prot)	1490	2891	1333	0	2980	2744	1213	0	0	1357		
Flt Permitted	0.950	0.950										
Satd. Flow (perm)	1490	2891	1333	0	2980	2744	1213	0	0	1357		
Right Turn on Red			Yes							Yes		
Satd. Flow (RTOR)			61							658		
Link Speed (mph)		30			30	30		30				
Link Distance (ft)		802			189	157		433				
Travel Time (s)		18.2			4.3	3.6		9.8				
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Shared Lane Traffic (%)							37%					
Lane Group Flow (vph)	23	736	15	0	783	1112	493	0	0	54		
Turn Type	Perm	NA	custom		NA	NA	Perm			custom		
Protected Phases		3	3		2	6				7	1	4
Permitted Phases	3		4				6					
Total Split (s)	20.0	20.0	20.0		22.0	30.0	30.0			20.0	8.0	40.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0	4.0			4.0		
Act Effct Green (s)	16.4	16.4	26.0		25.4	26.7	26.7			6.2		
Actuated g/C Ratio	0.27	0.27	0.43		0.42	0.44	0.44			0.10		
v/c Ratio	0.06	0.94	0.02		0.63	0.92	0.93			0.07		
Control Delay	21.8	48.5	0.1		10.9	18.2	27.8			0.2		
Queue Delay	0.0	0.0	0.0		0.1	0.0	0.0			0.0		
Total Delay	21.8	48.5	0.1		11.0	18.2	27.8			0.2		
LOS	C	D	A		B	B	C			A		
Approach Delay		46.7			11.0	21.1						
Approach LOS		D			B	C						

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 60.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 24.5

Intersection LOS: C

Intersection Capacity Utilization 68.5%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 2: Washington Pl & Tilden Ave

#3 ø1	#1 #2 #3 ø2	#1 #2 #3 ø3	#2 ø4
8 s	22 s	20 s	40 s
#1 #2 #3 ø6		#1 #2 ø7	#3 ø8
30 s		20 s	20 s

OPENING YEAR 2014 PM

Lane Group	ø8
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	8
Permitted Phases	
Total Split (s)	20.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings
3: Tilden Ave & Washington Blvd

7/11/2013



Lane Group	NBT	NBR	SBL	SBT	NWL	NWR	ø2	ø3	ø4	ø7
Lane Configurations	↑↑	↑	↓	↑↑↑	↓					
Volume (vph)	1504	7	8	1589	12	14				
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600				
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	1.00				
Frt		0.850			0.927					
Flt Protected			0.950		0.977					
Satd. Flow (prot)	2980	1333	1490	4282	1421	0				
Flt Permitted			0.950		0.977					
Satd. Flow (perm)	2980	1333	1490	4282	1421	0				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)		5			14					
Link Speed (mph)	30			30	30					
Link Distance (ft)	157			302	333					
Travel Time (s)	3.6			6.9	7.6					
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	1504	7	8	1589	26	0				
Turn Type	NA	Over	Prot	NA	NA					
Protected Phases	2 3	8	1	6	8		2	3	4	7
Permitted Phases										
Total Split (s)		20.0	8.0	30.0	20.0		22.0	20.0	40.0	20.0
Total Lost Time (s)		4.0	4.0	4.0	4.0					
Act Effect Green (s)	47.9	6.4	4.1	26.7	6.4					
Actuated g/C Ratio	0.79	0.11	0.07	0.44	0.11					
v/c Ratio	0.64	0.05	0.08	0.85	0.16					
Control Delay	6.4	26.9	33.6	24.4	22.5					
Queue Delay	0.2	0.0	0.0	0.2	0.0					
Total Delay	6.6	26.9	33.6	24.6	22.5					
LOS	A	C	C	C	C					
Approach Delay	6.7			24.7	22.5					
Approach LOS	A			C	C					

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 60.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 16.0

Intersection LOS: B

Intersection Capacity Utilization 59.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: Tilden Ave & Washington Blvd

#3 ↓ ø1	#1 #2 #3 ↑ ↑ ↑ ø2	#1 #2 #3 ↓ ↓ ↓ ø3	#2 ↑ ø4
8 s	22 s	20 s	40 s
#1 #2 #3 ↓ ↓ ↓ ø6			#1 #2 ↑ ↑ ø7
30 s			20 s
			#3 ↓ ø8
			20 s

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