

IVY STATION, CULVER CITY

Mixed-Use Transit Oriented Development (TOD) At Washington Blvd. and National Blvd.

Traffic Impact Analysis

Prepared by Kimley »Horn Expect More. Experience Better.





FINAL REPORT TRAFFIC IMPACT ANALYSIS

Ivy Station Washington and National Mixed Use Transit Oriented Development

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EXECUTIVE SUMMARY

This report documents a Traffic Impact and Parking Analysis conducted for the proposed Washington/National Mixed-Use project. The proposed project is located at the northwest corner of Washington Boulevard and National Boulevard in the cities of Culver City and Los Angeles, with a small portion of the project site located within the City of Los Angeles. The project is approximately 6.2 acres and is expected to be constructed and operational in 2019. The key findings and conclusions of the analysis are as follows:

- As per the proposed site plan, the project site includes 10,000 square feet of High Turnover Restaurant, 10,000 of Quality Restaurant, 200 Mid-Rise Apartment Units, a Hotel with 148 Rooms, 201 ksf of General Office space and 24 ksf of Retail Center. The proposed project site includes the conversion of existing 30,000 square feet of Mixed-Use land (10,000 square feet of Automobile Care Center, 8,000 square feet of Apparel Store and 12,000 square feet of Furniture Store) and Expo Light Rail Station 600 space surface parking lot.
- The project site will include three levels of subterranean parking, including up to 300 spaces that will be provided to the Metro (Expo) Light Rail Station transit use.
- As per the project site plan, there are 4 driveways proposed for the project one along Venice Boulevard, two along National Boulevard, and one along Washington Boulevard. In addition, two truck delivery driveways are also proposed on Venice Boulevard. A review of the proposed driveways indicates that the driveway configurations are adequate for the project traffic circulation.
- This traffic impact analysis includes an analysis of 15 intersections within the cities of Culver City and City of Los Angeles. These intersections were selected for analysis based on the discussions with LADOT and Culver City staff. Roadway improvements are currently being constructed in the project vicinity as part of the Expo Line Phase II project and these improvements were considered and included in this analysis.
- Trip credits were applied based on the existing land use for:
 - 30,000 square feet for existing Mixed-Use land
 - 300 parking spaces for Light Rail Transit Station
 - 10% Internal Capture (based upon ITE 10% for Daily Trips, 10% for AM and 10% for PM peak)
 - 25% of Transit Credits (based on the high land use density on the project site and 10-12 minute headways on Exposition Line)
- As per the site plan, the project is estimated to generate approximately 4,124 new daily trips, 256 new trips during the AM peak hour and 301 new trips during the PM peak hour.
- Weekday peak hour intersection operations analysis was conducted for (4) scenarios including Existing (2014), Existing With Project (2014), Cumulative (2019), and Cumulative With Project (2019).
- For the Existing (2014) base conditions, one intersection operates at LOS F, 2 intersections operate at LOS D while the remaining 12 intersections operate at LOS C or better during the AM peak period. During the PM peak period, 2 intersections operate at LOS D while the remaining 13 intersections operate at LOS C or better.





- For the Existing (2014) With Project conditions, one intersection is projected to operate at LOS F, 2 intersections would operate at LOS D while the remaining 12 intersections would operate at LOS C or better during the AM peak period. During the PM peak period, 3 intersections are projected to operate at LOS D while the remaining 12 intersections would operate at LOS C or better.
- For the Cumulative (2019) base conditions, 2 intersections are projected to operate at LOS E, 2 intersections are projected to operate at LOS D while the remaining 11 intersections are projected to operate at LOS C or better during the AM peak period. During the PM peak period, 4 intersections are projected to operate LOS D while the remaining 11 intersections would operate at LOS C or better.
- For the Cumulative (2019) With Project conditions, 2 intersections are projected to operate at LOS E, 3 intersections are projected to operate at LOS D while the remaining 11 intersections (including the main project driveway) would operate at LOS C or better in the AM peak period. In the PM peak period, one intersection is projected to operate at LOS E, 3 intersections are projected to operate at LOS D while the remaining 12 intersections (including the main project driveway) would operate at LOS C or better. This scenario reflects that there is an increase in volume to capacity (V/C) ratio at the intersection of Robertson Boulevard and National Boulevard as well as National Boulevard and Venice Boulevard resulting in a significant impact.
- Based on City of Los Angeles significant impact criteria, the project would cause a significant impact at the intersections of National/Robertson. A Transportation Demand Management (TDM) plan with a cumulative target goal of 20% reduction in project traffic will increase capacity but does not fully mitigate the project's impact. The recommended mitigation includes re-striping the eastbound approach to provide two left-turn, one through and one through-right lanes. The available roadway width would allow for an additional left-turn lane in the eastbound direction by re-striping without additional physical improvements to the intersection. Geometric constraints may exist for the eastbound left-turn movement and will be investigated during the design phase.
- Based on City of Los Angeles significant impact criteria, the project would cause a significant impact at the intersection of National/Venice. The recommended mitigation includes re-striping the northbound approach to provide two left-turn, two through and one right-turn lanes. The available roadway width along with the widening along the project frontage would allow for an additional right-turn lane in the northbound direction by re-striping without additional physical improvements to the intersection. This may require minor striping re-alignment for the north leg of National Boulevard. Upon mitigation, this intersection is projected to operate at an acceptable LOS B in the PM peak period.
- As a result of the recommended mitigation for National/Robertson and National/Venice, a total of 35 on-street parking spaces will be removed and 8 on-street spaces will be added.
- The proposed development would construct a Class II bicycle lane on National Boulevard between Washington Boulevard and Venice Boulevard in both directions and will serve as a key connection for bicyclists traveling between Washington Boulevard and Venice Boulevard. The proposed development would also be responsible for restriping Washington Boulevard and National Boulevard, including bicycle lanes on both sides of Washington Boulevard and National Boulevard.



- Based on the project trip generation and distribution patterns in the With Project conditions, the LOS at the study intersections and the LOS at Higuera Street/Robertson Boulevard and Washington Boulevard intersection, the project is not expected to result in impacts to the residential streets.
- A CMP intersection impact screening analysis was conducted as per LADOT Traffic Study Guidelines. The project is expected to contribute less than 50 peak hour trips to the CMP monitored intersection of Venice Blvd and La Cienega Blvd and therefore no additional analysis of the CMP monitored intersection is required.
- A freeway impact screening analysis was conducted as per LADOT Traffic Study Guidelines. The project is expected to add less than 1% traffic to I-10 mainline and therefore no additional mainline analysis was required. For the intersection of I-10 westbound freeway off-ramp at Robertson Boulevard, the project would result in less than 2% increase in traffic during AM peak hour and PM peak hour and therefore no additional ramp analysis was required.
- The report also documents the findings of parking, access and circulation for the project site and proposed driveways. The analysis indicates that the proposed parking spaces and driveways are adequate.
- A driveway queueing analysis was conducted due to close spacing between two (2) proposed site driveways on National Boulevard and nearby interactions of National Boulevard/Venice Boulevard and National Boulevard/Washington Boulevard. The queueing at the signalized driveway is not expected to cause blockage at nearby intersections under Future With Project conditions peak hour traffic. The analysis also indicates that the addition of a signalized driveway between the two existing signalized intersections on National Boulevard will not adversely impact the traffic operations on the corridor if appropriate turn pockets lengths and signal timing treatment are provided.
- The location of bus stops adjacent to the proposed driveways was reviewed to mitigate any conflicts with the proposed site driveways. Only one of the 3 bus stops would have to be relocated to accommodate the proposed driveway located at Venice Boulevard south of Ellis Avenue.



I. INTRODUCTION

Project Description

This Report documents the results of the Traffic Impact Analysis of the proposed Mixed-Use Development for Lowe Enterprises Real Estate Group. The proposed project is located at the northwest corner of Washington Boulevard and National Boulevard in the cities of Culver City and Los Angeles. The project includes 6.2 acres and is bounded by Venice Boulevard to the northwest, National Boulevard to the northeast, Exposition Boulevard to the south, and Robertson Boulevard to the west. **Figure 1** illustrates the study area and project location. The project is expected to be constructed by the year 2019.

The proposed project site includes a mix of land uses including a 10,000 SF of High Turnover Restaurant, 10,000 SF of Quality Restaurant, 200 Mid-Rise Apartment Units, a Hotel with 148 Rooms, 201 KSF of General Office space and 24 KSF of Retail Center. The proposed project site includes the conversion of existing 30,000 square feet of Mixed-Use land (10,000 square feet of Automobile Care Center, 8,000 square feet of Apparel Store and 12,000 square feet of Furniture Store) and Expo Light Rail Station 600 space surface parking lot.

The proposed project would require a minimum of 1,567 parking spaces based on the parking requirements. The project would provide a total of 1,634 or more parking spaces which exceeds the parking requirements based on the Straight ULI (Urban Land Institute) Shared Parking Manual 2nd Edition.

The access to the project site will be provided by one right-in/right-out access driveway along Venice Boulevard, a full access signalized driveway along National Boulevard, a secondary right-in/right-out access driveway along National Boulevard, and one right-in/right-out access driveway along Washington Boulevard. In addition, two service/delivery driveways are provided along Venice Boulevard. The driveway located along Washington Boulevard will provide access to the valet drop-off/pick-up for the hotel. The project site plan and driveway locations are provided in **Figure 2**.

Study Methodology

A traffic impact analysis was conducted to analyze the traffic conditions in the project area under the following four scenarios:

- 1. Existing (2014) Conditions
- 2. Existing With Project (2014) Conditions
- 3. Cumulative (2019) Conditions
- 4. Cumulative With Project (2019) Conditions

The project study area, future analysis and study intersections were defined in consultation with City of Culver City and LADOT staff. A Memorandum of Understanding (MOU) which outlined all the study assumptions, growth rate, project trip generation and distribution, was submitted and approved by both cities and is attached in **Appendix A**.

Existing (2014) conditions were analyzed using traffic count data collected during the month of November 2014 and May 2015. A growth rate of 1%, approved in the MOU, was applied to Cumulative (2019) scenarios.



ADAMS BLVD SENTNEY AVE REID AVE Z \leq -Kimley »Horn





II. EXISTING CONDITIONS

Study Area

The project site is located on the northwest corner of Washington Boulevard and National Boulevard in the cities of Culver City and Los Angeles. The San Diego Freeway (I-405) is located approximately two miles west of the project site and the Santa Monica Freeway (I-10) is located less than half a mile north of the project site. The study area is bounded by Fairfax Avenue to the east, Culver Boulevard to the west, I-10 Westbound Off-Ramp to the north and Jefferson Boulevard to the south.

The 15 study intersections identified in conjunction with City staff for the purpose of this Traffic Impact Analysis are listed in **Table 1** below.

Intersection	Northbound/	Eastbound/	Jurisdiction	Signalized	Signal System
#	Southbound	Westbound			
1	Culver Boulevard	Venice Boulevard	City of	Yes	ATSAC/ATCS
			Los Angeles		
2	Robertson Boulevard	Venice Boulevard	City of	Yes	ATSAC/ATCS
			Los Angeles		
3	National Boulevard	Venice Boulevard	City of	Yes	ATSAC/ATCS
			Los Angeles		
4	Helms Avenue	Venice Boulevard	City of	Yes	ATSAC/ATCS
			Los Angeles		
5	Cattaraugus Avenue	Venice Boulevard	City of	Yes	ATSAC/ATCS
			Los Angeles		
6	Robertson Boulevard/	Washington Boulevard	Culver City	Yes	ATSAC
	Higuera Street	_	Curver City		
7	National Boulevard	Washington Boulevard	Culver City	Yes	ATSAC
8	Helms Avenue	Washington Boulevard	Culver City	Yes	ATSAC
9	Robertson Boulevard	National Boulevard	City of	Yes	ATSAC/ATCS
			Los Angeles		
10	National Boulevard	I-10 Eastbound	Caltrans	Yes	ATSAC/ATCS
		On-Ramp	Calualis		
11	Wesley Street	National Boulevard	Culver City	Yes	ATSAC
12	La Cienega Boulevard	Venice Boulevard	City of	Yes	ATSAC/ATCS
			Los Angeles		
13	Fairfax Boulevard	Washington Boulevard	City of	Yes	ATSAC/ATCS
		_	Los Angeles		
14	Jefferson Boulevard	National Boulevard	City of	Yes	ATSAC/ATCS
			Los Angeles		
15	Robertson Boulevard	I-10 Westbound	Caltrong	Yes	ATSAC/ATCS
		Off-ramp	Caltrans		

Table 1 – Study Area Intersections

An intersection level of service (LOS) analysis was performed at the study intersections to assess significant impacts resulting from the proposed project.

Figure 3 on the following page illustrates the existing lane configuration and traffic control for each study intersection.



LEGEND

Study Area Intersection Proposed Driveway Existing Bus Stop Proposed Lane Configuration From Expo Phase II Existing Lane Configuration





Existing Street System

The project site is located on the northwest corner of Washington Boulevard and National Boulevard in the City of Culver City and City of Los Angeles. The San Diego (I-405) Freeway is located approximately two miles west of the Project site and the Santa Monica (I-10) Freeway is located less than a half mile north of the Project site. The key roadways in the vicinity of the site are described below:

<u>Santa Monica (I-10) Freeway</u> – The I-10 provides access to the regional interstate system and runs in the east-west direction from Pacific Coast Highway in the west to San Bernardino County in the east. Within the study area, the Santa Monica Freeway provides four lanes in each direction. It connects at the interchanges of Robertson Boulevard, National Boulevard, La Cienega Boulevard/Venice Boulevard and Washington Boulevard/Fairfax Avenue within the vicinity of the study area.

<u>San Diego (I-405) Freeway</u> – The I-405 also provides access to the regional interstate system and runs in the north-south direction from the I-5 Freeway in the City of Irvine at the south to the northern terminus at the I-5 Freeway in Sylmar. The freeway provides five lanes in the northbound direction and six lanes in the southbound direction, including an HOV lane in both directions north of the SR-90. The freeway has interchanges at Culver Boulevard and Venice Boulevard/Washington Boulevard in the vicinity of the study area.

<u>Venice Boulevard</u> – Venice Boulevard is a primary arterial/major highway. Venice Boulevard runs in the east-west direction across several jurisdictions and has three lanes in each direction. Venice Boulevard provides left turn lanes at key intersections and a large raised median island. Venice Boulevard has parking on both sides of the street within the limits of the project area and provides access to the I-10 (Santa Monica) Freeway.

<u>Washington Boulevard</u> – Washington Boulevard is a primary arterial roadway within the City of Culver City and a major highway within the City of Los Angeles. Washington Boulevard runs in the east-west direction across several jurisdictions. Washington Boulevard provides parking on both sides of the street and has two travel lanes in each direction within the project limit area.

<u>Culver Boulevard</u> – Culver Boulevard is classified as a primary arterial in the City of Culver City and a major highway in the City of Los Angeles. Culver Boulevard runs in the east-west direction from Playa del Rey to Venice Boulevard. It provides two travel lanes in each direction and on-street parking is allowed on both sides of the street within the project area. Culver Boulevard provides access to the I-405 (San Diego Freeway) at the north.

<u>Jefferson Boulevard</u> – Jefferson Boulevard is a primary/major highway located west of La Cienega Boulevard and runs in the east-west direction. Jefferson Boulevard is classified as a secondary highway east of La Cienega Boulevard. It has two-travel lanes in each direction, and provides on-street parking on both sides of the street within the study area.

<u>Robertson Boulevard/Higuera Street</u> – Robertson Boulevard runs in a north-south direction and it is classified as a secondary highway by the City of Los Angeles. South of Venice Boulevard, Robertson Boulevard/Higuera Street is classified as a primary arterial by City of Culver City and has two travel lanes in each direction. There is on-street parking allowed on both sides of the street within the project area with some parking restrictions and prohibitions along some segments. Robertson Boulevard provides access to the I-10 (Santa Monica) Freeway.





<u>National Boulevard</u> – National Boulevard runs in the east-west direction and is considered a secondary arterial/highway. National Boulevard has two lanes in each direction and provides a connection to the I-10 (Santa Monica) Freeway north of the project site. On-street parking is allowed at some limited segments along this arterial.

<u>Hughes Avenue</u> – Hughes Avenue is classified as a collector street and travels in the north-south direction. This roadway provides one travel lane in each direction and on-street parking is generally allowed throughout the study area. Parking is prohibited between Venice Boulevard and Washington Boulevard.

<u>Wesley Street</u> – Wesley Street is a local roadway that runs in the north-south direction. A segment of Wesley Street extends from Washington Boulevard and ends at a cul-de-sac. The other portion of Wesley Street runs from National Boulevard to Higuera Street. This street provides one travel lane in each direction and on-street parking is allowed on both sides of the street.

<u>Cattaraugus Avenue</u> – Cattaraugus Avenue is classified as a local roadway within the City of Culver City and as a collector street within the City of Los Angeles. Cattaraugus Avenue runs in the north-south direction and has one lane in each direction within the project area. On-street parking is allowed on both sides of the street.



Existing Traffic Volumes

The sections below include the peak hour traffic volumes, methodology utilized for this analysis, and existing operating conditions at each study intersection.

Weekday traffic counts were conducted during the morning peak hours (7:00 to 9:00 AM) and evening peak hours (4:00 to 6:00 PM) at 11 intersections on November 19 and November 20, 2014. Weekday morning and afternoon traffic counts were also conducted at 4 additional intersections on May 13, 2015. Due to the on-going construction related to Metro Expositions Light Rail Project, the lane geometry utilized for the purpose of this analysis represents the future lane configuration at some study intersections as noted in the following section of this report. Based upon our recent field check on July 2, 2015, these improvements have already been completed.

Level of Service Methodology

LADOT and Culver City traffic analysis guidelines require the use of the Transportation Research Board's Critical Movement Analysis (CMA), Circular 212 Planning Method, to analyze traffic operating conditions at the study intersections. CMA is a method which determines the volume to capacity (V/C) ratio on a critical lane basis and Level of Service (LOS) associated with each V/C ratio at a signalized intersection. V/C ratios are measured on a scale of 0 to 1.000. LOS describes the quality of traffic flow and is a measure of such factors as travel speed, travel time, and flow interruptions. LOS ranges from "A" to "F". **Table 2** presents the volume to capacity ratio using the Circular 212 method. CMA calculation (CMAC) spreadsheets were utilized in this analysis to determine the LOS at the study intersections.

V/C Value Signalized ¹	Related LOS Rating
0 to 0.600	A – Excellent free flow conditions
0.601 to 0.700	B – Unconstrained flow
0.701 to 0.800	C – Somewhat constrained flow, maneuverability is reduced
0.801 to 0.900	D – Constrained flow, little maneuverability
0.901 to 1.000	E – Significant vehicle queuing; not all vehicles clear intersection in one cycle
Greater than 1.000	F – Excessive delay; vehicles require more than one signal cycle to clear the intersection

Table 2 – Intersection Level of Service (LOS) Definitions

¹Based upon Circular 212 methodology for signalized intersections

The City of Los Angeles and the City of Culver City defines a significant traffic impact at a signalized intersection as an increase in demand according to the indices found on the following page.



City of Culver City Significant Impact Criteria

The threshold criteria for City of Culver City determines that a project impact is considered significant if the following conditions are met:

Intersection Cond	ition With Project Traffic	Project-related Increase in V/C Ratio
LOS	V/C Ratio	
С	0.701-0.800	equal to or greater than 0.050
D	0.801-0.900	equal to or greater than 0.040
E,F	> 0.900	equal to or greater than 0.020

Using this criteria, a project would not have a significant impact at an intersection if it operates at LOS D after the addition of the proposed project traffic and the incremental change in V/C is less than 0.040. However, if the intersection is operating at LOS F after the addition of the proposed project traffic and the V/C ratio is 0.020 or greater, the project would be considered to have a significant impact.

City of Los Angeles Significant Impact Criteria

The threshold criteria for City of Los Angeles, considers a project to have a significant impact if the following conditions are met:

Intersection Condi	tion With Project Traffic	Project-related Increase in V/C Ratio
LOS	V/C Ratio	
С	0.701-0.800	equal to or greater than 0.040
D	0.801-0.900	equal to or greater than 0.020
E,F	> 0.900	equal to or greater than 0.010

Existing (2014) Conditions LOS Analysis

Existing traffic conditions were analyzed using new peak hour count data collected on November 19 and 20, 2014 and, May 13, 2015. The existing weekday peak hour (7:00 to 9:00 AM and 4:00 to 6:00 PM) traffic counts were used to calculate the Existing (2014) conditions LOS. Traffic count worksheets are provided in **Appendix B** of this report. **Figure 4** illustrates the AM and PM peak hour traffic volumes for the Existing (2014) conditions at each of the study intersections.







Table 3 presents the Existing (2014) conditions peak hour V/C ratio and the corresponding LOS for each intersection.

		I	LOS Anal	ysis Results	
	Signalized Intersection	A.M. Peal	k Hour	P.M. Peal	k Hour
		V/C Ratio	LOS	V/C Ratio	LOS
1	Culver Boulevard at Venice Boulevard	0.548	А	0.491	А
2	Robertson Boulevard at Venice Boulevard	1.041	F	0.839	D
3	National Boulevard at Venice Boulevard	0.604	В	0.647	В
4	Helms Avenue at Venice Boulevard	0.265	А	0.271	А
5	Cattaraugus Avenue at Venice Boulevard	0.713	С	0.607	В
6	Robertson Boulevard/Higuera Street at Washington Boulevard	0.690	В	0.660	В
7	National Boulevard at Washington Boulevard	0.680	В	0.788	С
8	Helms Avenue at Washington Boulevard	0.435	А	0.469	А
9	Robertson Boulevard at National Boulevard	0.847	D	0.753	С
10	National Boulevard at I-10 Eastbound On-Ramp	0.219	А	0.353	А
11	Wesley Street at National Boulevard	0.343	А	0.317	А
12	La Cienega Boulevard at Venice Boulevard	0.787	С	0.797	С
13	Fairfax Boulevard at Washington Boulevard	0.692	В	0.658	В
14	Jefferson Boulevard and National Boulevard	0.846	D	0.655	В
15	Robertson Boulevard and I-10 WB Offramp	0.593	А	0.810	D

Table 3 –	Existing	(2014)	Conditions	Intersection I	LOS
I unic c	LABOING		contaitions	Inter section 1	

Source: Kimley-Horn, July 2015

Table 3 indicates that during the AM peak period, one intersection operates at LOS F, 2 intersections operate at LOS D while the remaining 12 intersections operate at LOS C or better. During the PM peak period, 2 intersections operate at LOS D and the remaining 13 intersections operate at LOS C or better.

The following section provides an overview of transit lines that serve the study area.





Existing Transit Lines

In the existing transit system, eighteen bus lines operate under three different transportation agencies that currently serve the study area. Four bus lines are operated by the Culver City Bus (CC), ten bus lines are operated by the Los Angeles County Metropolitan Transportation Authority (MTA), three bus lines are operated by the Santa Monica Big Blue Bus (SM) and one bus is operated by the Los Angeles Department of Transportation (LADOT CE). A map of existing transit lanes is shown in **Figure 5.** These transit lines are described below.

 $\underline{CC \text{ Line 1}}$ – Line 1 travels along Washington Boulevard within the study area in the east-west direction. This line runs every day, including holidays. The frequency of service during peak commute hours is approximately 12 minutes. The western terminus is at the intersection of Windward Avenue and Main Street in Venice. The eastern terminus is at the West Los Angeles Transit Center located at the intersection of Apple Street/Fairfax Avenue in West Los Angeles.

<u>CC Line 4</u> – Line 4 is a local line that runs in the north-south direction providing service from the Fox Hills Mall in Culver City to West Los Angeles travelling primarily along Washington Boulevard within the study area. Line 4 runs Monday through Friday approximately every 60 minutes during peak commute hours. No weekend or holiday service is provided. Line 4 terminates at the Fox Hills Mall Transit Center at the south and at West Los Angeles Transit Center located at the north at the intersection of Apple Street/Fairfax Avenue in West Los Angeles.

 $\underline{\text{CC Line 5}}$ – Line 5 travels primarily along Washington Boulevard and Higuera Street within the project study area. This line travels in the east-west direction and operates Monday through Friday approximately every 60 minutes during commute hours. No weekend or holiday service is provided. This line ends at the intersection of Washington Boulevard/Inglewood Boulevard at the west and at La Cienega Boulevard/Rodeo Road at the east.

 $\underline{CC \text{ Line 7}}$ – Line 7 is a local east-west line that provides service from Marina Del Rey to Culver City and travels primarily along Culver Boulevard within the study area. This line runs Monday through Saturday approximately every 40 minutes. No service is provided on Sundays and holidays. CC Line 7 ends at the at Fisherman's Village located at the west in Marina Del Rey and at the intersection of Culver Boulevard/Venice Boulevard in Culver City at the east. Hayden Tract Extension was recently added to this transit line.

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

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







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

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

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

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

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

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

<u>MTA 733</u> – Line 733 "Rapid Bus" line runs in the east-west direction and provides service from Santa Monica to Downtown Los Angeles and travels primarily along Venice Boulevard within the study area. This line runs Monday through Friday at a frequency of approximately 10 minutes during peak commute hours. MTA Line 733 also provides service on weekends and holidays. The line route ends at the intersection of Ocean Avenue/Arizona Avenue in Santa Monica and at the Patsaouras Transit Plaza (Union Station) in Downtown Los Angeles to the east.



<u>MTA 780</u> – MTA Line 780 "Rapid Bus" travels in the east-west direction and provides service from Pasadena to West Los Angeles and travels primarily along Washington Boulevard within the study area. This line runs Monday through Friday approximately every 8-10 minutes during peak commute hours. No service is provided on weekends and holidays. MTA Line 780 route ends at the West Los Angeles Transit Center located at the intersection of Apple Street/Fairfax Avenue in West Los Angeles and at the east at the intersection of Hill Avenue/Colorado Boulevard in Pasadena.

 $\underline{CE 437}$ – Line 437 is a commuter express service that runs in the east-west direction and provides service from Downtown Los Angeles to Venice and travels primarily along Culver Boulevard within the study area. Line 437 runs Monday through Friday approximately every 25 minutes during peak commute hours. Line 437 route ends at Pacific Avenue/Washington Boulevard in Venice to the west and at the intersection of San Pedro Street/Temple Street Drive in Los Angeles to the east.

 $\underline{SM 6}$ – Santa Monica Big Blue Bus Line 6 is a commuter line providing service in the east-west direction from Santa Monica College to the Palms Community of Los Angeles and travels primarily along Venice Boulevard and National Boulevard within the study area. This line runs Monday through Friday at a peak frequency of approximately 25-30 minutes during peak commute hours. Santa Monica College in Santa Monica is the end of the Big Blue Bus Line 6 to the west and the intersection of Venice Boulevard/Culver Boulevard in Palms is the end of this Line's route to the east.

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

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





III.PROJECT CONDITIONS

Project Trip Generation

The proposed Mixed-Use Development includes a total site area of approximately 6.2 acres and includes 10,000 SF of High Turnover Restaurant, 10,000 SF of Quality Restaurant, 200 Mid-Rise Apartment Units, a Hotel with 148 Rooms, 201,000 SF of General Office space and 24,000 square feet of Retail Center. The proposed project site includes the conversion of existing 30,000 square feet of Mixed-Use land (10,000 square feet of Automobile Care Center, 8,000 square feet of Apparel Store and 12,000 square feet of Furniture Store. The project provides approximately 1,634 total parking spaces for the proposed land uses.

Weekday daily, a.m. and p.m. peak hour trips were estimated for the project using trip generation rates from the ITE publication entitled *Trip Generation*, 9th *Edition*. Trip generation rates and the resulting trips that would be generated by the proposed project are presented in **Table 4** on the following page. The project is estimated to generate approximately 4,124 new daily trips, 256 new trips during the AM peak hour and 301 new trips during the PM peak hour.

Project Trip Credits

Trip credits were applied to the estimated project trip generation to account for internal capture and passby trips based upon the guidelines approved by the City of Culver City and LADOT. Additionally, the proposed project will result in a net reduction of 300 light rail station parking spaces that would require project trip generation adjustments. ITE trip generation estimates allow for 1 trip credit per parking space; however to represent a conservative scenario and due to limited data available from ITE trip generation manual, only a 0.5 trip per parking space adjustment was taken into account based upon consultation with LADOT. The trip credits that were applied are shown in **Table 4.** The estimated trip generation was submitted to and approved by City of Culver City and LADOT staff as part of the MOU process. The approved MOU is attached in **Appendix A** of this report.

Project Trip Distribution

Development of future traffic forecasts for the proposed project consisted of a three-step process that includes project's potential trip generation, trip distribution and traffic assignment to the street system within the study area. **Figure 6** provides the Project Trip Distribution approved by City of Culver City utilized for all proposed project land uses. **Figure 7** illustrates the Project peak hour volumes.



Table 4 – Traffic Trip Generation Table

ITE Code	Land Use Description	Unit	No. of Units	Daily Rate	AM Rate	PM Rate	Daily Trips	% AM Trips In	% AM Trips Out	% PM Trips In	% PM Trips Out	AM Trips In	AM Trips Out	AM Trips	PM Trips In	PM Trips Out	PM Trips
932	High-Turnover (Sit-Down) Restaurant	1,000 Sq Ft	10	127.15	10.81	9.85	1272	55%	45%	60%	40%	59	49	108	59	40	99
	Pass-by credit for High turnover (25%)*						-318					-15	-12	-27	-15	-10	-25
931	Quality Restaurant	1,000 Sq Ft	10	89.95	0.81	7.49	900	82%	18%	67%	33%	7	1	8	50	25	75
223	Mid-Rise Apartment	Dwelling Unit(s)	200		0.30	0.39	840	31%	69%	58%	42%	19	41	60	45	33	78
310	Hotel	Room(s)	148	8.17	0.53	0.60	1210	5 9 %	41%	51%	49%	46	32	78	45	44	89
710	General Office Building (1)	1,000 Sq Ft	201	11.03	1.56	1.49	2218	88%	12%	17%	83%	276	38	314	51	248	299
826	Specialty Retail Center (PM)	1,000 Sq Ft	24	44.32		2.71	1064			44%	56%				29	36	65
	Specialty Retail Center (AM) ***	1,000 Sq Ft	24		1.20		960	60%	40%			17	12	29			
	Pass-by credit for retail under	r 300 ksf (25%)*					-506					-4	-3	-7	-7	-9	-16
	Credit for Existing Use (Light Rail	Parking															
093	Transit Station w/ Parking)	Space(s)	-300	2.51	0.50	0.50	-754	80%	20%	58%	42%	-125	-25	-150	-36	-114	-150
942	Automobile Care Center	1,000 Sq Ft	-10		2.25	3.11	-180	66%	34%	48%	52%	-15	-8	-23	-15	-16	-31
876	Apparel Store	1000 Sq Ft	-8	66.4	1.00	3.83	-532	80%	20%	50%	50%	-6	-2	-8	-15	-16	-31
890	Furniture Store (1)	1000 Sq Ft	-6	5.06	0.17	0.45	-32	69%	31%	48%	52%	-1	0	-1	-1	-2	-3
890	Furniture Store (2)	1000 Sq Ft	-6	5.06	0.17	0.45	-32	69%	31%	48%	52%	-1	0	-1	-1	-2	-3
	Subtotal of Trips						6110					257	123	380	188	258	446
	Internal Capture Credits (based upon ITE - 10% for Daily, 10% for AM, and 10% for PM peak)						-611					-26	-12	-38	-19	-26	-45
	Transit Credits (25% - adjacent to E station)**	xpo light rail					-1359					-58	-28	-85	-42	-58	-100
	Total trip generation						4,124					173	83	256	127	174	301

* Credit determined based upon Attachment I in LADOT Guidelines

** 25% max transit credit is based on the high land use density on the project site and 10-12 minute headways on Expo line

***AM Trips determined based on SANDAG Trip Generation Manual

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FIGURE 6 - PROJECT TRIP DISTRIBUTION PERCENTAGES FOR ALL LAND USES

LEGEND Study Intersection # D# Proposed Driveway Project Site XX% High Level Trip Distribution % XX – In-bound Intersection Level Trip Distribution % $xx \rightarrow$ XX – (xx)(xx)(xx)Out-bound Intersection Level Trip Distribution %





FIGURE 7 - PROJECT AM(PM) PEAK HOUR TURNING MOVEMENT VOLUMES

D#

am(pm)

am(pm) am(pm)-

am(pm)→ am(pm)→

Proposed Driveway Project Site

LEGEND

Study Intersection

In-bound Intersection Level Project Voumes

Out-bound Intersection Level Project Volumes





Existing (2014) With Project Conditions LOS

Existing (2014) With Project traffic volumes represent the sum of the Existing (2014) traffic volumes plus the project trips. **Table 5** presents the Existing (2014) With Project conditions peak hour V/C ratio and the corresponding LOS for each intersection.

Signalized Intersection		Existing (2014) Without ProjectLOS Analysis ResultsA.M. PeakP.M. PeakHourHour			Existing (2014) With ProjectLOS Analysis ResultsA.M. Peak HourP.M. Peak Hour				Change		
		V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	AM	РМ
1	Culver Blvd at Venice Blvd	0.548	А	0.491	А	0.562	А	0.503	А	0.014	0.012
2	Robertson Blvd at Venice Blvd	1.041	F	0.839	D	1.048	F	0.853	D	0.007	0.014
3	National Blvd at Venice Blvd	0.604	В	0.647	В	0.637	В	0.676	В	0.033	0.029
4	Helms Avenue at Venice Blvd	0.265	А	0.271	Α	0.268	А	0.278	А	0.003	0.007
5	Cattaraugus Avenue at Venice Blvd	0.713	С	0.607	В	0.746	С	0.647	В	0.003	0.010
6	Robertson Blvd/Higuera Street at Washington Blvd	0.690	В	0.660	В	0.693	В	0.662	В	0.003	0.002
7	National Blvd at Washington Blvd	0.680	В	0.788	С	0.690	В	0.800	С	0.010	0.012
8	Helms Avenue at Washington Blvd	0.435	А	0.469	А	0.444	А	0.478	А	0.009	0.009
9	Robertson Blvd at National Blvd	0.847	D	0.753	С	0.867	D	0.771	С	0.020	0.018
10	National Blvd at I-10 Eastbound On-Ramp	0.219	А	0.353	А	0.229	А	0.359	А	0.010	0.006
11	Wesley Street at National Blvd	0.343	А	0.317	А	0.349	А	0.323	А	0.006	0.006
12	La Cienega Blvd at Venice Blvd	0.787	С	0.797	С	0.797	С	0.802	D	0.010	0.005
13	Fairfax Blvd at Washington Blvd	0.692	В	0.658	В	0.701	С	0.662	В	0.009	0.004
14	Jefferson Blvd and National Blvd	0.846	D	0.655	В	0.854	D	0.664	В	0.008	0.009
15	Robertson Blvd and I-10 WB Offramp	0.593	А	0.810	D	0.601	В	0.818	D	0.008	0.008

Table 5 – Existing (2014) With Project Conditions Intersection LOS

Source: Kimley-Horn, July 2015

Significant impacts shown in bold.

Table 5 indicates that during the AM peak period, one intersection is projected to operate at LOS F, 2 intersections would operate at LOS D while the remaining 12 intersections would operate at LOS C or better. During the PM peak period, 3 intersections are projected to operate at LOS D while the remaining 12 intersections would operate at LOS C or better. In the AM peak period, there is an increase from 0.847 to **0.867** in volume to capacity ratio at the intersection Robertson Boulevard at National Boulevard when compared against the Existing (2014) Without Project conditions. Peak hour analysis worksheets for the Existing (2014) With Project conditions at each of the study intersections are illustrated in **Figure 8**.





Related Projects Trip Generation and Assignment

Traffic volumes from related projects (approved or pending projects expected to be built by the year 2019 in the proposed project vicinity) were added to the study intersections to simulate future traffic conditions with expected new growth in development in the area. The list of related projects was obtained from City of Culver City. Related projects that were constructed and operational were not included as part of the related projects analysis.

Table 6 lists the related projects and the trips generated by each related project based upon trip generation rates from the ITE publication entitled *Trip Generation*, 9th Edition. Figure 9 illustrates the location of these related projects and Figure 10 provides the projected peak hour trips for these related projects.



Table 6 – Estimated Weekday Trip Generation of Related Projects

ITE	Мар						Al	M Peak	Hour	Р	Hour	
#	#	Project Name	Address	Description	Project Phase	Daily	IN	OUT	TOTAL	IN	OUT	TOTAL
945	1	Union 76	10638 Culver Blvd.	Gas station and convenience store; 2,676 G.S.F.	Building Permit	2,700	101	97	198	122	121	243
230	2	Caroline Condominiums	3440 Caroline Avenue	Two (2) new single family dwellings, resulting in one (1) net new dwelling unit	Building Permit	12	0	1	1	1	0	1
710, 826	3	Washington/Landmark Mixed Use TOD(Platform)	8810, 8840, 8850 Washington Blvd. and 3920 Landmark	New commercial development consisting of 41,745 G.S.F. of restaurant and retail use, and 38,732 G.S.F. of office use.	Construction	3946	83	27	110	60	111	171
230	4	Duquesne Ave condominiums Dana Syles	4139-4145 Duquesne Avenue	Seven (7) condominiums units	Construction	41	1	2	3	3	1	4
270	5	Legado Mixed Use TOD	8770 Washington Blvd.	New mixed use development consisting of 115 residential units, retail (market & café) 31,240 G.S.F.	Construction	2,914	69	85	154	150	125	275
230	6	4 Unit Condo	4058 Madison Avenue	New four unit condominium. 7,422 s.f. total.	Construction	23	0	2	2	1	1	2
820	7	Warner Parking Structure	8511 Warner Drive	51,520 G.S.F. Retail/Restaurant; 784 parking spaces, five levels	Pre-Building Permit	3,112	94	76	170	116	109	225
715	8	Fresh Paint	9355 Culver Boulevard	Three story mixed use building consisting of a ground level gallery, second story office, and one appartment unit on the third floor.	Entitlement	63	8	1	9	2	7	9
770	9	Sony 8-story office building, production services, and Culver parking expansion, Comprehensive Plan Conformance Review	10202 Washington Blvd.	Construction of an 8-story 218,450 sq. ft. office building, 51,716 sq. ft. support building, and explansion of an existing parking structure. TOTAL demolition of 57,642 sq. ft. Net new square feet is 212,524 sq. ft.	Building Permit	1,334	165	23	188	32	159	191
210	10	4109-4111 Duquesne Avenue	4109-4111 Duquesne Avenue	Addition of two (2) new dwelling units to existing duplex	Entitlement	20	1	1	2	1	1	2
932, 710	11	Parcel B	9300 Culver Blvd.	18,000 G.S.F. of office, retail, and restaurant space	Pre-Building Permit	4,766	249	155	404	199	225	424



Table 6 -	- Estimated	Weekday	Trip	Generation	of Related	Projects	(Cont'd)
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ITE	ITE Map						AM Peak Hour			PM Peak Hour		
#	#	Project Name	Address	Description	Project Phase	Daily	IN	OUT	TOTAL	IN	OUT	TOTAL
710	12	Greg Reitz Rethink Development	8665 Hayden Place	Construct 62,765 G.S.F. of Office	Pre-Building Permit. Entitlements but no Building Permits.	705	87	12	99	16	79	95
710	13	Office Building	9919 Jefferson Blvd.	New 91,660 s.f. office building with tandem parking	Entitlement	1,470	183	25	208	35	171	206
441	14	Jazz Bakery	9814 Washington Blvd.	200 seat Performance Theatre with a museum and bakery/café 2-stories & estimated 7,500 square feet.	Pre-Application					2	2	4
254	15	Lenawee-Culver Plaza	3814 Lenawee Ave.	New 8 single family dwelling units and 89 units of assisted living and memory care.	Pre-Application	216	3	5	8	6	4	10
710	16	Culver Studios Amend. No. 6	9336 Washington Blvd.	Phase 1 - net increase of 38,727 square feet of office and support facilities. Phase 2 - net increase of 68,711 square feet of office and support facilities.	Entitlement	1,445	180	24	204	35	168	203
220, 710, 930, 931	17	Mixed-Use Development	8777 Washington Blvd.	New mixed use development consisting of 80 residential units, 9,989 square feet of retail, 5,444 square feet of restaurant, and 29,399 square feet of office.	Entitlement	561	43	26	69	35	64	99
945	18	United Oil	9825 W. National Blvd.	Gas Station with 6 fuel pumps	Construction	978	31	30	61	41	40	81
220	19	New 7 Story Apartment Complex	3822 S. Dunn Dr	New apartment complex with 86 dwelling units	Entitlement	572	9	35	44	34	19	53
710	20	Wrapper Office Building	5790 W. Jefferson Blvd.	151,000 s.f. office building	Entitlement	1,666	208	28	236	38	187	225
231	21	Condominium/ Townhouse Redevelopment	4241 Duquesne Ave.	Condominium with 2 dwelling units	Entitlement	13	0	1	1	1	1	2
	TOTAL RELATED PROJECT TRIPS					26,557	1,515	656	2,171	930	1,595	2,525

Source: Kimley-Horn, July 2015 and based on related projects from City of Culver City







Cumulative (2019) Base Conditions

The Cumulative (2019) Base Conditions traffic represents the sum of existing volumes, ambient growth and the traffic estimated from related projects. These volumes were assigned to the future baseline network that will be in place at the time the project is completed. As per the information and direction provided by LADOT and Culver City staff, 21 approved projects within a one-mile radius were included in this traffic impact analysis.

Regional ambient traffic growth was estimated as an annual percentage increase over the existing traffic volumes. A growth rate of 1.0% per year was applied to the peak hour traffic volumes to represent year 2019 traffic volumes, in accordance with discussions with LADOT and Culver City staff. The 1.0% increase per year is anticipated to account for projects that will be built by 2019 within the project vicinity. While this rate is slightly higher than the annual growth rate of 0.5% identified in *Congestion Management Program for Los Angeles County* (CMP) (Los Angeles County Metropolitan Transportation Authority, 2010), it was used to provide for a more a conservative analysis of Cumulative traffic conditions. Due to the fact that this project is located in an urban setting, it is unlikely that there will be a higher percentage of growth.

Cumulative (2019) Without Project Conditions LOS

Table 7 below presents a summary of the Cumulative (2019) Without Project conditions V/C ratio and the corresponding LOS for each intersection.

		LOS Analysis Results						
	Signalized Intersection	A.M. Peak	Hour	P.M. Peak Hour				
		V/C Ratio	LOS	V/C Ratio	LOS			
1	Culver Boulevard at Venice Boulevard	0.639	В	0.597	А			
2	Robertson Boulevard at Venice Boulevard	0.883*	D	0.703*	С			
3	National Boulevard at Venice Boulevard	0.634	В	0.708	С			
4	Helms Avenue at Venice Boulevard	0.285	Α	0.294	А			
5	Cattaraugus Avenue at Venice Boulevard	0.785	С	0.677	В			
6	Robertson Boulevard/Higuera Street at	0.701	С	0.753	G			
6	Washington Boulevard	0.781			C			
7	National Boulevard at Washington Boulevard	0.797	С	0.893	D			
8	Helms Avenue at Washington Boulevard	0.469	Α	0.510	А			
9	Robertson Boulevard at National Boulevard	0.930	Е	0.837	D			
10	National Boulevard at I-10 Eastbound On-Ramp	0.351	Α	0.543	А			
11	Wesley Street at National Boulevard	0.407	А	0.390	А			
12	La Cienega Boulevard at Venice Boulevard	0.837	D	0.848	D			
13	Fairfax Boulevard at Washington Boulevard	0.747	С	0.732	С			
14	Jefferson Boulevard and National Boulevard	0.945	Е	0.769	С			
15	Robertson Boulevard and I-10 WB Offramp	0.785	С	0.857	D			

Table 7 – Cumulative (2019) Without Project Conditions Intersection LOS

*Lane configuration from Expo Line Phase 2 was used in the analysis of Robertson Blvd and Venice Blvd. Source: Kimley-Horn, July 2015 and based on individual agency standards





Table 7 indicates that 2 intersections are projected to operate at LOS E, 2 intersections would operate at LOS D while the remaining 11 intersections would operate at LOS C or better during the AM peak period. During the PM peak period, 4 intersections would operate at LOS D while the remaining 11 intersections would operate at LOS C or better. The peak hour analysis worksheets for the Cumulative (2019) Without Project conditions are provided in **Appendix C** of this report.

The peak hour traffic volumes for the Cumulative (2019) Without Project conditions at each of the study intersections are illustrated in **Figure 11**.






Cumulative (2019) With Project Conditions LOS

Cumulative (2019) With Project traffic conditions add the estimated project traffic to the Cumulative Base conditions and are used to evaluate the net change in the traffic conditions and to identify potential traffic impacts associated with the proposed project. The Cumulative (2019) With Project traffic volumes represent the sum of existing traffic volumes raised by ambient growth factor, the traffic estimated from related projects, and the project trips. These volumes were assigned to the future baseline network that will be in place at the time the project is completed in 2019. **Table 8** presents the Cumulative (2019) With Project conditions peak hour V/C ratio and the corresponding LOS for each of the 15 project study intersections. For this scenario, the main project driveway was also analyzed as a full access signalized intersection.

		Cumulative Without Project LOS Analysis Results			Cumulative With Project LOS Analysis Results			Change			
	Signalized Intersection	A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour		- minge	
		V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	AM	РМ
1	Culver Blvd at Venice Blvd	0.639	В	0.597	А	0.653	В	0.609	В	0.014	0.012
2	Robertson Blvd at Venice Blvd	0.883	D	0.703	С	0.888	D	0.713	С	0.005	0.010
3	National Blvd at Venice Blvd	0.634	В	0.708	С	0.690	В	0.756	С	0.056	0.048
4	Helms Avenue at Venice Blvd	0.285	А	0.294	А	0.288	А	0.301	А	0.003	0.007
5	Cattaraugus Avenue at Venice Blvd	0.785	С	0.677	В	0.788	С	0.687	В	0.003	0.010
6	Robertson Blvd/Higuera Street at Washington Blvd	0.781	С	0.753	С	0.784	С	0.755	С	0.003	0.002
7	National Blvd at Washington Blvd	0.797	С	0.893	D	0.806	D	0.904	Е	0.009	0.011**
8	Helms Avenue at Washington Blvd	0.469	А	0.510	А	0.477	А	0.518	А	0.008	0.008
9	Robertson Blvd at National Blvd	0.930	Е	0.837	D	0.950	Е	0.856	D	0.020	0.019
10	National Blvd at I-10 Eastbound On-Ramp	0.351	А	0.543	А	0.370	А	0.549	А	0.019	0.006
11	Wesley Street at National Blvd	0.407	Α	0.390	А	0.413	Α	0.396	Α	0.006	0.006
12	La Cienega Blvd at Venice Blvd	0.837	D	0.848	D	0.847	D	0.853	D	0.010	0.005
13	Fairfax Blvd at Washington Blvd	0.747	С	0.732	С	0.756	С	0.737	С	0.009	0.005
14	Jefferson Blvd and National Blvd	0.945	Е	0.769	С	0.953	Е	0.778	С	0.008	0.009
15	Robertson Blvd and I-10 WB Offramp	0.785	С	0.857	D	0.797	С	0.865	D	0.012	0.008
16	Main Project Dwy	*	*	*	*	0.383	А	0.474	А	*	*

Table 8 - Cumulative (2019) With Project Conditions Intersection LOS

Source: Kimley-Horn, July 2015.

Significant impacts identified in bold.

* This is the Project's Main Driveway and Analysis was conducted only for the Cumulative (2019) With Project Conditions.

**Based on City of Culver City significant threshold criteria, a V/C change does not result in a significant impact.

Table 8 indicates that for Cumulative (2019) With Project conditions, 2 intersections are projected to operate at LOS E, 3 intersections would operate at LOS D while the remaining 11 intersections would operate at LOS C or better in the AM peak period. In the PM peak period, one intersection would operate



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at LOS E, 3 intersections are projected to operate at LOS D while the remaining 12 intersections would operate at LOS C or better. In the AM peak period, there is an increase from 0.930 to 0.950 in volume to capacity ratio at the intersection of Robertson Boulevard at National Boulevard when compared against the Cumulative (2019) Without Project conditions, resulting in a significant impact. In the PM peak period, there is an increase from 0.708 to 0.756 in volume to capacity at the intersection of National Boulevard at Venice Boulevard, resulting in a significant impact. Although there is an increase from 0.893 to 0.904 in volume to capacity at the intersection of Washington Boulevard at National Boulevard in the PM peak period, the intersection is located in the City of Culver City and based on the City of Culver City significance threshold criteria, the increase in volume to capacity does not result in a significant impact. Peak hour analysis worksheets for the Cumulative (2019) With Project conditions are provided in Appendix C of this report.

The peak hour traffic volumes for the Cumulative (2019) With Project conditions at each of the study intersections are illustrated in **Figure 12**.







Driveway Access Review

As per the site plan, 4 driveways are proposed for providing access to the site. One driveway would be located along Venice Boulevard and would provide right-in right-out access to/from the project site for parking and delivery. One driveway located along Venice Boulevard, north of Ellis Avenue, would provide access and parking to service and delivery trucks. A service and fire access driveway are also provided along Venice Boulevard frontage. One driveway located along National Boulevard, adjacent to Venice Boulevard, would provide full signalized access to/from the project site. Another driveway along National Boulevard, adjacent to Washington Boulevard would provide right-in right-out access to the project site. The 4th driveway will be located along Washington Boulevard and would provide in/out right-turn-only access to the project site main parking area as well as valet parking for the proposed hotel.

Driveway Queueing Analysis

Due to close spacing between the two (2) proposed site driveways on National Boulevard and nearby intersections of National Boulevard/Venice Boulevard and National Boulevard/Washington Boulevard, the queue lengths along National Boulevard under Future With Project conditions peak hour traffic were calculated. One of the driveways is proposed to be a signalized intersection. A Synchro microsimulation analysis was completed to determine these queue lengths as well as to determine any traffic operational issues at the adjacent intersections. The results indicated that the 85th percentile queue in the southbound direction, the 85th percentile queue is 46 feet in the PM peak. A supplemental memo with additional details are included in **Appendix D**.

Bicycle Network

There is a Class II dedicated bicycle lane along Venice Boulevard in both east and west directions. The City of Los Angeles Pedestrian and Bicycle Plan is found in **Appendix G.** A bicycle path (Class I) was constructed along most of the Expo Light Rail alignment except between National Boulevard/Wesley Street and Venice Boulevard/Robertson Boulevard. The city of Culver City is proposing to include a Class III (bike route) on Wesley Street and stripe Class II bike lanes on Washington Boulevard between Wesley Street and National Boulevard. The proposed development would construct a Class II bicycle lane on National Boulevard between Washington Boulevard and Venice Boulevard and Wellice Boulevard. These improvements combined with the City proposed improvements would result in a well-connected bicycle network in this area. The proposed development would also be responsible for restriping Washington Boulevard and National Boulevard, including bicycle lanes on both sides of Washington Boulevard.

Project Impacts

Based on the significant impact criteria as defined by City of Los Angeles, the proposed project would have a significant impact at the intersections of National Boulevard/Robertson Boulevard and National Boulevard/Venice Boulevard. In the AM peak period, there is an increase from 0.930 to 0.950 in volume to capacity at the intersection of Robertson Boulevard at National Boulevard when compared against the Cumulative Without Project conditions. In the PM peak period, there is an increase from 0.708 to 0.756 in volume to capacity at the intersection of National Boulevard at Venice Boulevard. Mitigation measures and other needed improvements as outlined in the following section were needed to bring the LOS at these two intersections to a minimum acceptable LOS D as well as to mitigate any queueing issues at these intersections.





Recommended Mitigation Measures

The significant impact at National/Robertson intersection can be mitigated by re-striping the eastbound approach to provide two left-turn, one through and one through-right lanes. The available roadway width would allow for an additional left-turn lane in the eastbound direction by re-striping without additional physical improvements to the intersection. Reduced lane widths for eastbound through and left turns lanes are proposed to allow sufficient width for the westbound receiving lane. This is expected to mitigate the LOS from D to an acceptable LOS C in the AM peak period for Existing (2014) With Project conditions at from LOS E to an acceptable LOS D in the AM peak period for Cumulative (2019) With Project conditions. Mitigation for National/Robertson is shown in **Appendix F**.

The significant impact at National/Venice intersection can be mitigated by re-striping the northbound approach to provide two left-turn, two through and one right-turn lanes. The available roadway width along with the widening along the project frontage would allow for an additional right-turn lane in the northbound direction by re-striping without additional physical improvements to the intersection. This may require minor striping re-alignment for the north leg of National Boulevard. Upon mitigation, this intersection is projected to operate at an acceptable LOS B in the PM peak period. A full size exhibit showing the proposed lane configuration as well on-street parking changes is included at the end of the report. Mitigation for National/Venice is shown in **Appendix F**.

Additionally, a southbound right turn lane is recommended at the intersection of Washington/National and Main Project Driveway/National to mitigate queuing issues at these intersections. These mitigation improvements are also shown in **Appendix F**.

As a result of the recommended mitigation for National/Robertson and National/Venice, a total of 35 onstreet parking spaces will be removed and 8 on-street spaces will be added. **Table 9** presents the location of both removed and added on-street parking in Culver City and the City of Los Angeles.

Street Name	Parking Space Location	Jurisdiction	Number of Spaces Added/ Removed
Venice Boulevard	National Boulevard and Robertson Boulevard	City of Los Angeles	7
National Boulevard	Venice Boulevard and Washington Boulevard	City of Culver City	18
National Boulevard	I-10 EB On-Ramp and Venice Boulevard	City of Los Angeles	3
National Boulevard	Livonia Avenue and Robertson Boulevard	City of Los Angeles	7
Venice Boulevard	National Boulevard and Robertson Boulevard	City of Los Angeles	-8

Source: Kimely-Horn, July 2015

Neighborhood Traffic Assessment

Based upon the input from local community, potential impacts to neighboring residential streets were qualitatively assessed to see if the proposed project would result in increased cut-through traffic on residential streets, specifically Higuera Street. Residential streets typically experience cut-through traffic when the adjacent intersections operate at or exceed their capacity levels. Higuera Street is the primary collector street that connects several residential streets southeast of the project site.





A review of the "With Project" LOS at the intersections of Higuera Street/Washington Boulevard/ Robertson Boulevard and Washington Boulevard/National Boulevard indicate "D" or better conditions. The increase in project related traffic at the intersection of Higuera Street/Washington Boulevard/Robertson Boulevard is fairly minor. Because of the additional available capacity at these intersections as well as the minimal amount of project traffic that would be going through Higuera Street/Washington Boulevard/National Boulevard, the project is not expected to result in or increase any cut-through traffic through these residential streets.

Congestion Management Plan (CMP) Compliance

The Los Angeles County Congestion Management Program (CMP) was developed in response to California Proposition 111, approved June 1990, and is intended to address regional congestion by linking land use, transportation, and air quality decisions.

Among the elements of the CMP is a land use analysis program which "requires local jurisdictions to analyze the impacts of land use decisions on the regional transportation system, for projects preparing an Environmental Impact Report (EIR)."

The CMP document identifies the County's CMP Highway System, and requires that Level of Service E or better be maintained on this network. The I-10 Freeway and the intersection of Venice/La Cienega Blvd are the nearest CMP facilities in the study area.

Analysis of a project's impact on a freeway segment would be required of any project that would add 150 trips or more in either direction during the AM or PM weekday peak hours. The project will not generate this level of traffic in either peak hour. Therefore, further analysis of CMP facilities is not required for CMP purposes.

An analysis of CMP monitored intersections is required if a project contributes 50 or more peak hour trips to the CMP monitored intersections. The project will not contribute 50 or more peak hour trips to this intersection, and therefore, additional evaluation for CMP purposes is not needed.

Freeway Impact Screening Analysis

A freeway impact screening analysis was conducted as per LADOT Traffic Study Guidelines. The methodology from the agreement between City of Los Angeles and Caltrans District 7 on freeway impact analysis procedures was used for the freeway impact screening analysis. As per the criteria provided by the agreement, if the proposed project meets any of the following criteria, the applicant will be directed to work with Caltrans and to prepare freeway impact analysis, utilizing Caltrans' "Guide for the Preparation of Traffic Impact Studies".

- The project's peak hour trips would result in a 1% or more increase to the freeway mainline capacity of a freeway segment operating at LOS E or F (based on an assumed capacity of 2,000 vehicles per hour per lane); or
- The project's peak hour trips would result in a 2% or more increase to the freeway mainline capacity of a freeway segment operating at LOS D (based on an assumed capacity of 2,000 vehicles per hour per lane); or
- The project's peak hour trips would result in a 1% or more increase to the capacity of a freeway off-ramp operating at LOS E or F (based on an assumed ramp capacity of 1,500 vehicles per hour per lane); or





• The project's peak hour trips would result in a 2% or more increase to the capacity of a freeway off-ramp operating at LOS D (based on an assumed ramp capacity of 1,500 vehicles per hour per lane).

Freeway Mainline Analysis

The above criteria was used for the freeway mainline analysis for this project. Based on the available freeway mainline traffic data from Caltrans, the project is expected to add less than 1% traffic to I-10 mainline capacity and therefore does not meet the mainline capacity criteria provided above. Project trips on the I-10 mainline freeway in the study area during the AM and PM peak hours are shown in the following table. The existing I-10 freeway in the study area is operating at LOS E based upon Highway Capacity Software (HCS) software. The LOS worksheets are attached to **Appendix E**. Per the 1% criteria on freeway mainline, the project would need to add 80 trips in the eastbound (EB) and westbound (WB) directions during the AM and PM peak hours to meet the traffic impact analysis requirement.

As shown in **Table 10**, the project is projected to add between 4 to 18 trips to the freeway mainline in each direction. Because the project trips are less than the required 80 trips, a freeway impact analysis is not required.

	Peak	Projec	t Trips	Facility C	Capacity*		teria for malysis**	Impact Analysis
Location	Hour	EB	WB	EB	WB	EB	WB	Required?
I-10 Freeway	AM	4	18	8,000	8,000	80	80	NO
Mainline at Venice Boulevard	PM	9	13	8,000	8,000	80	80	NO

Source: Kimley-Horn, July 2015

* The freeway capacity is 2,000 vehicles per hour per lane.

** The project's peak hour trips resulting in a 1% or more increase to the freeway mainline capacity for a freeway segment operating at LOS E or F would require a freeway impact analysis.

Freeway Ramp Analysis

The above criteria was used for the freeway off-ramp analysis for this project. Project trips on the I-10 freeway off-ramp at Robertson Boulevard during the AM and PM peak hours are shown in the following table. The freeway off-ramp is currently operating and projected to operate at LOS C in the AM peak hour and LOS B in the PM peak hour based upon Highway Capacity Software (HCS) software. The LOS worksheets are attached to **Appendix E**.

As shown in **Table 11** on the following page, the project would need to add 30 new trips on the freeway off-ramp during the AM and PM peak hours if the 2% criteria for the freeway off-ramp was used, the project would need to add 15 new trips on the freeway off-ramp during the AM and PM peak hours to meet the traffic impact analysis requirements. The project is projected to add 18 new trips during the AM peak hour and 13 new trips during the PM peak hour. Because the new trips during the AM peak hour or PM peak hour does not meet the 2% criteria for the off-ramp, further freeway off-ramp is not required.





Table 11 – Freeway Off-Ramp Analysis

Location	Peak Hour	Project Trips	Freeway Off-Ramp Capacity*	2% Criteria for Impact Analysis**	Significant Impact Criteria Met?	Impact Analysis Required?
I-10 Westbound Off-Ramp at	AM	18	1,500	30	NO	NO
Robertson Boulevard	PM	13	1,500	30	NO	NO

Source: Kimley-Horn, July 2015 * The freeway off-ramp capacity is 1,500 vehicles per hour per lane. ** The project's peak hour trips resulting in a 2% or more increase to the capacity of a freeway off-ramp operating at LOS D would require a freeway impact analysis.





IV. CONCLUSION

This report documents the results of a traffic impact analysis completed for the proposed Mixed-Use Development project located at the northwest corner of Washington Boulevard and National Boulevard in the cities of Culver City and Los Angeles. The project will replace existing land uses that include Automobile Care Center, Apparel Store, and two Furniture Stores. The following summarizes our key findings and conclusions:

- The proposed project site includes a mix of uses including a 10,000 square feet of High Turnover Restaurant, 10,000 square feet of Quality Restaurant, 200 Mid-Rise Apartment Units, a Hotel with 148 Rooms, 201,000 square feet of General Office space and 24,000 square feet of Retail Center. The proposed project site includes the conversion of existing 30,000 square feet of Mixed-Use land (10,000 square feet of Automobile Care Center, 8,000 square feet of Apparel Store and 12,000 square feet of Furniture Store) and Expo Light Rail Station 600 space surface parking lot.
- The project site will include three levels of subterranean parking, including up to 300 spaces that will be provided to the Metro (Expo) Light Rail Station transit use.
- The project will provide access to the site via 4 driveways one along Venice Boulevard, two along National Boulevard, and one along Washington Boulevard in addition to two truck delivery and fire access driveways located on Venice Boulevard. The driveway analysis indicates that the proposed driveways are adequate for the project traffic circulation.
- A driveway queueing analysis was conducted due to close spacing between two (2) proposed site driveways on National Boulevard and nearby interactions of National Boulevard/Venice Boulevard and National Boulevard/Washington Boulevard. The queuing at the main signalized driveway is not expected to cause blockage at nearby intersections under Future With Project conditions peak hour traffic.
- This traffic impact analysis analyzed 15 intersections within the cities of Culver City and Los Angeles.
- The project is estimated to generate approximately 4,124 new daily trips, 256 new trips during the AM peak hour and 301 new trips during the PM peak hour.
- This Traffic Impact Analysis concludes that the proposed project would generate a significant impact at the intersections of National Boulevard and Robertson Boulevard as well as National Boulevard and Venice Boulevard based on City of Los Angeles significant traffic impact criteria.
- The significant impact at National/Robertson intersection cannot be mitigated by a TDM plan with a cumulative goal of 20% reduction in project traffic. The significant impact can be mitigated by re-striping the eastbound approach to provide two left-turn, one through and one through-right lanes. The available roadway width would allow for an additional left-turn lane in the eastbound direction by re-striping without additional physical improvements to the intersection. Geometric constraints may exist for the eastbound left-turn movement and will be investigated during the design phase.



Kimley »Horn

- The significant impact at National/Venice intersection can be mitigated by re-striping the northbound approach to provide two left-turn, two through and one right-turn lanes. The available roadway width would allow for an additional right-turn lane in the northbound direction by restriping without additional physical improvements to the intersection. This may require minor striping re-alignment for the north leg of National Boulevard. Upon mitigation, this intersection is expected to operate at an acceptable LOS B in the PM peak period.
- As a result of the recommended mitigation for National/Robertson and National/Venice, a total of 35 on-street parking spaces will be removed and 8 on-street parking spaces will be added.
- The proposed development would construct a Class II bicycle lane on National Boulevard between Washington Boulevard and Venice Boulevard in both directions and will serve as a key connection for bicyclists traveling between Washington Boulevard and Venice Boulevard. The proposed development would also be responsible for restriping Washington Boulevard and National Boulevard, including bicycle lanes on both sides of Washington Boulevard and National Boulevard.
- Based on the project trip generation and distribution patterns in the With Project conditions, the LOS at the study intersections and the LOS at Higuera Street/Robertson Boulevard and Washington Boulevard intersection, the project is not expected to result in impacts to the residential streets.
- A CMP intersection impact screening analysis was conducted as per LADOT Traffic Study Guidelines. The project is expected to contribute less than 50 peak hour trips to the CMP monitored intersection of Venice Blvd and La Cienega Blvd and therefore no additional analysis of the CMP monitored intersection is required.
- A freeway impact screening analysis was conducted as per LADOT Traffic Study Guidelines. The project is expected to add less than 1% traffic to I-10 mainline and therefore no additional mainline analysis was required. For the intersection of I-10 westbound freeway off-ramp at Robertson Boulevard, the project would result in less than 2% increase in traffic during AM peak hour and PM peak hour and therefore no additional ramp analysis was required.





APPENDIX A

MEMORANDUM OF UNDERSTANDING (MOU)

Cily of Culver Cily Traffic Study Criteria Page 24

Attachment A

Memorandum Of Understanding For a Traffic Study

This Memorandum Of Understanding (MOU) acknowledges and agrees to all of the City of Culver City requirements and fees for the review of a traffic study for the following project:

Proje	ct Name: ct Address:	washington and	National Traffic and	Faiking barvices	
	ct Description:	200,000 Sq Ft.	GFA* Office /	GFAI	ndustrial
	ar be a second maxim	20,000 Sq Ft	OFA Retail / 2	00 Residen	
		18,000.Sg Ft	GFA Rest./ 1		Rooms
Proje	ct Horizon Year:	. 2017	Amblent Growth Rate		
Direc	ional Distribution:*	N: 25 %	S: 10 % E:	<u>35 %</u> W:	.30 %
		*Assuming same	travel distribution:	s for all Land Us	es
	eneration Rate(s):		See attached Trip (Seneration Table	a)
		rip generation rates to	or each land use)		
Land	Use:	ITE Code #:	ITE Code #:		
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City of Culver City Traffic Study Criteria Page 25

-The traffic study will show how each of the project's loading zones will be accessed using truck turn templates.

-The traffic study will show how parking for the Expositon Line will be serparated from parking from other uses at the project site.

-The traffic study will discuss the potential impact of the project on parking and traffic in the Hayden Tract.

-The traffic study will also show bus stops and all pedestrian drop-off locations and indicate if the proposed driveways are compatible with the existing bus stops and any required bus stop relocations required as a result of the proposed project.

Indica	ate Trip Credits To Be Requested (Amount Subject To City Approval):	Yes	No
1.	Existing Uses:	· DÌ	
2.	Pass-By Trips:	53	Ш
3.	Internal Trip Capture:	8	
4.	Transit Oriented Developments (TOD):	题.	Ξ
5.	Transportation Demand Management (TDM):		121

Maps:

The following maps shall be attached to the MOU:

- 1. A map showing the project's trip distribution percentages for each land use (inbound and outbound) at the study intersections and project driveways; and
- 2. A map showing the project's trips at the study intersections and project driveways.

Proposed Traffic Mitigation:

Any proposed traffic mitigation measure shall be listed and accompanied by a drawing of the existing and proposed improvements [including city boundary lines and existing / proposed property lines] and plans shall be of a minimum scale of one inch (1") equal to forty feet (40'-0").

Post-Occupancy Traffic Counts:

By signing below, the Property Owner / Developer / Applicant hereby agrees to pay for and submit to the City a post-occupancy traffic count analysis of the development to the satisfaction of the City. The analysis shall determine the amount of actual traffic (motor vehicle, bicycle and pedestrian) generated by the development compared to the ITE trip generation rates. The analysis shall include a traffic count of all onsite driveways taken upon reaching eighty five percent (85.0%) occupancy of the total building gross floor area or within one (1) year of the issuance of the first Temporary Certificate of Occupancy (TCO), as determined by the City. The data shall be used to confirm the findings in the approved traffic study, and shall not result in any additional traffic mitigation measures and/or conditions of approval on the subject project.

Congestion Management Plan (CMP):

This project shall also be subject to all City imposed CMP developer fees if the Planning Commission approval date is on or after the effective date of any City Council imposed CMP developer fees or as may be otherwise imposed by the City.

Fee:

Payment of a fee to the Engineering Division for the City's processing of a traffic study shall be required prior to the City's approval of the MOU. Said fee shall be in accordance with the most recent Fee Schedule as approved by the City Council.

City of Culver City Traffic Study Criteria Page 26

Signatures:

Property Owner / Applicant:

Developer / Applicant:

Name [Signed]:	
Name [Printed]:	
Title:	
Company:	
Address:	
City / State / Zip:	<u>ب</u>
Office:	()
Fax:	
Cell:	()
E-Mail:	<u> </u>

Thomas	Wulf
Develop	ment SVP
Lowe Er	terprises Real Estate Group
11777 Sa	an Vicente Blvd.
Los Ange	eles, CA 90049
(310)	571 - 4275
(310)	207 - 1132
()	
twulf@lo	weenterprises.com

Traffic Consultant:

Name:	Sri Chakravarthy, P.E., T.E.				
Title:	Traffic Engineer				
Company:	Kimley-Horn & Associates				
Address:	660 S. Figueroa St, Suite 1040				
City / State / Zip:	Los Angeles, CA 90014				
Office:	(213) 261 - 4037				
Fax:	()				
Cell:	(310) 621 - 2778				
E-Mail:	srikanth.chakravarth@kimley-horn.com				

If any of the intersection(s) to be studied as part of this traffic study are located within the City of Los Angeles, the unincorporated areas of Los Angeles County and/or impact any other public agency [i.e., CalTrans], then this MOU shall also be approved by the reviewing staff representative from each agency:

	City of Los Angeles:	County of Los Angeles:
Name [Signed]:	Carry	
Name [Printed]:	Edward Guerrero Jr.	
Title:	Trans. Engr.	•
Department:	Transportation	
.a	City of Los Angeles	County of Los Angeles
Address:	7166 W Manchester Av	
City / State / Zip:	L.A./CA/90045	
Office:	(213) 485-1062	()
Fax:		(·)
Cell:		()
E-Mail:		· · · · · · · · · · · · · · · · · · ·

City of Culver City Traffic Study Criteria Page 27

	Other Public Agency:	·	Other Public Agency:
Name [Signed]: Name [Printed]: Title: Department: Name; Address: City / State / Zip: Office: Fax:			
Cell: E-Mail:	()		()
Approved By:	/ oplicant	Date	· · · · · · · · · · · · · · · · · · ·
Developer – Applica	/	Date	
х. 	· · · · · · · · · · · · · · · · · · ·		· .
Traffic Consultant	B. 1 12 [23	Date / <u>Zo (y</u> Daté	Approved subject to changes specified in my 12/22/2014 amail. K.
			amail.

Note: This MOU shall become valid as of the date of the City's signature and shall expire one (1) year thereafter. If the "administrative draft" of the traffic study has not been filed with the City by the expiration date, this MOU shall also expire and a new MOU filing, fee, review and approval process shall be required.

BK-JM/abn

Study Intersections

No. 1 **Intersection:** Venice Blvd. - Culver Blvd, Los Angeles **No.** 2 Intersection: Venice Blvd. - Exposition Blvd/Robertson Blvd, Los Angeles, CA **No.** 3 Intersection: Venice Blvd. - National Blvd, Los Angeles, CA **No.** 4 Intersection: Venice Blvd. - Helms Ave, Los Angeles, CA **No.** 5 Intersection: Venice Blvd. - Cattaraugus Ave, Los Angeles, CA **No.** 6 Intersection: Washington Blvd. – Robertson Blvd, Culver City, CA **No.** 7 Intersection: Washington Blvd. – National Blvd, Culver City, CA **No.** 8 Intersection: Washington Blvd. - Helms Ave, Culver City, CA **No.** 9 Intersection: National Blvd. – Robertson Blvd, Los Angeles, CA **No.** 10 Intersection: National Blvd. - I-10 EB Ramps, Los Angeles, CA **No.** 11 Intersection: National Blvd. - Wesley St, Culver City, CA **No.** 12 Intersection: Venice Blvd. - La Cienega Blvd, Los Angeles, CA **No.** 13 Intersection: Washington Blvd. – Fairfax Ave, Los Angeles, CA **No.** 14 Intersection: National Blvd. – Jefferson Blvd, Los Angeles, CA **No.** 15 Intersection: Robertson Blvd. – I-10 WB Off-Ramp, Los Angeles, CA

Future Study Intersections

No. 16 Intersection: National Blvd. – Main Driveway, Culver City, CA

Residential Streets to Be Studied

No. 1 Segment: Wesley St – Between National Blvd and Higuera St, Culver City, CA

			Ī						AIN OF		M 4 9/-	l		ľ			ſ
ITE Codo	I and I lea Dacorintion	# 	No. of	Daily	AM Pate	Mq	Daily	% AM	Trips	M MM %		AM Trips AM Trips		AM Trine	PM Trips PM Trips		DM Trine
			Units	Rate		Rate	Trips	Trips In	out	Trips In	Out	ln	Out		u	Out	60 I I I
932	High-Turnover (Sit-Down) Restaurant	1,000 Sq Ft	10	127.15	10.81	9.85	1272	55%	45%	60%	40%	59	49	108	59	40	66
	Pass-by credit for High turnover (25%)*						-318					-15	-12	-27	-15	-10	-25
931	Quality Restaurant	1,000 Sq Ft	10	89.95	0.81	7.49	006	82%	18%	67%	33%	7	1	80	50	25	75
223	Mid-Rise Apartment	Dwelling Unit(s)	200		0.30	0.39	840	31%	%69	58%	42%	19	41	60	45	33	78
310	Hotel	Room(s)	148	8.17	0.53	0.60	1210	59%	41%	51%	49%	46	32	78	45	44	89
710	General Office Building (1)	1,000 Sq Ft	201	11.03	1.56	1.49	2218	88%	12%	17%	83%	276	38	314	51	248	299
826	Specialty Retail Center (PM)	1,000 Sq Ft	24	44.32		2.71	1064			44%	56%				29	36	65
	Specialty Retail Center (AM) ***	1,000 Sq Ft	24		1.2		960	60%	40%			17	12	29			
	Pass-by credit for retail under 300 ksf (25%)*						-506					4	ή	-7	<i>L-</i>	φ	-16
603	Credit for Existing Use (Light Rail Transit Station w/ Parking)	Parking Space(s)	-300	2.51	0.5	0.5	-754	80%	20%	58%	42%	-125	-25	-150	-36	-114	-150
942	Automobile Care Center	1,000 Sq Ft	-10		2.25	3.11	-180	66%	34%	48%	52%	-15	89	-23	-15	-16	-31
876	Apparel Store	1000 Sq Ft	89	66.4	1.00	3.83	-532	80%	20%	50%	50%	φ	-2	ę	-15	-16	-31
890	Furniture Store (1)	1000 Sq Ft	9	5.06	0.17	0.45	-32	%69	31%	48%	52%	Ļ	0	Ļ	-1	-2	'n
890	Furniture Store (2)	1000 Sq Ft	-6	5.06	0.17	0.45	-32	69%	31%	48%	52%	-1	0	-1	-1	-2	'n
	Subtotal of Trips						6110					257	123	380	188	258	446
	Internal Capture Credits (based upon ITE - 10% for Daily, 10% for AM, and 10% for PM peak)						-611					-26	-12	-38	-19	-26	-45
	Subtotal of Trips						5499					231	111	342	169	232	402
	Transit Credits (25% - adjacent to Expo light rail station)**	**(-1375					-58	-28	-85	-42	-58	-100
	Total trip generation						4124					173	83	256	127	174	301
	Without pass-by						4948					192	98	290	149	193	342
	* Credit determined based upon City of Culver City Guidelines	delines															
	** 25% max transit credit is based on the high land use density on the		project site and 10-12 minute headways on Expo line	2 minute h	eadways or	າ Expo line										5/26/2015	015

WASHINGTON AND NATIONAL TRAFFIC AND PARKING SERVICES TRIP GENERATION TABLE

in cha 4.1% III A UNITY OF THE PLACE OF THE PLACE AND USE GENERY OF THE PROJECT *** AM Trips determined based on SANDAG Trip Generation Manual







Kimley **»Horn**

APPENDIX B

TRAFFIC COUNT WORKSHEETS



8:15 AM 8:20 AM 8:25 AM 8:30 AM 8:35 AM 8:40 AM 8:45 AM 8:50 AM 8:55 AM Northbound Southbound Eastbound Westbound Peak 15-Min Flowrates Thru Thru Thru Left Right Left <u>Thru</u> Right Left Right Left Right Total All Vehicles Heavy Trucks Pedestrians **Bicycles** Railroad Stopped Buse Comments:

Report generated on 11/25/2014 5:27 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak	hour being	reported: I	nterse	ction P	eak					Me	thod for	or detei	rmining) peak h	our: To	otal Enteri	ng Volume
LOCATION	: Culver	Blvd Ve	enice	Blvd										QC	JOB #	#: 13149	822
CITY/STAT				2.1.0												ed, Nov	
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Period	-	orthbound)				bound)				bound)				bound)		Total	Totals
Beginning At			U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		. claic
4:00 PM		2 43	0	9	6	1	0	0	71	3	0	31	80	12	0	273	
4:05 PM		5 60	0	17	1	1	0	0	37	0	0	25	56	4	0	210	
4:10 PM	5	6 25	0	14	1	2	0	0	76	3	0	12	62	8	0	214	
4:15 PM	5	5 74	0	18	8	0	0	0	28	0	0	31	60	5	0	234	
4:20 PM		5 37	0	9	3	1	0	0	63	5	0	20	70	11	0	226	
4:25 PM		6 46	0	19	5	0	0	0	44	3	0	33	71	10	0	242	
4:30 PM		2 44	0	12	5	1	0	0	70	10	0	26	89	11	0	275	
4:35 PM		4 53 5 20	0	23	3	0	0	0	49	3	0	27	67	2	0	235	
4:40 PM 4:45 PM		5 39 2 64	0	15	3 7	1 0	0 0	1	64 61	1	0 0	29	93 50	7	0 0	262 247	
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5:00 PM		3 62	0	13	5	0	0	0	37	3	0	28	80	5	0	241	2889
5:05 PM		9 85	0	16	6	3	0	0	38	0	0	21	86	11	0	287	2966
5:10 PM		1 53	0	17	5	Ō	0	0	82	6	0	35	81	7	0	295	3047
5:15 PM	7	2 85	0	14	4	5	0	0	36	0	0	33	70	11	0	267	3080
5:20 PM		1 64	0	12	4	1	0	0	52	4	0	21	93	9	0	269	3123
5:25 PM		4 76	0	18	1	3	0	0	37	0	0	25	80	5	0	255	3136
5:30 PM		1 50	0	5	2	1	0	0	34	1	0	38	95	9	0	242	3103
5:35 PM		5 63	0	19	4	5	0	0	72	1	0	30	62	5	0	272	3140
5:40 PM		2 27	0	14	0	2	0	3	72	3	0	22	105	13	0	264	3142
5:45 PM 5:50 PM		6 63 3 48	0 0	19 10	1 7	4 0	0 0	0	60 57	2 1	0 0	28 23	81 99	8 11	0 0	280 263	3175 3197
5:55 PM		3 48 2 64	0	10	0	1	0		57 64	1	0	23	99 81	14	0	263	3197 3205
Peak 15-Min		Northbou				outhbour				astboun		20		Vestbour		210	0200
Flowrates	Left Th	ru Right	U	Left		Right	U	Left		Right	U	Left	Thru		<u>U</u>	To	otal
			-												-		

0 4 0 0 0 0 44 120 0 8 0 16 4 16 0 0 All Vehicles Heavy Trucks 0 Pedestrians Bicycles Railroad Stopped Buse Comments:

Report generated on 11/26/2014 9:49 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212



7409 SW Tech Center Dr, Ste B150 Tigard, OR 97223 503-620-4242 www.qualitycounts.net

Site Code: 13149819 Location: S Robertson Blvd/Exposition Blvd & Venice Blvd Date: 11/20/2014 Peak Hour: 8:00 AM - 9:00 AM Peak 15-minutes: 8:30 AM - 8:45 AM Peak Hour Factor: 0.943

		Exposit	ion Blvd (S	outhbound	d)		S Robert	son Blvd (Southbound	d)	I	Veni	ce Blvd (We	estbound)		I	S Rober	rtson Blvd	Northboun	d)		Venio	ce Blvd (Ea	astbound)				
	U- Turns	Right to Venice Blvd	Thru to S Robertso n Blvd	Left to Venice Blvd	Left to S Robertso n Blvd	II.	Right to Expositio n Blvd	Right	Thru	Left	U- Turns	Right	Right to Expositio n Blvd	Thru	Left	U- Turns	Right	Thru	Thru to Expositio n Blvd	Left	U- Turns	Right	Thru	Left	Left to Expositio n Blvd	Interval Totals	Hourly Totals	15-minute Totals
7:00 AM		22	4	11	21	0	0	0	0	0	0	19	0	93	0	0	1	15	0	3	0	2	63	19	0	273		
7:05 AM		21	7	7	22	0	0	0	0	0	0	10	0	58	1	0	0	35	0	4	0	4	78	26	0	273		
7:10 AM		29	7	9	21	0	0	0	0	0	0	20	0	91	2	0	5	18	0	4	0	1	122	22	0	351		897
7:15 AM		25	7	8	29	0	0	0	0	0	0	15	0	63	0	0	2	38	0	10	0	1	83	20	0	301		925
7:20 AM		22	7	12	27	0	0	0	0	0	0	13	0	97	1	0	1	31	0	4	0	4	101	23	0	343		995
7:25 AM		41	8	8	26	0	0	0	0	0	0	14	0	68	2	0	4	41	0	2	0	1	87	40	0	342		986
7:30 AM		25	7	11	30	0	0	0	0	0	0	12	0	107	0	0	0	32	0	3	0	3	140	25	0	395		1080
7:35 AM		43	5	9	18	0	0	0	0	0	0	10	0	67	0	0	Ζ	30	0	1	0	6	106	32	0	329		1066
7:40 AM		22	8	8	26	0	0	0	0	0	0	14	0	89	1	0	0	24	0	0	0	4	139	24	0	359		1083
7:45 AM		46	6	8	26	0	0	0	0	0	0	9	0	68	0	0	1	37	0	13	0	0	119	40	0	373		1061
7:50 AM 7:55 AM		45	8	12	15	0	0	0	0	0	0	20	0	78	2	0	1	31	0	0	0	5	138	29	0	383 330	1050	1115
7:55 AM 8:00 AM		51	6	9	24	0	0	0	0	0	0	15	0	49	2	0	2	33	0	/	0	2	97	33	0		4052	1086
8:00 AM 8:05 AM		40 45	1	8	23	0	0	0	0	0	0	17	0	<u>91</u> 70	1	0	3	36 40	0	6	0	2	148 105	27 33	0	410 345	4189 4261	1123 1085
8:05 AM		45 29	0	11	23	0	0	0	0	0	0	11	0	99	2	0	2	32	0	1	0	0	105	23	0	345 370	4261	1085
8:15 AM		58	7	11	25	0	0	0	0	0	0	14	0	64	2	0	2	41	0	0	0	0	98	38	0	370	4260	1087
8:20 AM		37	12	8	20	0	0	0	0	0	0	14	0	94	3	0	3	43	0	5	0	2	118	32	0	392	4400	1134
8:25 AM		33	12	4	16	0	0	0	0	0	0	11	0	70	0	0	5	43	0	11	0	1	117	31	0	350	4408	1114
8:30 AM		44	8	12	31	0	0	0	0	0	0	12	0	102	1	0	5	23	0	7	0	4	128	22	0	399	4412	1141
8:35 AM		58	5	8	22	0	0	0	0	0	0	13	0	65	3	0	9	55	0	4	0	3	87	37	0	369	4452	1118
8:40 AM		46	14	11	41	0	0	0	0	0	0	9	0	102	1	0	5	36	0	2	0	7	142	25	0	441	4534	1209
8:45 AM		51	7	11	24	0	0	0	0	0	0	9	0	65	4	0	4	41	0	9	0	0	92	33	0	350	4511	1160
8:50 AM		35	12	9	33	0	0	0	0	0	0	10	0	106	3	0	2	33	0	5	0	2	125	26	0	401	4529	1192
8:55 AM	0	43	8	13	22	0	0	0	0	0	0	10	0	73	2	0	6	40	0	2	1	4	96	40	0	360	4559	1111
Totals	0	911	183	227	586	0	0	0	0	0	0	311	0	1929	34	0	67	826	0	119	1	61	2656	700	0			



7409 SW Tech Center Dr, Ste B150 Tigard, OR 97223 503-620-4242

www.qualitycounts.net

Site Code: 13149819 Location: S Robertson Blvd/ Exposition Blvd & Venice Blvd Date: 11/20/2014

		Exposit	ion Blvd (S	outhbound	d)	1	S Rober	tson Blvd (Southboun	d)		Venio	ce Blvd (We	stbound)			S Rober	tson Blvd	Northbound	d)	1	Venic	e Blvd (Ea	stbound)			
	U- Turns	Right to Venice Blvd	Thru to S Robertso n Blvd	Left to Venice Blvd	Left to S Robertso n Blvd	U- Turns	Right to Expositio n Blvd	Right	Thru	Left	U- Turns	Right	Right to Expositio n Blvd	Thru	Left	U- Turns	Right	Thru	Thru to Expositio n Blvd	Left	U- Turns	Right	Thru	Left	Left to Expositio n Blvd	Interval Totals	Hourly Totals
7:00 AM	0	22	4	9	21	0	0	0	0	0	0	18	0	88	0	0	1	15	0	3	0	2	61	19	0	263	
7:05 AM	0	21	7	7	21	0	0	0	0	0	0	8	0	54	1	0	0	35	0	3	0	4	76	25	0	262	
7:10 AM	0	28	6	7	21	0	0	0	0	0	0	19	0	86	2	0	3	17	0	4	0	1	121	22	0	337	
7:15 AM	0	25	7	8	28	0	0	0	0	0	0	14	0	58	0	0	1	37	0	10	0	1	81	20	0	290	
7:20 AM	0	22	7	11	27	0	0	0	0	0	0	11	0	93	1	0	1	30	0	3	0	4	98	23	0	331	
7:25 AM	0	41	8	7	26	0	0	0	0	0	0	14	0	66	2	0	2	41	0	2	0	1	87	40	0	337	
7:30 AM	0	25	7	10	29	0	0	0	0	0	0	11	0	101	0	0	0	31	0	3	0	3	134	25	0	379	
7:35 AM	0	41	5	7	18	0	0	0	0	0	0	10	0	65	0	0	2	28	0	1	0	5	103	31	0	316	
7:40 AM	0	22	8	7	23	0	0	0	0	0	0	12	0	84	1	0	0	24	0	0	0	4	136	24	0	345	
7:45 AM	0	46	6	7	26	0	0	0	0	0	0	9	0	64	0	0	0	36	0	10	0	0	118	40	0	362	
7:50 AM	0	45	8	12	15	0	0	0	0	0	0	20	0	75	1	0	0	31	0	0	0	5	135	29	0	376	
7:55 AM	0	51	6	9	23	0	0	0	0	0	0	13	0	46	2	0	1	32	0	6	0	2	95	32	0	318	3916
8:00 AM	0	39	5	9	23	0	0	0	0	0	0	17	0	85	1	0	2	35	0	4	0	2	148	25	0	395	4048
8:05 AM	0	45	6	6	18	0	0	0	0	0	0	11	0	66	1	0	0	39	0	6	0	0	102	33	0	333	4119
8:10 AM	0	29	7	10	23	0	0	0	0	0	0	10	0	94	2	0	2	31	0	1	0	2	126	23	0	360	4142
8:15 AM	0	57	7	10	24	0	0	0	0	0	0	13	0	61	3	0	2	41	0	8	0	0	95	38	0	359	4211
8:20 AM	0	37	12	8	22	0	0	0	0	0	0	13	0	88	2	0	2	41	0	5	0	2	114	32	0	378	4258
8:25 AM	0	33	10	4	16	0	0	0	0	0	0	11	0	68	0	0	3	41	0	11	0	1	115	31	0	344	4265
8:30 AM	0	43	8	11	29	0	0	0	0	0	0	11	0	99	1	0	3	23	0	7	0	4	124	22	0	385	4271
8:35 AM	0	56	5	7	21	0	0	0	0	0	0	12	0	65	3	0	3	50	0	1	0	3	82	37	0	345	4300
8:40 AM	0	44	14	11	41	0	0	0	0	0	0	9	0	96	1	0	1	28	0	2	0	7	138	25	0	417	4372
8:45 AM	0	50	6	11	24	0	0	0	0	0	0	8	0	63	4	0	3	38	0	8	0	0	89	32	0	336	4346
8:50 AM	0	34	12	8	32	0	0	0	0	0	0	10	0	101	2	0	1	30	0	5	0	2	120	26	0	383	4353
8:55 AM	0	43	8	11	22	0	0	0	0	0	0	10	0	71	2	0	3	37	0	2	1	4	88	39	0	341	4376
Totals	0	899	179	207	573	0	0	0	0	0	0	294	0	1837	32	0	36	791	0	105	1	59	2586	693	0		



7409 SW Tech Center Dr, Ste B150

Tigard, OR 97223 503-620-4242 www.qualitycounts.net

Site Code: 13149819 Location: S Robertson Blvd/ Exposition Blvd & Venice Blvd Date: 11/20/2014

[Expos	ition Blvd (S	outhboun	d)	S Robe	ertson Blvd (Southboun	d)	Venio	ce Blvd (We	estbound)		S Rober	tson Blvd	(Northbound	d)		Venic	e Blvd (Ea	stbound)			
	Right to Venice Blvd	Thru to S Robertso n Blvd	Left to Venice Blvd	Left to S Robertso n Blvd	Right to Expositi n Blvd		Thru	Left	Right	Right to Expositio n Blvd	Thru	Left	Right	Thru	Thru to Expositio n Blvd	Left		Right	Thru	Left	Left to Expositio n Blvd	Interval Totals	Hourly Totals
7:00 AM	0	0	2	0	0	0	0	0	1	0	5	0	0	0	0	0		0	2	0	0	10	
7:05 AM	0	0	0	1	0	0	0	0	2	0	4	0	0	0	0	1		0	2	1	0	11	
7:10 AM	1	1	2	0	0	0	0	0	1	0	5	0	2	1	0	0		0	1	0	0	14	
7:15 AM	0	0	0	1	0	0	0	0	1	0	5	0	1	1	0	0		0	2	0	0	11	
7:20 AM	0	0	1	0	0	0	0	0	2	0	4	0	0	1	0	1		0	3	0	0	12	
7:25 AM	0	0	1	0	0	0	0	0	0	0	2	0	2	0	0	0		0	0	0	0	5	
7:30 AM	0	0	1	1	0	0	0	0	1	0	6	0	0	1	0	0		0	6	0	0	16	
7:35 AM	2	0	2	0	0	0	0	0	0	0	2	0	0	2	0	0		1	3	1	0	13	
7:40 AM	0	0	1	3	0	0	0	0	2	0	5	0	0	0	0	0		0	3	0	0	14	
7:45 AM	0	0	1	0	0	0	0	0	0	0	4	0	1	1	0	3		0	1	0	0	11	
7:50 AM	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0		0	3	0	0	7	
7:55 AM	0	0	0	1	0	0	0	0	2	0	3	0	1	1	0	1		0	2	1	0	12	136
8:00 AM	1	2	0	0	0	0	0	0	0	0	6	0	1	1	0	2		0	0	2	0	15	141
8:05 AM	0	0	2	0	0	0	0	0	0	0	4	0	1	1	0	1		0	3	0	0	12	142
8:10 AM	0	0	1	0	0	0	0	0	1	0	5	0	0	1	0	0		1	1	0	0	10	138
8:15 AM	1	0	1	2	0	0	0	0	1	0	3	0	1	0	0	1		0	3	0	0	13	140
8:20 AM	0	0	0	0	0	0	0	0	0	0	6	1	1	2	0	0		0	4	0	0	14	142
8:25 AM	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0		0	2	0	0	6	143
8:30 AM	1	0	1	2	0	0	0	0	1	0	3	0	2	0	0	0		0	4	0	0	14	141
8:35 AM	2	0	1	1	0	0	0	0	1	0	0	0	 6	5	0	3	Į	0	5	0	0	24	152
8:40 AM	2	0	0	0	0	0	0	0	0	0	6	0	4	8	0	0	Į	0	4	0	0	24	162
8:45 AM	1	1	0	0	0	0	0	0	 1	0	2	0	 1	3	0	1		0	3	1	0	14	165
8:50 AM	1	0	1	1	0	0	0	0	0	0	5	1	1	3	0	0	Į	0	5	0	0	18	176
8:55 AM	0	0	2	0	0	0	0	0	0	0	2	0	3	3	0	0		0	8	1	0	19	183
Totals	12	4	20	13	0	0	0	0	17	0	92	2	31	35	0	14		2	70	7	0		



7409 SW Tech Center Dr, Ste B150 Tigard, OR 97223 503-620-4242

www.qualitycounts.net

Site Code: 13149819 Location: S Robertson Blvd/ Exposition Blvd & Venice Blvd Date: 11/20/2014

		Exposit	ion Blvd (Se	outhbound	d)		S Rober	tson Blvd (S	Southbound	d)		Veni	ce Blvd (We	estbound)			S Rober	tson Blvd (Northbound	i)		Venic	e Blvd (Ea	stbound)			
	Peds		Thru to S Robertso n Blvd	Left to Venice Blvd	Left to S Robertso n Blvd		Right to Expositio n Blvd	Right	Thru	Left	Peds	Right	Right to Expositio n Blvd	Thru	Left	Peds	Right	Thru	Thru to Expositio n Blvd	Left	Peds	Right	Thru	Left	Left to Expositio n Blvd	Interval Totals	Hourly Totals
7:00 AM	18	0	0	0	0	18	0	0	0	0	4	1	0	2	0	0	0	0	0	0	0	0	3	0	0	46	
7:05 AM	0	0	0	0	0	0	0	0	0	0	5	2	0	1	0	0	0	0	0	1	0	0	1	0	0	10	
7:10 AM	12	0	0	0	0	12	0	0	0	0	16	1	0	2	0	0	0	0	0	0	0	0	1	0	0	44	
7:15 AM	14	0	0	0	0	14	0	0	0	0	18	1	0	4	0	0	0	0	0	0	0	0	1	0	0	52	
7:20 AM	14	0	0	0	0	14	0	0	0	0	23	2	0	4	0	0	0	1	0	0	0	0	0	1	0	59	
7:25 AM	3	0	0	0	0	3	0	0	0	0	3	0	0	1	0	0	0	1	0	0	0	0	3	0	0	14	
7:30 AM	1	0	0	0	0	1	0	0	0	0	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	6	
7:35 AM	0	0	0	0	0	0	0	0	0	0	25	0	0	7	0	0	0	3	0	1	0	0	2	0	0	38	
7:40 AM	2	0	0	0	0	2	0	0	0	0	2	2	0	3	0	0	0	0	0	0	0	0	3	0	0	14	
7:45 AM	12	0	0	0	0	12	0	0	0	0	32	0	0	6	0	0	0	0	0	0	0	0	2	0	0	64	
7:50 AM	8	0	0	0	0	8	0	0	0	0	6	0	0	2	0	0	0	0	0	0	0	0	2	0	0	26	
7:55 AM	4	0	0	0	0	4	0	0	0	0	6	2	0	4	0	0	0	0	0	0	0	0	2	0	0	22	395
8:00 AM	17	0	0	0	0	17	0	0	0	0	19	0	0	7	0	0	0	0	0	0	0	0	3	0	0	63	412
8:05 AM	8	0	0	0	0	8	0	0	0	0	7	0	0	3	0	1	0	0	0	0	0	0	4	0	0	31	433
8:10 AM	31	0	0	0	0	31	0	0	0	0	17	1	0	3	0	0	0	1	0	0	0	0	1	0	0	85	474
8:15 AM	6	0	0	0	0	6	0	0	0	0	6	1	0	1	0	3	0	0	0	0	0	0	2	0	0	25	447
8:20 AM	35	0	0	0	0	35	0	0	0	0	28	0	0	3	0	2	0	0	0	0	0	0	2	0	0	105	493
8:25 AM	9	0	0	0	0	9	0	0	0	0	9	0	0	0	0	1	0	0	0	0	0	0	3	0	0	31	510
8:30 AM	21	0	0	0	0	21	0	0	0	0	17	1	0	9	0	0	0	0	0	0	0	0	1	0	0	70	574
8:35 AM	22	0	0	0	0	22	0	0	0	0	19	1	0	4	0	0	0	0	0	0	0	0	1	0	0	69	605
8:40 AM	5	0	0	0	0	5	0	0	0	0	4	0	0	6	0	0	0	0	0	0	1	0	3	0	0	24	615
8:45 AM	1	0	0	0	0	1	0	0	0	0	22	1	0	3	0	1	0	1	0	0	0	0	4	0	0	34	585
8:50 AM	33	0	0	0	0	33	0	0	0	0	8	0	0	8	0	0	0	0	0	0	0	0	2	0	0	84	643
8:55 AM		0	0	0	0	3	0	0	0	0	13	0	0	1	0	0	0	2	0	0	0	0	6	0	0	28	649
Totals	279	0	U	0	0	279	0	0	U	0	311	17	0	85	0	8	0	9	0	2	1	U	52	1	0		



7409 SW Tech Center Dr, Ste B150 Tigard, OR 97224 971-223-0003 www.qualitycounts.net

Site Code: 13149819 Location: S Robertson Blvd/Exposition Blvd & Venice Blvd Date: 11/20/2014 Peak Hour: 8:00 AM - 9:00 AM Peak 15-minutes: 8:30 AM - 8:45 AM Peak Hour Factor: 0.943

		Exposit	ion Blvd (S	outhbound	d)		S Rober	tson Blvd (Southbound	d)		Veni	ce Blvd (We	estbound)			S Rober	tson Blvd (Northbound	d)		Venio	ce Blvd (Ea	istbound)			
	U- Turns	Vonico	Thru to S Robertso n Blvd		Left to S Robertso n Blvd		Right to Expositio n Blvd	Right	Thru	Left	U- Turns	Right	Right to Expositio n Blvd	Thru	Left	U- Turns	Right	Thru	Thru to Expositio n Blvd	Left	U- Turns	Right	Thru	Left	Left to Expositio n Blvd	Interval Totals	Hourly Totals
7:00 AM	0	72	18	27	64	0	0	0	0	0	0	49	0	242	3	0	6	68	0	11	0	7	263	67	0	897	
7:15 AM	0	88	22	28	82	0	0	0	0	0	0	42	0	228	3	0	7	110	0	16	0	6	271	83	0	986	
7:30 AM	0	90	20	28	74	0	0	0	0	0	0	36	0	263	1	0	2	86	0	4	0	13	385	81	0	1083	
7:45 AM	0	142	20	29	65	0	0	0	0	0	0	44	0	195	3	0	4	101	0	20	0	7	354	102	0	1086	4052
8:00 AM	0	114	20	28	64	0	0	0	0	0	0	39	0	260	4	0	6	108	0	14	0	5	380	83	0	1125	4280
8:15 AM	0	128	29	23	64	0	0	0	0	0	0	38	0	228	6	0	11	125	0	25	0	3	333	101	0	1114	4408
8:30 AM	0	148	27	31	94	0	0	0	0	0	0	34	0	269	5	0	19	114	0	13	0	14	357	84	0	1209	4534
8:45 AM	0	129	27	33	79	0	0	0	0	0	0	29	0	244	9	0	12	114	0	16	1	6	313	99	0	1111	4559
Totals	0	911	183	227	586	0	0	0	0	0	0	311	0	1929	34	0	67	826	0	119	1	61	2656	700	0		





7409 SW Tech Center Dr., Ste B150 Tigard, OR 97223 503-620-4242 www.qualitycounts.net

Site Code: 13149819 Location: S Robertson Blvd/ Exposition Blvd & Venice Blvd Date: 11/19/2014 Peak Hour: 5:00 PM - 6:00 PM Peak 15-minutes: 5:45 PM - 6:00 PM Peak Hour Factor: 0.966

		Exposit	ion Blvd (S	outhbound	d)	I	S Robert	son Blvd (Southboun	d)	I	Veni	e Blvd (We	estbound)			S Rober	tson Blvd	(Northbound	d)		Venic	e Blvd (Ea	stbound)				
	U- Turns	Right to Venice Blvd	Thru to S Robertso n Blvd	Left to Venice Blvd	Left to S Robertso n Blvd		Right to Expositio n Blvd	Right	Thru	Left	U- Turns	Right	Right to Expositio n Blvd	Thru	Left	U- Turns	Right	Thru	Thru to Expositio n Blvd	Left	U- Turns	Right	Thru	Left	Left to Expositio n Blvd	Interval Totals	Hourly Totals	15-minute Totals
4:00 PM	0	22	11	11	16	0	0	0	0	0	0	6	0	94	4	0	4	18	0	2	0	5	120	9	0	322		
4:05 PM		22	1	5	10	0	0	0	0	0	0	4	0	58	4	0	3	41	0	5	0	3	96	16	0	268		
4:10 PM		23	9	9	17	0	0	0	0	0	0	2	0	56	3	0	3	12	0	2	0	1	94	14	0	245		835
4:15 PM		29	4	11	18	0	0	0	0	0	0	8	0	57	3	0	3	21	0	6	0	2	98	22	0	282		795
4:20 PM		24	8	14	13	0	0	0	0	0	0	5	0	77	3	0	5	15	0	8	0	1	92	15	0	280		807
4:25 PM		41	3	4	11	0	0	0	0	0	0	5	0	81	2	0	6	24	0	5	0	1	109	14	0	306		868
4:30 PM		27	3	7	11	0	0	0	0	0	0	5	0	100	4	0	2	19	0	4	0	3	112	14	0	311		897
4:35 PM 4:40 PM		28	6		2	0	0	0	0	0	0	8	0	69	2	0	9	23	0	8	0	4	109	15	0	290		907
4:40 PM 4:45 PM		18	6	13		0	0	0	0	0	0	8	0	103 70	2	0	2	27	0	4	0	3	110	13	0	315 310		916 915
4:45 PM 4:50 PM	-	24 20	5	9	9 12	0	0	0	0	0	0	8 10	0	70 96	0	0	2	23 20	0	5	0	3	118 113	34 12	0	310		936
4:50 PM		38	0	0	12	0	0	0	0	0	0	10	0	96 71	4	0	9	20	0	5	0	2	105	12	0	288	3528	936
5:00 PM		15	2	11	13	0	0	0	0	0	0	12	0	92	2	0	3	22	0	3	0	1	103	13	0	200	3502	895
5:05 PM	-	31	2	5	0	0	0	0	0	0	0	3	0	92 77	0	0	0	38	0	15	0	3	104	31	0	314	3548	898
5:10 PM		20	3	11	23	0	0	0	0	0	0	6	0	99	0	0	3	26	0	6	0	7	131	22	0	357	3660	967
5:15 PM		27	1	6	21	0	0	0	0	0	Ő	6	0	69	1	0	5	34	0	8	0	2	112	15	0	307	3685	978
5:20 PM		26	8	13	31	0	0	0	0	0	0	10	0	89	6	0	3	24	0	6	0	5	100	15	0	336	3741	1000
5:25 PM	0	33	8	12	11	0	0	0	0	0	0	4	0	68	2	0	4	36	0	7	0	3	86	23	0	297	3732	940
5:30 PM	0	32	11	3	17	0	0	0	0	0	0	4	0	96	8	0	4	27	0	8	0	2	100	14	0	326	3747	959
5:35 PM	0	28	7	14	20	0	0	0	0	0	0	5	0	73	0	0	2	27	0	6	0	2	112	24	0	320	3777	943
5:40 PM	0	27	18	13	19	0	0	0	0	0	0	3	0	103	0	0	2	27	0	7	0	0	116	16	0	351	3813	997
5:45 PM	0	34	9	5	18	0	0	0	0	0	0	4	0	75	0	0	1	44	0	12	0	4	106	23	0	335	3838	1006
5:50 PM		22	6	5	15	0	0	0	0	0	0	9	0	92	5	0	1	25	0	12	0	2	102	21	0	317	3844	1003
5:55 PM	0	33	10	7	17	0	0	0	0	0	0	10	0	86	4	0	1	46	0	6	0	1	113	28	0	362	3918	1014
Totals	0	644	157	208	345	0	0	0	0	0	0	148	0	1951	61	0	80	636	0	155	0	66	2558	437	0			



7409 SW Tech Center Dr, Ste B150 Tigard, OR 97223

 Tigard, OR 97223
 Site Code:
 131

 503-620-4242
 Location:
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 www.qualitycounts.net
 Date:
 11/1

Site Code: 13149819 Location: S Robertson Blvd/ Exposition Blvd & Venice Blvd Date: 11/19/2014

]		Exposi	tion Blvd (S	outhbound	d)		S Robert	tson Blvd (Southboun	d)		Veni	ce Blvd (We	stbound)			S Rober	tson Blvd	Northbound	I)		Venio	ce Blvd (Ea	istbound)			
	U- Turns	Right to Venice Blvd	Thru to S Robertso n Blvd		Left to S Robertso n Blvd		Right to Expositio n Blvd	Right	Thru	Left	U- Turns	Right	Right to Expositio n Blvd	Thru	Left	U- Turns	Right	Thru	Thru to Expositio n Blvd	Left	U- Turns	Right	Thru	Left	Left to Expositio n Blvd	Interval Totals	Hourly Totals
4:00 PM	0	22	11	10	16	0	0	0	0	0	0	6	0	91	4	0	4	18	0	2	0	5	114	9	0	312	
4:05 PM	0	22	1	5	10	0	0	0	0	0	0	4	0	57	3	0	3	41	0	4	0	3	95	15	0	263	
4:10 PM	0	23	7	6	16	0	0	0	0	0	0	2	0	55	3	0	3	12	0	2	0	1	89	13	0	232	
4:15 PM	0	28	4	10	18	0	0	0	0	0	0	8	0	56	3	0	2	21	0	5	0	2	96	22	0	275	
4:20 PM	0	24	7	14	13	0	0	0	0	0	0	5	0	75	2	0	2	15	0	8	0	0	89	15	0	269	
4:25 PM	0	40	3	4	11	0	0	0	0	0	0	5	0	79	1	0	6	24	0	4	0	1	106	14	0	298	
4:30 PM	0	27	3	5	11	0	0	0	0	0	0	5	0	98	3	0	2	19	0	4	0	3	110	14	0	304	
4:35 PM	0	28	6	6	2	0	0	0	0	0	0	7	0	68	2	0	9	23	0	8	0	4	109	15	0	287	
4:40 PM	0	17	6	13	7	0	0	0	0	0	0	7	0	101	2	0	2	27	0	3	0	3	105	12	0	305	
4:45 PM	0	24	5	8	9	0	0	0	0	0	0	8	0	68	0	0	2	23	0	5	0	2	115	34	0	303	
4:50 PM	0	20	8	6	12	0	0	0	0	0	0	10	0	94	2	0	2	20	0	5	0	2	112	12	0	305	
4:55 PM	0	38	5	7	5	0	0	0	0	0	0	3	0	69	1	0	7	17	0	4	0	6	104	13	0	279	3432
5:00 PM	0	15	3	9	12	0	0	0	0	0	0	11	0	90	3	0	2	22	0	3	0	1	97	14	0	282	3402
5:05 PM	0	31	2	5	9	0	0	0	0	0	0	3	0	77	0	0	0	37	0	14	0	3	96	31	0	308	3447
5:10 PM	0	19	3	11	22	0	0	0	0	0	0	6	0	97	0	0	2	26	0	6	0	7	127	22	0	348	3563
5:15 PM	0	27	1	6	21	0	0	0	0	0	0	6	0	69	1	0	5	33	0	7	0	2	112	15	0	305	3593
5:20 PM	0	25	8	12	30	0	0	0	0	0	0	10	0	84	6	0	3	24	0	6	0	5	96	15	0	324	3648
5:25 PM	0	33	8	11	11	0	0	0	0	0	0	4	0	68	2	0	4	34	0	7	0	3	82	23	0	290	3640
5:30 PM	0	32	11	3	16	0	0	0	0	0	0	4	0	96	8	0	4	25	0	7	0	2	97	14	0	319	3655
5:35 PM	0	28	7	14	20	0	0	0	0	0	0	5	0	71	0	0	2	27	0	6	0	2	111	24	0	317	3685
5:40 PM	0	27	18	13	19	0	0	0	0	0	0	3	0	101	0	0	1	27	0	6	0	0	112	16	0	343	3723
5:45 PM	0	34	9	5	18	0	0	0	0	0	0	4	0	75	0	0	0	43	0	12	0	4	105	23	0	332	3752
5:50 PM	0	22	6	5	15	0	0	0	0	0	0	8	0	90	3	0	1	25	0	12	0	2	96	21	0	306	3753
5:55 PM	0	33	10	7	17	0	0	0	0	0	0	10	0	86	4	0	1	46	0	5	0	1	110	28	0	358	3832
Totals	0	639	152	195	340	0	0	0	0	0	0	144	0	1915	53	0	69	629	0	145	0	64	2485	434	0		



7409 SW Tech Center Dr, Ste B150

Tigard, OR 97223 503-620-4242 www.qualitycounts.net

Site Code: 13149819 Location: S Robertson Blvd/ Exposition Blvd & Venice Blvd Date: 11/19/2014

	Exposi	tion Blvd (S	outhbound	d)		S Robert	son Blvd (Southboun	d)	Venio	ce Blvd (We	estbound)		S Rober	tson Blvd (Northbound	d)		Venic	e Blvd (Ea	stbound)		1	
	Right to Venice Blvd	Thru to S Robertso n Blvd	Left to Venice Blvd	Left to S Robertso n Blvd	E	Right to Expositio n Blvd	Right	Thru	Left	Right	Right to Expositio n Blvd	Thru	Left	Right	Thru	Thru to Expositio n Blvd	Left		Right	Thru	Left	Left to Expositio n Blvd	Interval Totals	Hourly Totals
4:00 PM	0	0	1	0		0	0	0	0	0	0	3	0	0	0	0	0		0	6	0	0	10	
4:05 PM	0	0	0	0		0	0	0	0	0	0	1	1	0	0	0	1		0	1	1	0	5	
4:10 PM	0	2	3	1		0	0	0	0	0	0	1	0	0	0	0	0		0	5	1	0	13	
4:15 PM	1	0	1	0		0	0	0	0	0	0	1	0	1	0	0	1		0	2	0	0	7	
4:20 PM	0	1	0	0		0	0	0	0	0	0	2	1	3	0	0	0		1	3	0	0	11	
4:25 PM	1	0	0	0		0	0	0	0	0	0	2	1	0	0	0	1		0	3	0	0	8	
4:30 PM	0	0	2	0		0	0	0	0	0	0	2	1	0	0	0	0		0	2	0	0	7	
4:35 PM	0	0	1	0		0	0	0	0	1	0	1	0	0	0	0	0		0	0	0	0	3	
4:40 PM	1	0	0	0		0	0	0	0	0	0	2	0	0	0	0	1		0	5	1	0	10	
4:45 PM	0	0	1	0		0	0	0	0	0	0	2	0	0	0	0	0		1	3	0	0	7	
4:50 PM	0	0	0	0		0	0	0	0	0	0	2	2	1	0	0	0		0	1	0	0	6	
4:55 PM	0	2	0	0		0	0	0	0	1	0	2	0	2	0	0	1		0	1	0	0	9	96
5:00 PM	0	0	2	1		0	0	0	0	1	0	2	0	1	0	0	0		0	7	0	0	14	100
5:05 PM	0	0	0	0		0	0	0	0	0	0	0	0	0	1	0	1		0	4	0	0	6	101
5:10 PM	1	0	0	1		0	0	0	0	0	0	2	0	1	0	0	0		0	4	0	0	9	97 92
5:15 PM	0	0	0	0		0	0	0	0	0	0	0	0	0	1	0	1		0	0	0	0	2	92
5:20 PM	1	0	1	1		0	0	0	0	0	0	5	0	0	0	0	0		0	4	0	0	12	93
5:25 PM	0	0	1	0		0	0	Ö	0	0	0	0	0	0	2	0	0		0	4	0	0	7	92 92
5:30 PM	0	0	0	1		0	0	0	0	0	0	0	0	0	2	0	1		0	3	0	0	7	92
5:35 PM	0	0	0	0		0	0	0	0	0	0	2	0	0	0	0	0	1	0	1	0	0	3	92 90
5:40 PM	0	0	0	0		0	0	Ö	0	0	0	2	0	1	0	0	1		0	4	0	0	8	90
5:45 PM	0	0	0	0		0	0	0	0	0	0	0	0	1	1	0	0		0	1	0	0	3	86
5:50 PM	0	0	0	0		0	0	Ö	0	1	0	2	2	0	0	0	0		0	6	0	0	11	91
5:55 PM	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	1		0	3	0	0	4	86
Totals	5	5	13	5		0	0	0	0	4	0	36	8	11	7	0	10		2	73	3	0	1	



7409 SW Tech Center Dr, Ste B150 Tigard, OR 97223 503-620-4242

www.qualitycounts.net

Site Code: 13149819 Location: S Robertson Blvd/ Exposition Blvd & Venice Blvd Date: 11/19/2014

		Exposit	ion Blvd (S	outhbound	d)	1	S Rober	tson Blvd (Southboun	d)		Venio	ce Blvd (We	stbound)			S Rober	tson Blvd (Northbound)		Venic	e Blvd (Ea	istbound)			
	Peds	Right to Venice Blvd	Thru to S Robertso n Blvd	Left to Venice Blvd	Left to S Robertso n Blvd		Right to Expositio n Blvd	Right	Thru	Left	Peds	Right	Right to Expositio n Blvd	Thru	Left	Peds	Right	Thru	Thru to Expositio n Blvd	Left	Peds	Right	Thru	Left	Left to Expositio n Blvd	Interval Totals	Hourly Totals
4:00 PM	12	0	0	0	0	12	0	0	0	0	15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	40	
4:05 PM	5	0	0	0	0	5	0	0	0	0	5	0	0	0	0	0	0	0	0	0	1	0	5	0	0	21	
4:10 PM	8	0	0	0	0	8	0	0	0	0	11	0	0	4	0	0	0	0	0	0	0	0	5	0	0	36	
4:15 PM		0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	13	
4:20 PM		0	0	0	0	4	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	4	0	0	15	
4:25 PM		0	0	0	0	6	0	0	0	0	14	0	0	0	0	0	0	0	0	0	1	0	1	0	0	28	
4:30 PM		0	0	0	0	3	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	2	0	0	12	
4:35 PM	13	0	0	0	0	13	0	0	0	0	18	0	0	5	0	0	0	0	0	0	0	0	0	0	0	49	
4:40 PM		0	0	0	0	12	0	0	0	0	4	0	0	1	0	0	0	0	0	0	0	0	3	0	0	32	
4:45 PM		0	0	0	0	10	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	3	0	0	37	
4:50 PM		0	0	0	0	9	0	0	0	0	6	0	0	1	0	0	0	0	0	0	0	1	3	0	0	29	
4:55 PM	10	0	0	0	0	10	0	0	0	0	14	0	0	3	0	0	0	0	0	0	0	1	3	0	0	41	353
5:00 PM 5:05 PM	8	0	0	0	0	8	0	0	0	0	4	0	0	2	0	0	0	0	0	0	0	0	1	0	0	23 24	336 339
5:10 PM		0	0	0	0	3	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	4	0	0	24 15	318
5:10 PM		0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	1	0	0	15	313
5:20 PM		0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	1	0	0	8	306
5:20 PM		0	0	0	0	15	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	300
5:30 PM		0	0	0	0	0	0	0	0	0	7	0	0	1	0	0	0	0	0	0	0	0	0	0	0	-+5	317
5:35 PM	4	0	0	0	0	4	0	0	0	0	7	0	0	1	0	0	0	0	0	0	0	0	7	ő	0	23	291
5:40 PM	6	0	0	0 0	0	6	0	0	0	0	2	0	0	1	0	0 0	0	0	0	0	0	0	5	Ő	0	20	279
5:45 PM		0 0	Ő	0	0	Ő	0	0	0 0	0	4	0	0	1	0	Ő	0	0	0	0	0	0	4	0	0	9	251
5:50 PM	12	0	0	0	0	12	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	31	253
5:55 PM		0	0	0	0	1	0	0	0	0	3	0	0	1	0	0	0	0	0	0	0	0	2	0	0	8	220
Totals	154	0	0	0	0	154	0	0	0	0	179	0	0	25	0	0	0	0	0	0	2	2	57	0	0		



0.007.001																		
8:10 AM	6	44	2	0	7	68	5	1	3	98	18	0	2	83	16	0	353	40
8:15 AM	15	56	4	0	2	48	6	0	0	90	21	0	7	72	5	1	327	40
8:20 AM	9	46	2	0	6	61	9	0	7	78	16	0	3	76	13	0	326	40
8:25 AM	15	59	8	0	12	46	9	1	9	105	13	0	4	75	11	0	367	40
8:30 AM	15	57	6	0	13	56	12	0	1	90	13	2	4	59	4	0	332	4
8:35 AM	14	48	1	0	13	37	4	0	6	110	13	0	6	92	7	0	351	4
8:40 AM	12	47	4	0	7	44	11	0	2	101	13	1	1	60	7	1	311	40
8:45 AM	6	47	7	0	12	43	11	0	3	113	16	0	3	76	11	0	348	4
8:50 AM	14	68	12	0	18	66	13	0	4	76	6	0	4	76	10	0	367	4
8:55 AM	17	71	14	0	10	44	5	0	7	97	12	1	5	73	11	0	367	4
Peak 15-Min	Northbound			Southbound				Eastbound				Westbound						
		Therese	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Tc	otal
Flowrates	Left	Thru	Night															2.0
Flowrates All Vehicles	Left 148	744	132	0	160	612	116	0	56	1144	136	4	48	900	128	0	43	28
								0	56 8	1144 80	136 20	4	48 0	900 36	128 8	0		528 88
All Vehicles	148	744	132		160	612	116	0				4				0	18	
All Vehicles Heavy Trucks	148	744 24	132		160	612	116	0		80		4		36		0	18 13	88
All Vehicles Heavy Trucks Pedestrians Bicycles Railroad	148 4 0	744 24 28	132		160 0	612 8 0	116 0	0	8	80 44	20	4	0	36 60	8	0	18 13	88 32
All Vehicles Heavy Trucks Pedestrians Bicycles	148 4 0	744 24 28	132		160 0	612 8 0	116 0	0	8	80 44	20	4	0	36 60	8	0	18 13	88 32
All Vehicles Heavy Trucks Pedestrians Bicycles Railroad	148 4 0	744 24 28	132		160 0	612 8 0	116 0	0	8	80 44	20	4	0	36 60	8	0	18 13	88 32

Report generated on 11/25/2014 5:27 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212



Report generated on 11/25/2014 5:29 PM

5:15 PM

5:20 PM

5:25 PM

5:30 PM

5:35 PM

5:40 PM

5:45 PM

5:50 PM

5:55 PM

Peak 15-Min Flowrates

All Vehicles

Heavy Trucks

Pedestrians

Bicycles

Railroad Stopped Buses Comments: Left

Th<u>ru</u>

Right

Northbound

Left

Thru

Southbound

Right

Λ

Left

Thru

Right

Eastbound

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Left

Thru

Westbound

Right

Total



	Comments:
R	Report generated on 11/25/2014 5:27 PM

8:25 AM

8:30 AM

8:35 AM

8:40 AM

8:45 AM

8:50 AM

8:55 AM

Peak 15-Min

Flowrates

All Vehicles

Heavy Trucks

Pedestrians

Bicycles

Railroad Stopped Bus Left

Thru

Northbound

Right

Left

Thru

Southbound

Right

Left

Thru

Eastbound

Right

Left

Thru

Westbound

Right

Total

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212



Stopped Buses Comments: Report generated on 11/25/2014 5:29 PM

Thru

Left

Northbound

Right

Left

T<u>hru</u>

Southbound

Right

Thru

Left

Eastbound

Right

5:40 PM

5:45 PM

5:50 PM

5:55 PM

Peak 15-Min

Flowrates

All Vehicles

Heavy Trucks

Pedestrians

Bicycles

Railroad

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Left

Thru

Total

Westbound

Right


Stopped Buses Comments:

Bicycles

Railroad

Report generated on 11/25/2014 5:27 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212



Report generated on 11/25/2014 5:29 PM

Comments:

LOCATION CITY/STAT					shingto	on Blv	d										#: 13149 nu, Nov 2	
1231 [◆] 5 1 1251 <mark>◆</mark> 1	ען זין 1091 ♦ [091 ♦ [09 1	0.90 ↑ 114 5 ↓ 1 0.90	• 208 • 1131 • 111	• 1450 • 1272				-Min:	8:10	AM	0:00 AN 8:25 AI	ts		1	8.6 15.8 1.5 1.5 1.6 4.5		9.1 9.1 1.8	2.8 1.5
	 9	35	18	_		_	*	J				_		 3 				
► ► 5-Min Count			NA Son Blvd	• •			son Blvd	1			gton Blv	- d				NA + V NA	€ NA Total	Hourly
Period Beginning At	Left	(North Thru	hbound) Right	U	Left	(South Thru	bound) Right	U	Left	(East Thru	bound) Right	U	Left	(West Thru	bound) Right	U		Totals
7:00 AM 7:05 AM 7:10 AM 7:15 AM 7:20 AM 7:25 AM 7:35 AM 7:35 AM 7:40 AM 7:45 AM 7:50 AM 7:55 AM	3 4 2 5 10 4 5 3 2 4 4 6	11 23 26 21 23 27 18 17 36 22 16 33	4 6 9 3 7 5 6 10 6 5 7 13	0 0 0 0 0 0 0 0 0 0 0 0 0	1 6 3 5 2 5 6 5 2 6 4	5 8 6 7 7 4 5 7 7 7 13	0 2 0 1 1 3 2 2 1 2 3 4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 1 5 4 1 2 1 6 4 3 5	46 33 46 51 65 55 63 62 57 98 61 87	3 2 3 8 2 0 8 4 5 8 8 8 8 6	0 0 0 0 0 0 0 0 0 0 0 0 0	6 1 2 8 3 1 2 4 1 4 5 5	85 75 83 116 80 102 101 117 93 109 96 96	13 18 14 17 10 23 21 12 11 13 13 13	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	182 179 199 244 214 231 236 248 226 278 229 285	2751
8:00 AM 8:05 AM 8:10 AM 8:15 AM 8:20 AM	4 7 2 5 7	30 16 35 26 29	12 4 12 14 14	0 0 0 0 0	4 5 3 9 8	6 0 7 4 15	1 4 3 2 3	0 0 0 0 0	3 3 4 6 6	95 84 94 106 105	4 11 6 18 9	0 0 0 0 0	8 11 4 8 12	85 79 104 101 101	15 17 13 25 23	0 0 0 0 0	267 241 287 324 332	2836 2898 2986 3066 3184
8:25 AM 8:30 AM 8:35 AM 8:40 AM 8:45 AM 8:50 AM 8:55 AM	5 5 6 1 7 8 5	32 23 26 24 26 23 25	6 12 14 12 8 8 8	0 0 0 0 0 0	8 4 6 5 1 5 3	11 8 15 16 9 14 9	4 2 3 5 4 5 2	0 0 0 0 0 0	6 3 2 4 6 6 5 3	85 96 97 79 100 82 68	6 8 12 9 14 4		12 10 11 7 4 12 17	80 111 103 74 116 95 82	11 25 13 16 15 13 22	0 0 0 0 0 0	332 257 307 302 257 305 284 248	3184 3210 3281 3335 3366 3393 3448 3411
Peak 15-Min Flowrates All Vehicles Heavy Trucks	Left 56 0	N Thru 360 8	orthbour Right 160 0	nd U 0	Left 80 0	50 Thru 104 4	outhbour Right 32 4	nd U 0	Left 64 12	E Thru 1220 20	Eastboun Right 132 4	d U O	Left 96 4	70000000000000000000000000000000000000	Vestbour Right 244 20	nd U 0	37	72 00
Pedestrians Bicycles Railroad Stopped Buses Comments:	0	8 0	0		0	4 36 0	0		0	20 8 0	0		0	8 1	0		6	0

Report generated on 11/25/2014 5:27 PM

pe of peak											Me	thod fo	or deter	rmining			otal Enteri	-
LOCATIOI CITY/STA					shingt	on Blv	d										#: 13149 ed, Nov 1	
	25 5 85 1144 82 4 34	2 135 0 • • • • • • • • • • • •	• 256 • 871 • 130 ¹	◆1257 ◆1328				-Min:	5:40 uali	PM	00 PM 5:55 Pl COUN	ts		1	 	0.7 0	8.6 ◆ 1.7 →	3.3 1.7
	16	29 1 7	17	_		_	番					_		0 6 0	0 • • • • • • • 1	5700		
÷ →		NA NA	♦ NA	• •		Robert	son Blvc	1		¶ ↑ ↑	The second secon				, , , , , , , , , , , , , , , , ,	NA + V NA	€ NA F Total	Hourly
Period		(North	nbound)			(South	nbound)			(East	bound)			(West	bound)		, otai	Totals
Beginning At 4:00 PM	t Left 3	<u>Thru</u> 14	Right 9	<u>U</u> 0	Left 5	<u>Thru</u> 10	Right 5	<u>U</u> 0	Left 4	<u>Thru</u> 120	Right 6	<u>U</u> 0	Left 2	<u>Thru</u> 70	Right 19	<u>U</u> 0	267	
4:05 PM	4	8	2	0	3	8	4	0	8	84	5	0	5	61	11	0	203	
4:10 PM	1	9 4	4 5	0 0	1	6 10	4 2	0 0	5 9	105	6 5	0 0	7 9	77 57	13 11	0 0	238 211	
4:15 PM 4:20 PM	4	4	5 15	0	4	10	2	0	9	88 114	5 11	0	9	57 66	14	0	211	
4:25 PM	6	14	8	0	6	13	7	0	5	72	1	0	9	58	8	0	207	
4:30 PM	2	9	8	0	9	3	7	0	2	96	10	0	10	70	17	0	243	
4:35 PM 4:40 PM	3	18 16	13 11	0 0	7 10	6 5	2 7	0 0	6 6	122 121	3 6	0 0	5 7	73 64	19 20	0 0	277 277	
4:40 PM 4:45 PM	3	10	9	0	3	э 1	2	0	3	118	6 5	0	6	64 73	20 14	0	247	
4:50 PM	0	9	1	0	7	10	3	0	2	88	11	0	10	75	8	0	224	
4:55 PM	2	16	6	0	15	5	7	0	4	90	5	0	7	52	7	0	216	2869
5:00 PM 5:05 PM	4	13 15	3 8	0 0	47	12 2	6 4	0 0	7	100 101	6 2	0 0	9 16	74 78	24 32	0 0	262 275	2864 2936
5:10 PM	2	19	о 5	0	14	6	6	0	5	97	6	0	11	62	23	0	275	2930
5:15 PM	4	18	15	0	1	8	2	0	9	115	5	0	13	71	16	0	277	3020
5:20 PM	3	24	8	0	7	21	2	0	1	100	10	0	14	71	15	0	276	3037
5:25 PM 5:30 PM	4	21 13	13 6	0 0	4	9 13	3 6	0 0	5	80 81	5 10	0 0	7 13	80 71	16 20	0 0	247 255	3077 3089
5:30 PM 5:35 PM	4	13	12	0	4	5	6 4	0	8	93	3	0	13	69	20 18	0	255	3089
5:40 PM	5	21	13	0	8	19	5	0	6	96	6	0	8	90	19	0	296	3076
5:45 PM	1	19	11	0	2	11	6	0	12	98	11	0	13	72	22	0	278	3107
5:50 PM	3	23	9	0	4	12	4	0	9	105	9	0	11	75	31	0	295	3178
5:55 PM eak 15-Min	1	<u> </u>	13 Iorthbour	0	5	17	4 outhbou	0 nd	9	78	9 Eastbour	0	3	58	20 /estboui	0 nd	247	3209
Flowrates	Left	Thru		U	Left	Thru	Right	na U	Left	Thru		U	Left	Thru	Right	na U	To	tal
	36	252	132	0	56	168	60	0	108	1196	104	0	128	948	288	0	34	76
eavy Trucks		0	4		0	0	0		4	16	0		4	16	20		6	
All Vehicles eavy Trucks Pedestrians Bicycles			4 0		0	0 56 0	0		4	16 32 0	0		4	16 28 3	20 0		12	4 24 3

Report generated on 11/25/2014 5:29 PM

Railroad Stopped Buses Comments:

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212



6.40 AW	19	53	ю	0	Z	30	4	0	3	60	25	0	12	105	12	0	342	4220
8:45 AM	9	49	4	0	14	54	9	0	11	65	13	0	6	60	6	0	300	4167
8:50 AM	31	68	10	0	9	38	6	0	6	78	16	0	9	103	18	0	392	4224
8:55 AM	15	64	10	0	15	67	13	0	5	67	16	0	8	88	9	0	377	4250
Peak 15-Min		N	orthbou	nd		Se	outhbou	nd		E	astboun	d		W	/estbour	d	ĺ	
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Tc	otal
All Vehicles	224	720	104	0	68	492	104	0	52	996	192	0	164	1188	120	0	44	24
Heavy Trucks	8	20	4		0	4	16		0	16	0		4	12	8		9	2
Pedestrians		20				36				12				8			7	6
Bicycles	0	1	0		1	1	0		0	0	0		0	3	0		6	3
Railroad																		
Stopped Buses																		
Comments:																		

Report generated on 11/25/2014 5:27 PM



5:45 PM	17	48	9	0	12	43	3	0	4	87	13	0	16	68	17	0	337	4314
5:50 PM	12	66	9	0	12	63	9	0	15	76	12	0	12	68	7	0	361	4358
5:55 PM	12	46	7	0	14	45	6	0	5	88	18	0	8	70	11	0	330	4353
Peak 15-Min		N	orthbour	nd		So	outhbou	nd		E	astboun	d		W	lestbour	nd		
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	То	otal
All Vehicles	232	612	152	0	224	684	76	0	60	1264	212	0	92	816	164	0	45	88
Heavy Trucks	0	0	0		0	16	12		0	8	0		0	16	0		5	2
Pedestrians		8				44				28				4			8	4
Bicycles	0	0	0		0	0	0		0	1	0		0	0	0		-	1
Railroad																		
Stopped Buses																		
Comments:																		

Report generated on 11/25/2014 5:29 PM



Report generated on 11/25/2014 5:27 PM

Stopped Buses Comments:



Comments:

Report generated on 11/25/2014 5:29 PM



Report generated on 11/25/2014 5:27 F	M

8:25 AM

8:30 AM

8:35 AM

8:40 AM

8:45 AM

8:50 AM

8:55 AM

Peak 15-Min

Flowrates

All Vehicles

Heavy Trucks

Pedestrians

Bicycles

Railroad Stopped Buses Comments: Λ

Left

Thru

Northbound

Right

Left

Thru

Southbound

Right

Left

Thru

Total

Left

Thru

Westbound

Right

Eastbound

Right



Left

Southbound

Right

Thru

Eastbound

Right

Thru

Left

Right

Northbound

Left

Thru

5:55 PM

Peak 15-Min Flowrates

All Vehicles

Heavy Trucks

Pedestrians

Bicycles

Railroad Stopped Buses Comments: Left

Thru

Westbound

Right

Total



Comments: National/I-10 EB Ramps

Thru

Left

Northbound

n

Right

n

Left

Thru

Southbound

Right

Left

<u>Thru</u>

Eastbound

Right

Left

Thru

Westbound

Right

Total

8:40 AM

8:45 AM

8:50 AM

8:55 AM

Peak 15-Min

Flowrates

All Vehicles

Heavy Trucks

Pedestrians

Bicycles

Railroad stopped Bus



Thru

Left

Southbound

Right

Left

<u>Thru</u>

Eastbound

Right

Left

<u>Thru</u>

Comments: National/I-10 EB Ramps Report generated on 11/25/2014 5:29 PM

Left

Thru

Northbound

Right

5:35 PM

5:40 PM

5:45 PM

5:50 PM

5:55 PM

Peak 15-Min

Flowrates

All Vehicles

Heavy Trucks

Pedestrians

Bicycles

Railroad stopped Bus

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Total

Westbound

Right



8:00 AM	21	0	6	0	0	0	0	0	0	52	29	0	2	40	0	0	150	1979
8:05 AM	19	0	9	0	0	0	0	0	0	62	29	0	1	90	0	0	210	2028
8:10 AM	16	0	14	0	0	0	0	0	0	54	25	0	4	38	0	0	151	2035
8:15 AM	15	0	10	0	0	0	0	0	0	77	20	0	6	67	0	0	195	2106
8:20 AM	19	0	12	0	0	0	0	0	0	49	28	0	5	69	0	0	182	2155
8:25 AM	9	0	13	0	0	0	0	0	0	55	19	0	3	81	0	0	180	2144
8:30 AM	10	0	4	0	0	0	0	0	0	48	18	0	1	67	0	0	148	2143
8:35 AM	4	0	2	0	0	0	0	0	0	62	13	0	5	94	0	0	180	2128
8:40 AM	4	0	1	0	0	0	0	0	0	69	7	0	5	76	0	0	162	2142
8:45 AM	4	0	3	0	0	0	0	0	0	69	4	0	0	57	0	0	137	2107
8:50 AM	0	0	2	0	0	0	0	0	0	56	7	0	6	89	0	0	160	2078
						~	0	~		~~	~	0	· ·	70	•	~	100	2018
8:55 AM	2	0	0	0	0	0	0	0	0	80	6	0	2	73	0	0	163	2010
8:55 AM Peak 15-Min	2	0 N	0 orthbou	0 nd	0	0	0 outhbou	nd	0		6 astbour		2		0 /estbour		163	2010
	2 Left	0 No Thru	0 orthbou Right	0 nd U	0 Left	0 So Thru		nd U	0 Left				2 Left					otal
Peak 15-Min						-	outhbou			E	astboun	d		W	/estbour	nd		otal
Peak 15-Min Flowrates	Left	Thru	Right	U	Left	Thru	outhbou Right	U	Left	E Thru	astboun Right	id U	Left	W Thru	/estbour Right	nd U	Тс	etal 28
Peak 15-Min Flowrates All Vehicles	Left 172	Thru 0	Right 140	U	Left 0	Thru 0	outhbou Right 0	U	Left 0	E Thru 724	astboun Right 268	id U	Left 56	W Thru 868	/estbour Right 0	nd U	Tc 22	o <mark>tal</mark> 28 4
Peak 15-Min Flowrates All Vehicles Heavy Trucks	Left 172	<u>Thru</u> 0 0	Right 140	U	Left 0	Thru 0	outhbou Right 0	U	Left 0	E Thru 724	astboun Right 268	id U	Left 56	W Thru 868 16	/estbour Right 0	nd U	Tc 22 2 4	o <mark>tal</mark> 28 4
Peak 15-Min Flowrates All Vehicles Heavy Trucks Pedestrians	Left 172 0	Thru 0 0 16	Right 140 0	U	Left 0 0	Thru 0	outhbou Right 0 0	U	Left 0 0	E Thru 724	astboun Right 268 0	id U	Left 56 0	W Thru 868 16 24	Vestbour Right 0 0	nd U	Tc 22 2 4	tal 28 4 0
Peak 15-Min Flowrates All Vehicles Heavy Trucks Pedestrians Bicycles	Left 172 0	Thru 0 0 16	Right 140 0	U	Left 0 0	Thru 0	outhbou Right 0 0	U	Left 0 0	E Thru 724	astboun Right 268 0	id U	Left 56 0	W Thru 868 16 24	Vestbour Right 0 0	nd U	Tc 22 2 4	tal 28 4 0

Report generated on 11/25/2014 5:27 PM



5:00 PM	6	0	1	0	0	0	0	0	0	86	7	0	0	95	0	0	195	2084
5:05 PM	13	0	4	0	0	0	0	0	0	77	6	0	0	83	0	0	183	2108
5:10 PM	6	0	2	0	0	0	0	0	0	79	7	0	0	72	0	0	166	2126
5:15 PM	5	0	1	0	0	0	0	0	0	69	1	0	0	68	0	0	144	2120
5:20 PM	4	0	2	0	0	0	0	0	0	92	5	0	0	73	0	0	176	2121
5:25 PM	12	0	0	0	0	0	0	0	0	83	8	0	1	65	0	0	169	2138
5:30 PM	3	0	1	0	0	0	0	0	0	108	5	0	2	92	0	0	211	2174
5:35 PM	5	0	1	0	0	0	0	0	0	78	9	0	1	82	0	0	176	2160
5:40 PM	5	0	0	0	0	0	0	0	0	77	11	0	0	79	0	0	172	2120
5:45 PM	2	0	1	0	0	0	0	0	0	67	10	0	2	74	0	0	156	2104
5:50 PM	5	0	0	0	0	0	0	0	0	89	3	0	3	85	0	0	185	2116
						-	_	•		= 0	~	~		0 4	•	~	100	0070
5:55 PM	9	0	2	0	0	0	0	0	0	58	6	0	0	64	0	0	139	2072
5:55 PM Peak 15-Min	9	<u>0</u>	2 orthbou	<u> </u>	0	<u>0</u>	0 outhbou	nd	0		6 astboun	<u> </u>	0		0 /estbour	<u> </u>	139	2072
	9 Left	0 No Thru	2 orthbou Right	<u> </u>	0 Left	0 So Thru		nd U	Left			<u> </u>	0 Left			<u> </u>		otal
Peak 15-Min				nd	0 Left 0	-				E	astboun	d		W	estbour	nd	Тс	
Peak 15-Min Flowrates	Left	Thru	Right	nd U		Thru	Right	U	Left	E Thru	astboun Right	id U	Left	W Thru	estbour Right	nd U	Тс	otal 36
Peak 15-Min Flowrates All Vehicles	Left 52	Thru 0	Right 8	nd U	0	Thru 0	Right 0	U	Left	E Thru 1052	astboun Right 100	id U	Left 12	W Thru 1012	estbour Right 0	nd U		otal 36 6
Peak 15-Min Flowrates All Vehicles Heavy Trucks	Left 52	<u>Thru</u> 0 0	Right 8	nd U	0	Thru 0	Right 0	U	Left	E Thru 1052 28	astboun Right 100	id U	Left 12	W Thru 1012 8	estbour Right 0	nd U	T c 22 3	otal 36 6
Peak 15-Min Flowrates All Vehicles Heavy Trucks Pedestrians	Left 52 0	Thru 0 0 12	Right 8 0	nd U	0	Thru 0	Right 0 0	U	Left 0 0	E Thru 1052 28 0	astboun Right 100 0	id U	Left 12 0	W Thru 1012 8 8	Vestbour Right 0 0	nd U	T c 22 3	otal 36 6
Peak 15-Min Flowrates All Vehicles Heavy Trucks Pedestrians Bicycles	Left 52 0	Thru 0 0 12	Right 8 0	nd U	0	Thru 0	Right 0 0	U	Left 0 0	E Thru 1052 28 0	astboun Right 100 0	id U	Left 12 0	W Thru 1012 8 8	Vestbour Right 0 0	nd U	T c 22 3	otal 36 6

Report generated on 11/25/2014 5:29 PM

ITM Peak Hour Summary



La Cienega Blvd and Venice Blvd , Culver City







Total Volume Per Leg



ITM Peak Hour Summary Prepared by:



Fairfax Ave and Washington Blvd , Culver City







Total Volume Per Leg



ITM Peak Hour Summary



Jefferson Blvd and National Blvd , Culver City







Total Volume Per Leg



ITM Peak Hour Summary Prepared by:



National Data & Surveying Services

Robertson Blvd and I-10 WB Off Ramp , Culver City







Total Volume Per Leg



LOCATION: SPECIFIC LC	OCATION:	500 ft from								QC JOB #: 13149823 DIRECTION: NB
CITY/STATE:										Nov 19 2014 - Nov 21 20
Start Time	Mon	Tue	Wed 19-Nov-14	Thu 20-Nov-14	Fri 21-Nov-14	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profil
12:00 AM				0	0	0			0	
1:00 AM				1	1	1			1	
2:00 AM				2	1	2			2	
3:00 AM				2	1	2			2	
4:00 AM				1	1	1			1	
5:00 AM				1	3	2			2	
6:00 AM				9	11	10			10	
7:00 AM				28	17	23			23	
8:00 AM				39	32	36			36	
9:00 AM				28	25	27			27	
10:00 AM				15		15			15	
11:00 AM				22		22			22	
12:00 PM				19		19			19	
1:00 PM				27		27			27	
2:00 PM				20		20	TV		20	
3:00 PM				37		37		~	37	
4:00 PM				54		54			54	
5:00 PM			61	71		66			66	
6:00 PM			85	73		79			79	
7:00 PM			34	64		49			49	
8:00 PM			11	16		14			14	
9:00 PM			7	15		11			11	
10:00 PM			7	2		5			5	
11:00 PM			0	5		3			3	
Day Total			205	551	92	525			525	
6 Weekday										
Average			39.0%	105.0%	17.5%					
% Week										
Average			39.0%	105.0%	17.5%	100.0%				
AM Peak			00.070	8:00 AM	8:00 AM	8:00 AM			8:00 AM	
Volume				39	32	36			36	
PM Peak			6:00 PM	6:00 PM		6:00 PM			6:00 PM	
Volume			85	73		79			79	
Comments:										

Report generated on 11/25/2014 5:40 PM

LOCATION: SPECIFIC LC	OCATION:	500 ft from								QC JOB #: 13149823 DIRECTION: NB/SB
CITY/STATE:						1				Nov 19 2014 - Nov 21 201
Start Time	Mon	Tue	Wed 19-Nov-14	Thu 20-Nov-14	Fri 21-Nov-14	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				2	5	4			4	
1:00 AM				1	2	2			2	
2:00 AM				2	2	2			2	
3:00 AM				3	1	2			2	
4:00 AM				3	3	3			3	
5:00 AM				4	6	5			5	
6:00 AM				18	22	20			20	
7:00 AM				111	73	92			92	
8:00 AM				118	99	109			109	
9:00 AM				83	70	77			77	
10:00 AM				35		35			35	
11:00 AM				40	~ ~ ~	40			40	
12:00 PM				52		52			52	
1:00 PM				54	\ .	54		0	54	
2:00 PM				56		56			56	
3:00 PM				66		66		~	66	
4:00 PM				86		86			86	
5:00 PM			114	155		135			135	
6:00 PM			159	150		155			155	
7:00 PM			76	95		86			86	
8:00 PM			22	27		25			25	
9:00 PM			13	28		21			21	
10:00 PM			14	11		13			13	
11:00 PM			4	7		6			6	
Day Total			402	1207	283	1146			1146	
6 Weekday										
Average			35.1%	105.3%	24.7%					
% Week										
Average			35.1%	105.3%	24.7%	100.0%				
AM Peak			00.170	8:00 AM	8:00 AM	8:00 AM			8:00 AM	
Volume				118	99	109			109	
PM Peak			6:00 PM	5:00 PM		6:00 PM			6:00 PM	
Volume			159	155		155			155	
Comments:										

Report generated on 11/25/2014 5:40 PM

CITY/STATE: Culver C Mon Start Time 12:00 AM 12:00 AM 12:00 AM 2:00 AM 3:00 AM 4:00 AM 5:00 AM 6:00 AM 7:00 AM 8:00 AM 9:00 AM 10:00 AM 11:00 AM 12:00 PM 3:00 PM 4:00 PM 5:00 PM 6:00 PM 7:00 PM 8:00 PM 9:00 PM 10:00 PM 10:00 PM	City, CA Tue		Thu 20-Nov-14 2 0 0 1 2 3 9 83 79 55 20 18 33 27 36 29 32	Fri 21-Nov-14 5 1 0 2 3 11 56 67 45	4 1 1 2 3 10 70 73 50 20 18 33 27 36 29	Sat Su	n Average W Hourly Tr 4 1 1 2 3 10 70 70 73 50 20 18 33 27 36 29	Veek	Nov 19 2014 - Nov 21 20 Average Week Profi
Start Time 12:00 AM 1:00 AM 2:00 AM 3:00 AM 3:00 AM 4:00 AM 5:00 AM 6:00 AM 7:00 AM 8:00 AM 9:00 AM 10:00 AM 11:00 AM 12:00 PM 3:00 PM 4:00 PM 5:00 PM 5:00 PM 6:00 PM 7:00 PM 8:00 PM 9:00 PM 1:00 PM 2:00 PM 3:00 PM 9:00 PM 10:00 PM	Tue	19-Nov-14	20-Nov-14 2 0 0 1 2 3 9 8 3 9 8 3 79 55 20 18 33 27 36 29	21-Nov-14 5 1 0 2 3 11 56 67	Hourly Traffic 4 1 1 2 3 10 70 73 50 20 18 33 27 36 29	Sat Su	Hourly Tra 4 1 1 2 3 10 70 70 73 50 20 18 33 27 36		Average Week Profi
12:00 AM 1:00 AM 2:00 AM 3:00 AM 3:00 AM 4:00 AM 5:00 AM 6:00 AM 7:00 AM 9:00 AM 10:00 AM 11:00 AM 12:00 PM 1:00 PM 3:00 PM 4:00 PM 5:00 PM 6:00 PM 8:00 PM 9:00 PM 10:00 PM 10:00 PM			0 0 1 2 3 9 83 79 55 20 18 33 27 36 29	1 0 2 3 11 56 67	1 1 2 3 10 70 73 50 20 18 33 27 36 29	ty C	1 1 2 3 10 70 73 50 20 18 33 27 36	ts	
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3:00 AM 4:00 AM 5:00 AM 6:00 AM 7:00 AM 8:00 AM 9:00 AM 10:00 AM 11:00 AM 11:00 AM 12:00 PM 2:00 PM 3:00 PM 4:00 PM 5:00 PM 6:00 PM 8:00 PM 9:00 PM 10:00 PM			1 2 3 9 83 79 55 20 18 33 27 36 29	0 2 3 11 56 67	3 10 70 73 50 20 18 33 27 36 29	ty C	3 10 70 73 50 20 18 33 27 36	ts	
3:00 AM 4:00 AM 5:00 AM 6:00 AM 7:00 AM 8:00 AM 9:00 AM 10:00 AM 11:00 AM 11:00 AM 12:00 PM 2:00 PM 3:00 PM 4:00 PM 5:00 PM 6:00 PM 8:00 PM 9:00 PM 10:00 PM			3 9 83 79 55 20 18 33 27 36 29	2 3 11 56 67	3 10 70 73 50 20 18 33 27 36 29	ty C	3 10 70 73 50 20 18 33 27 36	ts	
4:00 AM 5:00 AM 6:00 AM 7:00 AM 8:00 AM 9:00 AM 10:00 AM 11:00 AM 12:00 PM 1:00 PM 2:00 PM 3:00 PM 4:00 PM 5:00 PM 6:00 PM 8:00 PM 9:00 PM			3 9 83 79 55 20 18 33 27 36 29	2 3 11 56 67	3 10 70 73 50 20 18 33 27 36 29	ty C	3 10 70 73 50 20 18 33 27 36	ts	
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7:00 AM 8:00 AM 9:00 AM 10:00 AM 11:00 AM 12:00 PM 1:00 PM 2:00 PM 3:00 PM 4:00 PM 5:00 PM 6:00 PM 8:00 PM 9:00 PM 10:00 PM			83 79 55 20 18 33 27 36 29	56 67	70 73 50 20 18 33 27 36 29	ty C	70 73 50 20 18 33 27 36	ts	
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9:00 AM 10:00 AM 11:00 AM 12:00 PM 1:00 PM 2:00 PM 3:00 PM 4:00 PM 5:00 PM 6:00 PM 8:00 PM 9:00 PM 10:00 PM			55 20 18 33 27 36 29		50 20 18 33 27 36 29	ty C	50 20 18 33 27 36	ts	
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4:00 PM 5:00 PM 6:00 PM 7:00 PM 8:00 PM 9:00 PM 10:00 PM					29		20	~~	
5:00 PM 6:00 PM 7:00 PM 8:00 PM 9:00 PM 10:00 PM							29		
6:00 PM 7:00 PM 8:00 PM 9:00 PM 10:00 PM					32		32	in and	
7:00 PM 8:00 PM 9:00 PM 10:00 PM		53	84		69		69	1014	
8:00 PM 9:00 PM 10:00 PM		74	77		76		76	1	
9:00 PM 10:00 PM		42	31		37		37	1	
10:00 PM		11	11		11		11	1	
		6	13		10		10	1	
44-00 DM		7	9		8		8	1	
11:00 PM		4	2		3		3	l	
Day Total		197	656	191	624		624		
6 Weekday									
Average		31.6%	105.1%	30.6%					
% Week									
Average		31.6%	105.1%	30.6%	100.0%				
AM Peak			7:00 AM	8:00 AM	8:00 AM		8:00 AM	1	
Volume			83	67	73		73		
PM Peak		6:00 PM	5:00 PM		6:00 PM		6:00 PM	1	
Volume		74	84		76		76		

Report generated on 11/25/2014 5:40 PM

CLIENT:	Kimley-Horn & Associates, Inc. / Lowe's
PROJECT:	TOD - Washington & National
DATE:	Wednesday, February 18, 2015
PERIOD:	6:00 AM to 9:00 AM
LOCATION:	Culver City Station - Park & Ride Lot
	(Washington Blvd. & National Blvd., Culver City)

<u>(15-min)</u>		Nation	al Blvd		١	N Washi	ngton Bl	vd	Sub-	Fotals	TOTAL
Time Period	IN	N/A	OUT	N/A	IN	N/A	OUT	N/A	IN	OUT	TOTAL
6:00 - 6:15 AM	11		2		8		3		19	5	24
6:15 - 6:30 AM	17		2		10		8		27	10	37
6:30 - 6:45 AM	21		0		16		8		37	8	45
6:45 - 7:00 AM	20		0		29		7		49	7	56
7:00 - 7:15 AM	50		0		21		18		71	18	89
7:15 - 7:30 AM	37		0		21		12		58	12	70
7:30 - 7:45 AM	51		2		25		13		76	15	91
7:45 - 8:00 AM	62		0		27		10		89	10	99
8:00 - 8:15 AM	75		2		27		20		102	22	124
8:15 - 8:30 AM	53		3		16		15		69	18	87
8:30 - 8:45 AM	33		2		20		14		53	16	69
8:45 - 9:00 AM	19		5		11		19		30	24	54

<u>(1-hour)</u>		Nation	nal Blvd		V	V Washi	ington Bl	vd	Sub-	Fotals	TOTAL
Time Period	R-IN	L-IN	R-OUT	L-OUT	R-IN	L-IN	R-OUT	L-OUT	IN	OUT	TOTAL
9:00 - 7:00 AM	69	0	4	0	63	0	26	0	132	30	162
9:15 - 7:15 AM	108	0	2	0	76	0	41	0	184	43	227
9:30 - 7:30 AM	128	0	0	0	87	0	45	0	215	45	260
9:45 - 7:45 AM	158	0	2	0	96	0	50	0	254	52	306
7:00 - 8:00 AM	200	0	2	0	94	0	53	0	294	55	349
7:15 - 8:15 AM	225	0	4	0	100	0	55	0	325	59	384
7:30 - 8:30 AM	241	0	7	0	95	0	58	0	336	65	401
7:45 - 8:45 AM	223	0	7	0	90	0	59	0	313	66	379
8:00 - 9:00 AM	180	0	12	0	74	0	68	0	254	80	334

NOTES:

(1) Venice Blvd Entrance/Exit Closed.

(2) National Driveway is Enter Only. (Vehicles only premitted to exit via Washington)

- (3) Lot was full by 8:45 AM
- (4) 3 Motorcycles / 1 Tow truck / 1 Shuttle was recorded
- (5) Approximately 90-100 drop-offs occurred
- (6) Vehicles also utilized on-street parking on National Blvd.
- (7) Approximately (90 100) Drop-Off/Pick-Ups occurred within the parking lot.
- (8) 2 Maintence vehicles entered the lot.
- (9) 3 occasions occurred where two vehicles entered the lot, 1 driver parked, entered the other vehicle, and left the
- (10) Only 1 to 2 Handicapped spaces were used.

CLIENT:	Kimley-Horn & Associates, Inc. / Lowe's
PROJECT:	TOD - Washington & National
DATE:	Wednesday, February 18, 2015 AND Wednesday, March, 4, 2015
PERIOD:	3:00 PM to 6:00 PM
LOCATION:	Culver City Station - Park & Ride Lot
	(Washington Blvd. & National Blvd., Culver City)

		(Traorini	igton bh				ion only,				
<u>(15-min)</u>		Natior	nal Blvd		W	Washir	ngton Bl	vd	Sub-	Totals	TOTAL
Time Period	R-IN	L-IN	R-OUT	L-OUT	R-IN	L-IN	R-OUT	L-OUT	IN	OUT	TOTAL
3:00 - 3:15 PM	9	0	3	0	0	2	8	1	11	12	23
3:15 - 3:30 PM	1	0	1	1	0	2	9	3	3	14	17
3:30 - 3:45 PM	9	0	6	0	4	2	18	5	15	29	44
3:45 - 4:00 PM	1	0	3	0	5	2	15	3	8	21	29
4:00 - 4:15 PM	12	0	2	0	1	8	19	3	21	24	45
4:15 - 4:30 PM	10	1	3	0	3	3	16	1	17	20	37
4:30 - 4:45 PM	11	0	0	1	5	3	21	5	19	27	46
4:45 - 5:00 PM	5	0	4	0	3	3	38	9	11	51	62
5:00 - 5:15 PM	19	0	2	0	2	6	29	4	27	35	62
5:15 - 5:30 PM	19	2	3	0	5	8	28	4	34	35	69
5:30 - 5:45 PM	11	1	0	1	4	4	48	11	20	60	80
*5:45 - 6:00 PM	10	1	4	0	6	6	37	4	23	45	68
6:00 - 6:15 PM	15	1	3	3	8	15	74	3	39	83	122
6:15 - 6:30 PM	19	0	3	2	8	15	74	4	42	83	125
6:30 - 6:45 PM	17	1	7	2	4	14	39	7	36	55	91
6:45 - 7:00 PM	15	2	4	2	2	2	35	8	21	49	70

<u>(1-hour)</u>		Nation	al Blvd		W	' Washir	ngton Bl	vd	Sub-1	otals	TOTAL
Time Period	R-IN	L-IN	R-OUT	L-OUT	R-IN	L-IN	R-OUT	L-OUT	IN	OUT	TUTAL
3:00 - 4:00 PM	20	0	13	1	9	8	50	12	37	76	113
3:15 - 4:15 PM	23	0	12	1	10	14	61	14	47	88	135
3:30 - 4:30 PM	32	1	14	0	13	15	68	12	61	94	155
3:45 - 4:45 PM	34	1	8	1	14	16	71	12	65	92	157
4:00 - 5:00 PM	38	1	9	1	12	17	94	18	68	122	190
4:15 - 5:15 PM	45	1	9	1	13	15	104	19	74	133	207
4:30 - 5:30 PM	54	2	9	1	15	20	116	22	91	148	239
4:45 - 5:45 PM	54	3	9	1	14	21	143	28	92	181	273
5:00 - 6:00 PM	59	4	9	1	17	24	142	23	104	175	279
5:15 - 6:15 PM	55	5	10	4	23	33	187	22	116	223	339
5:30 - 6:30 PM	55	3	10	6	26	40	233	22	124	271	395
5:45 - 6:45 PM	61	3	17	7	26	50	224	18	140	266	406
6:00 - 7:00 PM	66	4	17	9	22	46	222	22	138	270	408

NOTES: (1) Venice Blvd Entrance/Exit Closed.

- (2) National Driveway is Enter Only. (Vehicles only premitted to exit via Washington)
- (3) Scheduled Garbage Truck entered lot (between 4-5 pm)
- (4) Tow-Truck entered to service a parked vehicle (around 5 pm)
- (5) 2 Police Vehicles entered to patrol lot (around 5pm)
- (6) *Interval is an average of two counts rounded up to whole digits
- (7) 5:45-7:00PM uses count data from 3/4/15
- (8) (1st Run) Train arrived prior to 6:00pm on 2/18/15
- (9) (2nd Run) Train arrived right after 6:00pm on 3/4/15





APPENDIX C

CRITICAL MOVEMENT ANALYSIS (CMA) WORKSHEETS

-]		3				3				
DOT Case Number:			2	ct Trip	Adjace	ent to Pr	roject	No	t Adjace	nt
Year of counts:	2014		Gener	ration	In	Out	Total	In	Out	Total
Project buildout:	2014		Trip Gen	AM Peak	192	98	290	173	83	256
Ambient growth:	0.0%	per year		PM Peak	149	193	342	127	174	301
	Lowe\Docum	/\99038001 Washington & National ents\Traffic\Analysis\CMACalc Calc_Final_Ex+Proj.xls								

Project: Washington Blvd - National Blvd Traffic and Parking Services

Level of Service and Volume to Capacity Ratio Summary

										a	
		Peak	Existing	, ,	Existing wi		-	t Impact		fter mitigati	
No.	Intersection	Hour	v/c	LOS	v/c	LOS	Δ v/c	significant?	v/c	∆ v/c	mitigated?
1	Culver Boulevard &	AM	0.548	А	0.562	А	0.014	NO			N/A
	Venice Boulevard	PM	0.491	А	0.503	А	0.012	NO			N/A
2	Robertson Blvd/Exposition &	AM	1.041	F	1.048	F	0.007	NO			N/A
	Venice Boulevard	PM	0.839	D	0.853	D	0.014	NO			N/A
3	National Boulevard &	AM	0.604	В	0.637	В	0.033	NO			N/A
	Venice Boulevard	PM	0.647	В	0.676	В	0.029	NO			N/A
4	Helms Avenue &	AM	0.265	А	0.268	А	0.003	NO			N/A
	Venice Boulevard	PM	0.271	А	0.278	А	0.007	NO			N/A
5	Cattaraugus Avenue &	AM	0.713	С	0.746	С	0.003	NO			N/A
	Venice Boulevard	PM	0.607	В	0.647	В	0.010	NO			N/A
6	Robertson Blvd/Higuera &	AM	0.690	В	0.693	В	0.003	NO			N/A
	Washington Boulevard	PM	0.660	В	0.662	В	0.002	NO			N/A
7	National Boulevard &	AM	0.680	В	0.690	В	0.010	NO			N/A
	Washington Boulevard	PM	0.788	С	0.800	С	0.012	NO			N/A
8	Helms Avenue &	AM	0.435	А	0.444	А	0.009	NO			N/A
	Washington Boulevard	PM	0.469	А	0.478	А	0.009	NO			N/A
9	Robertson Boulevard &	AM	0.847	D	0.867	D	0.020	YES	0.790	-0.057	YES
	National Boulevard	PM	0.753	С	0.771	С	0.018	NO	0.771	0.018	N/A
10	National Boulevard &	AM	0.219	А	0.229	А	0.010	NO			N/A
	I-10 EB Ramp	PM	0.353	А	0.359	А	0.006	NO			N/A
11	Wesley Street &	AM	0.343	А	0.349	А	0.006	NO			N/A
	National Boulevard	PM	0.317	А	0.323	А	0.006	NO			N/A
12	La Cienega Boulevard &	AM	0.787	С	0.797	С	0.010	NO			N/A
	Venice Boulevard	PM	0.797	С	0.802	D	0.005	NO			N/A
13	Fairfax Blvd &	AM	0.692	В	0.701	С	0.009	NO			N/A
	Washington Blvd	PM	0.658	В	0.662	В	0.004	NO			N/A
14	Jefferson Blvd &	AM	0.846	D	0.854	D	0.008	NO			N/A
	National Blvd	PM	0.655	В	0.664	В	0.009	NO			N/A
15	Robertson Blvd &	AM	0.593	А	0.601	В	0.008	NO			N/A
	I-10 WB Offramp	PM	0.810	D	0.818	D	0.008	NO			N/A

AMM Peak B: Or Am Volume Lanes <						-				-									
Curver Capacity: 1375 Tron: 2014 Capacity: 1375 Tron: 2014 Capacity: 1375 Tron: AM T73 83 256 Capacity: 1375 Signal System: 3 Signal S	Intersec	tion No. 1	2014,	EXIST	ING	2014	, PROJEC	TED CUMULAT	I VE BASE			, WITH PF	ROJECT		2014, WI	TH TRAFF	IC MITI	GATION	
East-West Street: Spinel System 3 (min 2) (min 2) <th colspan<="" td=""><td>North/South Str</td><td>reet:</td><td>Critical F</td><td>Phases:</td><td>4</td><td>Ambient C</td><td><u>Growth</u></td><td>Critical Phas</td><td>ses: 4</td><td></td><td>jacent</td><td></td><td></td><td><u>Total</u></td><td></td><td>Critical</td><td>Phases:</td><td>4</td></th>	<td>North/South Str</td> <td>reet:</td> <td>Critical F</td> <td>Phases:</td> <td>4</td> <td>Ambient C</td> <td><u>Growth</u></td> <td>Critical Phas</td> <td>ses: 4</td> <td></td> <td>jacent</td> <td></td> <td></td> <td><u>Total</u></td> <td></td> <td>Critical</td> <td>Phases:</td> <td>4</td>	North/South Str	reet:	Critical F	Phases:	4	Ambient C	<u>Growth</u>	Critical Phas	ses: 4		jacent			<u>Total</u>		Critical	Phases:	4
Ventoe Boole Ward vic reduction: 10% 0 <td>Culver Bou</td> <td>levard</td> <td>Ca</td> <td>apacity:</td> <td>1375</td> <td>from:</td> <td>2014</td> <td>Capac</td> <td>ity: 1375</td> <td>Trip</td> <td>AM</td> <td>173</td> <td></td> <td></td> <td></td> <td></td> <td>apacity:</td> <td>1375</td>	Culver Bou	levard	Ca	apacity:	1375	from:	2014	Capac	ity: 1375	Trip	AM	173					apacity:	1375	
Analysis Date: 10/29/2015 Corposed Phasing: 1 Andressing: 1 Corposed Phasing: 1 Corposed	East/West Stree	et:	Signal S	System:	3	to:	2014	Signal Syste	em: 3	Gen 1	PM	127	174	301	🗖 Use Dist	21 Signal	System:	3	
AM Peak: 8:00 AM Counts were takenet	Venice Bou	levard	v/c red	luction:	10%	at:	1.0%	v/c reducti	on: 10%	Trip	AM	0		0		v/c re	duction:	10%	
AM Peak: B: 00 AM Volume Lanes	Analysis Date:	10/29/2015		hasing:	1				-			-	0				hasing:	1	
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Z				1	· · · ·				· ·				1	· · · ·			1	64	
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→ Shared North O 0 <		,		0									0				Ó	0	
Critical Volumes: North-South: 374 North-South: 374 North-South: 380 North-South: 380 East-West: 517 East-West: 517 East-West: 530 East-West: 530 Volume/capacity (v/c) ratio: 0.648 0.648 0.662 0. v/c less ATSAC adjustment: 0.548 0.548 0.562 0. Level of Service (LOS): A A A A Filename: KLDT_LDEV99038001 Washington & National LowelDocuments/Traffic/Analysis/CMACalc_Final_Ex+Ptg Change in v/c due to project: 0.014 Av/c after mitigation: 0.0	$\stackrel{\text{Shared}}{\rightarrow}$		138	Ő	· · · · ·	0		138	-		0	138			0	138	0	Ő	
East-West: 517 East-West: 517 East-West: 530 East-West: 530 Volume/capacity (v/c) ratio: 0.648 0.648 0.662 0. v/c less ATSAC adjustment: 0.548 0.548 0.562 0. Level of Service (LOS): A A A A Filename: KLDT_LDEV99038001 Washington & National LowelDocuments/Traffic/Analysis/CMACalc_Final_Ex+Prg Change in v/c due to project: 0.014 Av/c after mitigation: 0.0		ritical Volumes:	North-9	South:	-			North-Sou				North	South:	380		North	South	380	
Total: 891 Total: 891 Total: 910 0.648		nucai volumes.																530	
Volume/capacity (v/c) ratio: 0.648 0.648 0.662 0. v/c less ATSAC adjustment: 0.548 0.548 0.562 0. Level of Service (LOS): A A A A Filename: KALDT_LDE VI99038001 Washington & National LowelDocuments\TrafficAnalysis\CMACalc_Final_Ex+Pro Change in v/c due to project: 0.014 Av/c after mitigation: 0.0																		910	
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	Developed 200	05-2007 by Ken Aitchis	son							Sig	nificantly	impacted?		NO	Fully	mitigated?		N/A	

					_									-				
Intersection No. 1		2014,	EXISTI	NG	2014	PROJEC	TED CUMU	LATIVE	BASE			, WITH PF	ROJECT		2014, WI	TH TRAFF		GATION
North/South Street:	С	Critical P	hases:	4	Ambient C	<u>Frowth</u>	Critical	Phases:	4		jacent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	4
Culver Boulevard		Ca	pacity: [•]	1375	from:	2014	Ca	apacity:	1375	Trip	AM	173	83	256		С	apacity:	1375
East/West Street:	S	Signal Sy	ystem:	3	to:	2014	Signal S	System:	3	Gen 1	PM	127	174	301	Use Dist	21 Signal	System:	3
Venice Boulevard		v/c redu	uction:	10%	at:	1.0%	v/c red	duction:	10%	Trip	AM	0	0	0		v/c ree	duction:	10%
Analysis Date: 10/29/20	15 Opp	bosed Ph	nasing:	1			Opposed P	hasing:	1	Gen 2	PM	0	0	0		Opposed F	hasing:	1
PM Peak: 5:00 PM		ounts		Lane	+ Amb.	+ Area	= Total		Lane		Project	Total		Lane	2	Total		Lane
5 Loft	Vol	lume	Lanes	Volume 75	Growth	Projects	Volume	Lanes	Volume 75	0%	Volume	Volume	Lanes	Volume 75	Volume	Volume	Lanes	Volume 75
\downarrow \downarrow Lt-Th <u>N/B RTOR:</u>		75	0	,3	0		75	0	/ 3	0%	0	75	0	/ 3	0	75	0	, 3
C Right Let N/B RTOR: N/B RTOR: N/B RTOR: N/B RTOR: Existing: 75% Projected: 75 Mitigated: 75			1	39				1	39	0%			1	39			1	39
Th-Rt Projected: 75		39	0	0	0		39	0	0	0%	0	39	0	03	0	39		
C Right Mitigated: 75	2/2		2	270				2	270	10%			2	270			2	270
		740	0		0		740	0	0	0%	13	753	0	0	0	753		0
L. Loft			1	92				1	92	0%			1	92			1	92
Lt-Th S/B RTOR:		167	0	0	0		167	0	0	0%	0	167	0	0	0	167	0	0
$\begin{array}{c} \text{Projected: 50\%}\\ \text{Projected: 50\%}\\ \text{Projected: 50\%}\\ \text{Projected: 50\%}\\ \text{Projected: 50\%}\\ \text{Mitigated: 50\%}\\ \text{Projected: 50\%}\\ Proj$,		Ő	0				Ő	0	0%			Ő	0			Ő	0
G ← Th-Rt Projected: 50		39	Ő	0	0		39	Ő	0	0%	0	39	Ő	0	0	39	Ő	0
Right Mitigated: 50			0	0				0	0	0%			0	0	_		Ő	0
Shared [™]		25	1	139	0		25	1	139	0%	0	25	1	139	0	25	1	139
→ Left			1	4				1	4	0%	_		1	4			1	4
		4	0	0	0		4	0	0	0%	0	4	0	0	0	4	0	0
$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \end{array}\end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} $		0.4.4	2	221			0.44	2	221	15%	40	000	2	227		000	2	227
$\frac{1}{10}$ \rightarrow Th-Rt Projected: 50	%	641	1	221	0		641	1	221	0%	19	660	1	227	- O	660	1	227
Right Mitigated: 50	%	00	0	0			00	0	0	0%		00	0	0		00	0	C
Shared		22	0	0	0		22	0	0	0%	0	22	0	0	0	22	0	0
_ C Left		222	2	183			222	2	183	(10%)	10	054	2	193	0	054	2	193
G T Lt-Th W/B RTOR:	```	332	0	0	0		332	0	0	0%	19	351	0	0	0	351	0	C
$O \leftarrow Thru$ Existing 50%	1	013	2	374	0		1013	2	374	(15%)	25	1038	2	382	0	1038	2	382
$\frac{1}{5}$ $\stackrel{\text{Th-Rt}}{\leftarrow}$ Th-Rt Projected: 50	%	013	1	374	0		1015	1	374	0%	25	1030	1	382	U	1030	1	382
Ö ← Right Mitigated: 50	%	108	0	0	0		108	0	0	0%	0	108	0	0	0	108	0	0
Shared		100	0	0	0		100	0	0	0%	U	100	0	0	U	100	0	0
Critical Volum	nes: N	North-S	South:	409			North-	South:	409			North-	South:	409		North-	South:	409
	-	East-\		404				-West:	404				-West:	420			-West:	420
			otal:	813				Total:	813				Total:	829			Total:	829
Volume/capacity (<i>v/c</i>) r	atio:			0.591					0.591					0.603				0.603
v/c less ATSAC adjustm				0.491					0.491					0.503				0.503
														0.003 A				
Level of Service (Le	53).			Α					А					A E C T	I M P A	СТ		A
									~	h '	/a al		OJE					0.010
Filename: K:\LDT_LDEV\990380	01 Washington & Na	Vational Lowe\[Documents\Tra	affic\Analysis\CMA	Calc Forms\CMAC	alc_Final_Ex+Pro			С	nange ir	n v/c due	to project:		0.012	$\Delta v/c$ after	mitigation:	(0.012

Developed 2005-2007 by Ken Aitchison

Significantly impacted?

NO

N/A

r					1										r			
	tion No. 2		, EXIST				TED CUMU			-		, WITH PF	ROJECT		2014, WI	TH TRAFF		
North/South St	reet:	Critical	Phases:	4	Ambient (<u>Growth</u>	Critical	Phases:	4	☑ Ad	jacent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	4
Robertson Bl	vd/Exposition	Ca	apacity:	1375	from:	2014	С	apacity:	1375	Trip	AM	192	98	290	-	C	apacity:	1375
East/West Stree	et:	Signal S	System:	3	to:	2014	Signal	System:	3	Gen 1	PM	149	193	342	🗖 Use Dist	21 Signal S	System:	3
Venice Bou	llevard	v/c red	duction:	10%	at:	0.0%	v/c re	duction:	10%	Trip	AM	0	0	0		v/c red	duction:	10%
Analysis Date:	: 10/29/2015	Opposed P	hasing:	1			Opposed I	Phasing:	1	Gen 2	PM	0	0	0		Opposed F	hasing:	1
AM Peak	8:00 AM	Counts		Lane	-	+ Area	= Total		Lane		Project	= Total		Lane	Adjusted	Total		Lane
	0.00 AM	Volume	Lanes		Growth	Projects	Volume	Lanes	Volume		Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
D Left		68	1	68	0		68	1	68	(5%)	5	73	1	73	0	73	1	73
Ph Left Lt-Th oq ↑ Thru thru thru thru cr Right	<u>N/B RTOR:</u>		0	0	-			0	0	0%			0	0	-		0	0
C Thru	Existing: 75%	461	1	461	0		461	1	461	0%	0	461	1	461	0	461	1	461
£ I≁Th-Rt	Projected: 75%		0	0				0	0	0%			0	0			0	0
o ⊂ Right	Mitigated: 75%	48	1	30	0		48	1	30	0%	0	48	1	30	0	48	1	30
[∠] ↔ Shared			0	0				0	0	0%	•	-10	0	0	•	-0	0	0
ס [⊾] Left		416	1	229	0		416-	1	229	0%	0	416	1	229	0	416	1	229
ך ⊱Lt-Th	S/B RTOR:	410	1	290	U U		410	1	290	0%	•	410	1	290	•	-10	1	290
Punoq↓ Thru qutnoq↓ Th-Rt O Right	Existing: 50%	103		0	0		103	0	0	0%	0	103	0	0	0	103	0	0
⊊ ⊷ Th-Rt	Projected: 50%	105	0	0	U		103	0	0	0%	U	105	0	0	U	105	0	0
Right	Mitigated: 50%	F40	1	335			540	1	335	0%	0	540	1	335		E40	1	335
[∽] ↔ Shared		519	0	0	0		519	0	0	0%	U	519	0	0	0	519	0	0
J Left			2	202				2	202	0%	_		2	202			2	202
	E/B RTOR:	368	0	0	- 0		368	0	0	0%	0	368	0	0	0	368	0	0
$\begin{array}{c} \begin{array}{c} \downarrow \downarrow \downarrow Lt-Th \\ \neg \downarrow Thru \\ \downarrow \downarrow \downarrow \uparrow \downarrow \uparrow Th-Rt \end{array}$	Existing: 0%		1	706				1	706	25%	10		1	730			1	730
⊕ to Th-Rt	Projected: 0%	1383	1	706			1383	1	706	0%	48	1431	1	730	0	1431	1	730
Right	Mitigated: 0%		0	0				0	0	0%			0	0			0	0
\rightarrow Shared		28	Ő	0			28	Ő	Ő	0%	0	28	Ő	Ő	0	28	ŏ	ŏ
€ Left			1	24				1	24	0%			1	24			1	24
tt-Th v ↓ Lt-Th v ↓ Thru ts ↓ Th-Rt	W/B RTOR:	24	0	0			24	0	0	0%	0	24	0	0	0	24	Ö	
$5 \leftarrow Thru$	Existing: 0%		1	571	-			1	571	(20%)			1	581			1	581
to the	Projected: 0%	1001	1	571	- 0		1001	1	571	0%	20	1021	1	581	0	1021	1	581
A = Right	Mitigated: 0%		ין 0	0				0	0	0%			0	0			0	0
\geq \rightarrow Shared	wiitigateu. 076	140	0	0	0		140	0	0	0%	0	140	0	0	0	140	0	0
		N	-					0	700	070		N		`		N N		700
C	ritical Volumes:	North-		796			_		796			North-		796		North-		796
			-West:	773				-West:	773				-West:	783			-West:	783
			Total:	1569				Total:	1569				Total:	1579			Total:	1579
Volume/ca	apacity (<i>v/c</i>) ratio:			1.141					1.141					1.148				1.148
v∕c less A	TSAC adjustment:			1.041					1.041					1.048				1.048
Level	of Service (LOS):			F					F					F				F
L	· /			•	1				•	1		PR	OJE	ECT	IMPA	АСТ		•
Filename:	KALDT L DEMONO20001 March	ington & Motional I	o)Documents) T	roffiel Analysis (Ch		ale Final Fur Pro			C	hange ir		to project:		0.007				0.007
	K:\LDT_LDEV\99038001 Washi 05-2007 by Ken Aitchis	-	evocuments/1	ranicvanatysis\CM	ACAIC FUIMS/CMAC	aic_FIIIdI_EX+Pf0			0	•		impacted?		NO		mitigated?		0.007 N/A
Developed 200	55 2007 by Nett AllChis									Sigi	meanity	inipacieu?		NU	Fully	milyaleu?		\mathbf{N}/\mathbf{A}

Intersect	tion No. 2	2014	, EXIST	ING	2014		TED CUMULATI			201/	I, WITH PF			2014 \\/I	TH TRAFF		CATION
North/South Str			Phases:		Ambient 0		Critical Phase		🗹 Adj		<u>In</u>	Out	Total	2014, 001		Phases:	
	vd/Exposition		apacity:		from:	2014		y: 1375	Trip	AM	192	<u>98</u>	290			apacity:	-
East/West Stree			System:		to:	2014	Signal Syste	•	Gen 1	PM	149	193		Use Dist		System:	
Venice Bou		-	duction:		at:	0.0%	v/c reductio		Trip	AM	0	0	0		-	duction:	
	10/29/2015	Opposed P					Opposed Phasir		Gen 2	PM	0	0	0		Opposed F		
5		Counts	5	Lane	+ Amb.	+ Area	= Total	Lane	+ F	Project	Total		Lane	Adjusted	Total	5	Lane
PM Peak:	5.00 PIVI	Volume	Lanes	Volume	Growth	Projects	Volume Lan		V	/olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
<u>ר</u> ק Left		96	1	96	0		96	1 96	(5%)	10	106	1	106	0	106	1	106
p ∩ Left n ↑ Lt-Th o ↑ Thru ↓ ↑ Th-Rt o ↑ Right	<u>N/B RTOR:</u>		0	0	Ŭ		00	00	0%			0	0			0	0
<u> </u>	Existing: 50%	376	1	376	0		376	1 376		0	376	1	376	0	376	1	376
£ rrh-Rt	Projected: 50%		0	0				0 0	0%			0	0	Ŭ		0	0
	Mitigated: 50%	29	1	15	0		29	1 15		0	29	1	15	0	29	1	15
Shared			0	0			20	0 0	0%			0	0	•		0	0
⊇ ^{Left}		319	1	175	0		319	1 175	0%	0	319	1	175	0	319	1	175
Lt-Th	<u>S/B RTOR:</u>	010	1	230	Ŭ		010	1 230	-		0.0	1	230		010	1	230
$p \downarrow Lt-Th$ $q \downarrow Thru$ $q \downarrow Th-Rt$ $n \downarrow Right$	Existing: 50%	86	0	0	0		86	0 0	0%	0	86	0	0	0	86	0	0
ਦੂ ← Th-Rt	Projected: 50%		0	0				0 0	0%			0	0	Ŭ		0	0
(A)	Mitigated: 50%	328	1	205	0		328	1 205	0%	0	328	1	205	0	328	1	205
Shared			0	0				0 0	0%			0	0			0	0
J Left		246	2	135	0		246	2 135		0	246	2	135	0	246	2	135
th-und the state of the state	<u>E/B RTOR:</u>	2.10	0	0	Ŭ		2.0	00	0%		2.10	0	0		2.10	0	0
$\vec{O} \rightarrow \text{Thru}$	Existing: 0%	1282	1	657	0		1282	1 657	25%	37	1319	1	676	0	1319	1	676
	Projected: 0%		1	657				1 657	0%			1	676			1	676
Right	Mitigated: 0%	32	0	0	0		32	0 0	0%	0	32	0	0	0	32	0	0
Shared			0	0				0 0	0%			0	0			0	0
ວ ← Left		29	1	29	0		29	1 29		0	29	1	29	0	29	1	29
tt-Th tt-Th tt-Th tru ts ↓ Th-Rt	<u>W/B RTOR:</u>		0	0				0 0	0%			0	0			0	0
o ← Thru	Existing: 0%	1019	1	548	0		1019	1 548		39	1058	1	567	0	1058	1	567
Th-Rt	Projected: 0%		1	548				1 548				1	567			1	567
$\overset{0}{\geq} \overset{1}{\leftarrow} \text{Right}$	Mitigated: 0%	76	0	0	0		76	0 0	0%	0	76	0	0	0	76	0	0
Shared			0	0				0 0	0%			0	0			0	0
Cr	ritical Volumes:	North-	South:	606			North-Sout				North-	South:	606		North-	South:	606
		East	-West:	686			East-We				East	-West:	705		East	-West:	705
			Total:	1292			Tota	ıl: 1292				Total:	1310			Total:	1310
Volume/ca	apacity (<i>v/c</i>) ratio:			0.939				0.939					0.953				0.953
v∕c less AT	SAC adjustment:			0.839				0.839					0.853				0.853
	of Service (LOS):			D				D					D				D
	(200).				<u> </u>				I		ΡR		ECT	IMPA	АСТ		
Filonomo		nation 0 Method -11	•\Decur:**	roffiel Another 1-10	Colo Formal Object	ala Final Fr. P. 1		ſ	hange in	v/c duo	to project:		0.014				0.014
Filename: Developed 200	K:\LDT_LDEV\99038001 Washi	-	evuocuments/11	ranicvanalysis\CMA	Calc Forms/CMAC	aic_FINAI_EX+Pro		C	•		impacted?		NO		mitigated?		N/A
Developed 200	S 2007 by Nen Altonia								Sight	meanity	impacted?		NO	r uny	milyaleu?		N/A

Intersect			, EXISTI				TED CUMU					, WITH PF				TH TRAFF		
North/South Stre			Phases:		Ambient G			Phases:	-		jacent	<u>In</u>	<u>Out</u>	<u>Total</u>			Phases:	
National Bo			apacity:		from:	2014		apacity:		Trip	AM	192	98	290			apacity:	
East/West Stree	-	Ũ	System:		to:	2014	0	System:		Gen 1	PM	149	193	342	Use Dist	0	System:	
Venice Boul	levard		duction:		at:	0.0%		duction:		Trip	AM	0	0	0			duction:	
Analysis Date:	10/29/2015	Opposed P	hasing:				Opposed F	Phasing:		Gen 2	PM	0	0	0		Opposed F	Phasing:	
AM Peak:	8:00 AM	Counts	Lamaa	Lane	+ Amb.	+ Area	= Total	Lamaa	Lane		Project	= Total	Lanaa	Lane	Adjusted	Total	Lanaa	Lane
5 1-0		Volume	Lanes	Volume 148	Growth	Projects	Volume	Lanes	Volume 148	(20%)	/olume	Volume	Lanes	Volume 168	Volume	Volume	Lanes	Volume 168
und Lt-Th	N/B RTOR:	148	0	0	0		148	0	140	0%	20	168	0	001	0	168	0	100
			1	355				1	355	(20%)			1	372			2	333
G PTh-Rt	Existing: 50%	645		355	0		645	1	355	(20%)	20	665	1	372	0	665	2	0
	Projected: 50%			0				1	300	(15%)			0	_			1	39
O C Right → Shared	Mitigated: 50%	64	0	0	0		64	0	0		15	79	0	0	0	79	0	39
			1	124				0	124	0%			1	124			1	124
		124	1		0		124	1	124	0%	0	124	0	124	0	124	0	124
S S→Lt-Th	<u>S/B RTOR:</u>		0	0				0	0	0%			- r	070			0	070
Pun ⊳Lt-Th Oquit Thru un v Th-Rt	Existing: 50%	611	1	356	0		611	1	356	25%	44	655	1	378	0	655	1	378
ti ← Th-Rt	Projected: 50%		1	356				1	356	0%			1	378			1	378
	Mitigated: 50%	100	0	0	0		100	0	0	0%	0	100	0	0	0	100	0	0
⁰⁷ ↔ Shared			0	0				0	0	0%			0	0			0	0
		58	1	58	0		58	1	58	(5%)	5	63	1	63	0	63	1	63
3	<u>E/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
$\vec{o} \rightarrow \text{Thru}$	Existing: 0%	1144	3	381	0		1144	3	381	(10%)	9	1153	3	384	0	1153	3	384
$\frac{1}{5}$ $$ Th-Rt	Projected: 0%		0	0				0	0	0%			0	0			0	0
	Mitigated: 0%	188	1	188	0		188	1	188	5%	10	198	1	198	0	198	1	198
			0	0				0	0	0%			0	0			0	0
ס < Left		45	1	45	0		45	1	45	20%	34	79	1	79	0	79	1	79
¬ • • • • • • • • • • • • • • • • •	<u>W/B RTOR:</u>	10	0	0	Ŭ		10	0	0	0%	•••		0	0			0	0
Q ← Thru	Existing: 0%	883	2	442	0		883	2	442	0%	0	883	2	442	0	883	2	442
$\frac{1}{100}$ $\frac{1}{100}$ Th-Rt	Projected: 0%		0	0				0	0	0%			0	0			0	0
	Mitigated: 0%	113	1	113	0		113	1	113	0%	0	113	1	113	0	113	1	113
> → Shared		110	0	0	,		110	0	0	0%		110	0	0	· ·	110	0	0
Cri	itical Volumes:	North-	South:	504			North-	South:	504			North-	South:	546		North-	South:	546
		East	-West:	500			East	-West:	500			East	-West:	505		East	-West:	505
			Total:	1003				Total:	1003				Total:	1050			Total:	1050
Volume/ca	pacity (<i>v/c</i>) ratio:			0.704					0.704					0.737				0.737
	SAC adjustment:			0.604					0.604					0.637				0.637
Level	of Service (LOS):			В					В					<u> </u>				В
									-		, .			<u>E C T</u>	IMPA			
	K:\LDT_LDEV\99038001 Washi	-	e\Documents\Tr	affic\Analysis\CMA	Calc Forms\CMAC	alc_Final_Ex+Pro			С	•		to project:		0.033		0		0.033
Developed 2008	5-2007 by Ken Aitchis	son								Sign	iiticantly	impacted?		NO	Fully	mitigated?		N/A

					1										1			
Intersect	tion No. <u>3</u>	2014	, EXIST	NG	2014	PROJEC	TED CUMUL	ATI VE	BASE			, WITH PF	ROJECT		2014, WI	TH TRAFF	IC MITI	GATION
North/South Str	reet:	Critical I	Phases:	3	Ambient G	irowth	Critical P	hases:	3	🗹 Adj	acent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	3
National Bo	oulevard	Ca	apacity:	1425	from:	2014	Са	pacity:	1425	Trip	AM	192	98	290	_	C	apacity:	1425
East/West Stree	et:	Signal S	System:	3	to:	2014	Signal S	ystem:	3	Gen 1	PM	149	193	342	🗖 Use Dist	2: Signal	System:	3
Venice Bou	levard	v/c rec	duction:	10%	at:	0.0%	v/c red	uction:	10%	Trip	AM	0	0	0		v/c re	duction:	10%
Analysis Date:	10/29/2015	Opposed P	hasing:	0			Opposed Ph	nasing:	0	Gen 2	PM	0	0	0		Opposed I	Phasing:	0
PM Peak:	5:45 PM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	Total		Lane	Adjusted	Total		Lane
	0.401 1	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes			/olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
<u>ר</u> ק Left		120	1	120	0		120	1	120	(20%)	39	159	1	159	0	159	1	159
p Left Lt-Th o ↑ Thru Lt-Th o ↑ Th-Rt o ↑ Right	<u>N/B RTOR:</u>	-	0	0	-			0	0	0%			0	0			0	0
<u> </u>	Existing: 50%	591	1	361	0		591	1	361	(20%)	39	630	1	393	0	630	2	315
£ ווי Th-Rt	Projected: 50%		1	361				1	361	0%			1	393			0	0
	Mitigated: 50%	131	0	0	0		131	0	0	(15%)	25	156	0	0	0	156	1	86
[∠] ↔ Shared		101	0	0	•		101	0	0	0%	25	100	0	0	•	100	0	0
- → Left		146	1	146	0		146	1	146	0%	0	146	1	146	0	146	1	146
Ē ,⊳Lt-Th	S/B RTOR:	140	0	0	U		140	0	0	0%	U	140	0	0	U	140	0	0
v Left v Lt-Th oq ↓ Thru thru thru v Right	Existing: 50%	646	1	356	0		646	1	356	25%	37	683	1	374	0	683	1	374
⊊ 🕂 Th-Rt	Projected: 50%	040	1	356	U		040	1	356	0%	31	003	1	374	0	003	1	374
Right	Mitigated: 50%	05	0	0	0		05	0	0	0%	~	05	0	0	0	05	0	0
Shared		65	0	0	0		65	0	0	0%	0	65	0	0	0	65	0	0
J Left			1	92				1	92	(5%)	40	400	1	102	_	400	1	102
ਟ ⊀ I t-Th	E/B RTOR:	92	0	0	0		92	0	0	0%	10	102	0	0	0	102	0	0
$\begin{array}{c} \text{purple} \\ \text{purple} \\$	Existing: 0%		3	381				3	381	(10%)			3	388			3	388
tion → Th-Rt	Projected: 0%	1144	Õ	0	0		1144	Õ	0	0%	19	1163	0	000	0	1163	Ő	000
Right	Mitigated: 0%		1	167				1	167	5%			1	174			1	174
\rightarrow Shared	Willigated. 070	167	0	0	0		167	0	0	0%	7	174	0	0	0	174	0 0	0
_ ← Left			1	110				1	110	20%			1	140			1	140
	W/B RTOR:	110	0	0	0		110	0	0	0%	30	140	0	0+1	0	140	0	0
Lt-Th			2	466					466	0%				466				466
tt-Th c thru tru tru tru tru tru tru	Existing: 0%	931	2 0	400	0		931	2 0	400	0%	0	931	2 0	400	0	931	2 0	400
$\Theta \leftarrow \Pi - Rl$	Projected: 0%		1	85				1					0	• •			0	85
	Mitigated: 0%	85			0		85	1	85	0%	0	85	1	85	0	85	1	
> → Shared			0	0				0	0	0%			0	0			0	0
Cr	ritical Volumes:	North-		507			North-S		507			North-		539			South:	533
			-West:	558			East-		558				-West:	568			-West:	568
			Total:	1065			Г	Fotal:	1065				Total:	1107			Total:	1101
Volume/ca	apacity (<i>v/c</i>) ratio:			0.747					0.747					0.776				0.772
v∕c less AT	SAC adjustment:			0.647					0.647					0.676				0.672
	of Service (LOS):			B					B					B				B
Level	01 001 VICC (LOO).			D					D			חם		ECT		ЛСТ		D
									~	honest				-				
Filename:	K:\LDT_LDEV\99038001 Washi	-	e\Documents\Ti	affic\Analysis\CM/	ACalc Forms\CMAC	alc_Final_Ex+Pro			C	•		to project:		0.029	$\Delta v/c$ after	0		0.025
Developed 200	5-2007 by Ken Aitchis	son								Sign	ificantly	impacted?		NO	Fully	mitigated?		N/A

					-													
Intersection No. 4 2014, E			EXISTI	NG	2014	PROJEC	TED CUMULATI VE BASE			2014, WITH PROJECT						2014, WITH TRAFFIC MITIGATION		
North/South Street:		Critical F	Phases:	2	Ambient Growth		Critical Phases: 2		Adjacent				<u>Total</u>			al Phases: 2		
Helms Avenue		Capacity: 1500		from:	2014	14 Capacity: 1500		Trip	Trip AM 173 8		83	256	Capacity		apacity:	1500		
East/West Street:		Signal S	System:	3	to:	2014	Signal System: 3		Gen 1	PM	127 174		301	Use Dist 2: Signal System		System:	3	
Venice Boulevard		v/c red	luction:	10%	at:	0.0%	.0% v/c reduction: 10%		Trip	Trip AM O		0	0) v/c reduction:		duction:	10%	
Analysis Date:	10/29/2015	Opposed P	hasing: (0			Opposed P	hasing: (0	Gen 2	PM	0	0	0		Opposed I	Phasing:	0
AM Peak:	8.00 AM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	= Total		Lane	2	Total		Lane
5 Loft	0.007	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume	0%	Volume	Volume	Lanes	Volume		Volume	Lanes	Volume
	N/B RTOR:	2		2	0		2		2	0%	0	2		2		2	0	2
			0	0				0		0%			0	0			0	0
	Existing: 0%	15	0	0	0		15	0	0	0%	0	15	0	0	0	15	0	0
fr fr Th-Rt	Projected: 0%		0	0				0	0				· ·	1			0	1
O	Mitigated: 0%	1	0	10	0		1	0	10	0% 0%	0	1	0	10	0	1	1	10
			1	<u>18</u> 27					<u>18</u> 27	0%			0	<u>18</u> 27			0	<u>18</u> 27
		27	0		0		27	0			0	27	0		0	27		
	<u>S/B RTOR:</u>		0	0				0	0	0%				0			0	0
C ↓ Thru	Existing: 0%	9	0	0	0		9	0	0	0%	0	9	0	0		9	0	0
·	Projected: 0%		<u> </u>	0					0	0%			•	0			•	10
	Mitigated: 0%	12	0 4 [12	0		12	0	12	0%	0	12	0	12	0	12	0	12
			1	48				1	48	0%			1	48			1	48
		38		38	0		38	1	38	0%	0	38	1	38		38	1	38
	E/B RTOR:		0	0				0	0	0%			0 0	0			0	0
$O \rightarrow Ihru$	Existing: 0%	1359	3	453	0		1359	3	453	(20%)	17	1376	3	459		1376	3	459
Th-Rt	Projected: 0%		0	0				0	0	0%			0	0			0	0
	Mitigated: 0%	10	1	10	0		10	1	10	(5%)	4	14	1	14		14	1	14
			0	0				0	0	0%			0	0			0	0
v ← Left		44	1	44	0		44	1	44	0%	0	44	1	44		44	1	44
⊑ 🛠 Lt-Th	<u>W/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
	Existing: 0%	1047	3	349	0		1047	3	349	20%	34	1081	3	360		1081	3	360
$\frac{1}{10}$ $\frac{1}{10}$ Th-Rt	Projected: 0%		0	0				0	0	0%			0	0			0	0
	Mitigated: 0%	62	1	62	0		62	1	62	0%	0	62	1	62	0	62	1	62
> → Shared			0	0				0	0	0%			0	0			0	0
Cri	itical Volumes:	North-	South:	50			North-	South:	50			North-	South:	50		North-	South:	50
		East-West: 497		497			East-West: 497				East	-West:	503		East	-West:	503	
		-	Total:	547			-	Total:	547				Total:	553			Total:	553
Volume/ca	pacity (<i>v/c</i>) ratio:			0.365					0.365					0.368				0.368
v/c less ATSAC adjustment:		0.265						0.265			0.2						0.268	
	of Service (LOS):			A					A					Δ				A
				А	1				А			DD	OJE	E C T	IMPA	νст		А
									0	hango in	w/c duc	to project:		0.003				0.003
	K:\LDT_LDEV\99038001 Washi	-	Nocuments\Tr	attic\Analysis\CMA	ACalc Forms\CMAC	alc_Final_Ex+Proj			C	•						0		
Developed 2005	5-2007 by Ken Aitchis	011								Sigr	inicantiy i	impacted?		NO	Fully	mitigated?		N/A

				r													
Intersection No. 4 2014, EXIS			NG	2014	PROJEC	TED CUMULATIVE BASE			2014, WITH PROJECT					2014, WI	, WITH TRAFFIC MITIGATIO		
North/South Street:	Critical	Critical Phases: 2			<u>Growth</u>	Critical Phases: 2		Adjacent		<u>In</u>					Phases: 2		
Helms Avenue	C	apacity:	1500	from:	2014	Capacity: 150		1500	Trip	AM	173	83	256	Capacit		apacity:	1500
East/West Street:	Signal S	System:	3	to:	2014	Signal System: 3		3	Gen 1	PM	127	174	301	Use Dist 2' Signal System:		System:	3
Venice Boulevard	v/c red	duction:	10%	at:	0.0%	0% v/c reduction: 10°		10%	Trip	Trip AM		0	0		v/c re	v/c reduction: 109	
Analysis Date: 10/29/2015	Opposed F	Phasing:	0			Opposed Ph	nasing:	0	Gen 2 PM		0	0	0		Opposed I	Phasing:	C
PM Peak: 5:25 PM	Counts Volume	Lanes	Lane Volume	+ Amb. Growth	+ Area Projects	= Total Volume	Lanes	Lane Volume		Project Volume	Total Volume	Lanes	Lane Volume	Adjusted Volume	Total Volume	Lanes	Lane Volume
Left	- 4	0	4	0		4	0	4	0%	0	4	0	4	0	4	0	4
D Left Un ↓ Lt-Th N/B RTOR: O ↓ Th-Rt Projected: 0% O C Right Mitigated: 0%	- 4	0	0	0		4	0	0	0%	U	4	0	0	U	4	0	0
S Thru Existing: 0%		0	0	0		2	0	0	0%	0	2	0	0	0	2	0	0
Th-Rt Projected: 0%	2	0	0	0		2	0	0	0%	0	2	0	0	U	2	0	0
Right Mitigated: 0%		0	11				0	11	0%			0	11			0	11
Z ↔ Shared	- 11	1	17	0		11	1	17	0%	0	11	1	17	0	11	1	17
L loft		0	37				0	37	0%	~		0	37	_		0	37
$\begin{array}{c} & \downarrow \\ & \downarrow \\$	- 37	Ō	0	0		37	0	0	0%	0	37	0	0	0	37	Ō	0
Q ↓ Thru Existing: 0%	_	Ő	0			_	0	Ő	0%		_	0	0		_	Ő	Ő
C + Th-Rt Projected: 0%	5	Ő	0	0		5	Ő	Ő	0%	0	5	0	0	0	5	Ő	Ő
Right Mitigated: 0%		Ő	34				Ő	34	0%			0	34			Ő	34
Shared	- 34	1	76	0		34	1	76	0%	0	34	1	76	0	34	1	76
→ Left		1	37				1	37	0%			1	37			1	37
	- 37	0	0	0		37	0	0	0%	0	37	0	0	0	37	0	0
		3	424				3	424	(20%)			3	435			3	435
$\vec{O} \rightarrow \text{Thru}$ Existing: 0%	1272	၁၂ ၂	424	0		1272	၁၂ 0	424	(20%)	34	1306	ာ ၁	435	0	1306	၁၂ 0	435
Th-Rt Projected: 0%		0	•				0	· · · · ·				0	• •			0	•
Right Mitigated: 0%	- 34	1	34	0		34	1	34	(5%)	8	42	1	42	0	42	1	42
→ Shared	-	0	0				0	0	0%			0	0			0	0
ס < Left	- 45	1	45	0		45	1	45	0%	0	45	1	45	0	45	1	45
G ↔ Lt-Th <u>W/B RTOR:</u>	_	0	0				0	0	0%			0	0			0	0
$\vec{o} \leftarrow Thru$ $\vec{t}_{ij} \leftarrow Th-Rt$ Existing: 0% Projected: 0%	1132	3	377	0		1132	3	377	20%	25	1157	3	386	0	1157	3	386
$\frac{1}{10} \stackrel{\text{C}}{\leftarrow} \text{Th-Rt} \text{Projected: 0\%}$		0	0				0	0	0%			0	0			0	0
$ \overset{O}{\underset{t}{\Rightarrow}} \overset{\leftarrow}{\underset{t}{\leftarrow}} \text{Right} \qquad \text{Mitigated: 0\%} $	13	1	13	0		13	1	13	0%	0	13	1	13	0	13	1	13
> → Shared		0	0				0	0	0%			0	0			0	0
Critical Volumes	: North-	South:	87			North-S	South:	87			North-	South:	87		North-	South:	87
	East	-West:	469			East-\	West:	469			East	-West:	480		East	-West:	480
		Total:	556			Т	otal:	556				Total:	567			Total:	567
Volume/capacity (v/c) ratio			0.371					0.371					0.378				0.378
v/c less ATSAC adjustmen			0.271					0.271					0.278				0.278
													_				
Level of Service (LOS	<i>)</i> .		A					Α					<u>А</u> - ст				Α
								-		, .			- • ·				0 007
Filename: K:\LDT_LDEV\99038001 W	-	e\Documents\Tr	affic\Analysis\CM/	ACalc Forms\CMAC	alc_Final_Ex+Pro			С	•		to project:		0.007	$\Delta v/c$ after	0	(0.007
Developed 2005-2007 by Ken Aitc	hison								Sigr	nificantly	mpacted?		NO	Fully	mitigated?		N/A

				-				1				-							
Intersection No. 5	2014	2014, EXISTING			2014, PROJECTED CUMULATIVE BASE					2014, WITH PROJECT					2014, WITH TRAFFIC MITIGATION				
North/South Street:	Critical	Critical Phases: 2			<u>Growth</u>	Critical Phases: 2		Adjacent		<u>In</u>	<u>Out</u> <u>Total</u>			I Phases: 2					
Cattaraugus Avenue	Capacity: 1500		from:	2014	Capacity: 1500		Trip	AM	173	83	256	Capacity		apacity:	1500				
East/West Street:	Signal S	System:	3	to:	2014	Signal System: 2		Gen 1	PM	127	174	301	Use Dist 2' Signal System		System:	2			
Venice Boulevard	v/c rec	duction:	10%	at:	0.0%	v/c reduct	ion: 7%	Trip	AM	0	0	0	v/c reduction:		7%				
Analysis Date: 10/29/2015	Opposed P	hasing: I	0			Opposed Phas	ing: O	Gen 2	Gen 2 PM		0	0		Opposed I	Phasing:	0			
AM Peak: 8:00 AM	Counts		Lane	+ Amb.	+ Area	= Total	Lane		Project	= Total		Lane	Adjusted	Total		Lane			
	Volume	Lanes	Volume	Growth	Projects	Volume La	nes Volume		olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume			
	26	0	26	0		26	0 26	0%	0	26	0	26	0	26	0	26			
String <u>N/B RTOR:</u>		0	0			-	0 0	0%		-	0	0		-	0	0			
p 1 Left U → 1 Lt-Th <u>N/B RTOR:</u> O ↑ Thru Existing: 0% U → Th-Rt Projected: 0% O ← Right Mitigated: 0%	373	0	0	0		373	0 0	0%	0	373	0	0	0	373	0	0			
Frojected: 0%	0.0	0	0	Ŭ		0.0	0 0	0%		0.0	0	0	- V	0.0	0	0			
	24	0_	24	0		24	0 24	0%	0	24	0	24	0	24	0	24			
∠ +→ Shared	27	1	423			24	1 423	0%	U	24	1	423	V	24	1	423			
ש ⊆ Left	171	0	171	0		171	0 171	0%	0	171	0	171	0	171	0	171			
S →Lt-Th S/B RTOR:	1/1	0	0	0		171	0 0	0%	U	171	0	0	U	171	0	0			
$\begin{array}{c} & & \\$	00	0	0	0		00	0 0	0%	0	00	0	0	0	00	0	0			
☐ ↓ Th-Rt Projected: 0%	96	0	0	0		96	0 0	0%	0	96	0	0	U	96	0	0			
Right Mitigated: 0%		0	20				0 20	5%		~~~	0	28		~~~	0	28			
∽ ↔ Shared	20	1	287	0		20	1 287	0%	8	28	1	295	0	28	1	295			
⊅ Left		1	59				1 59				1	63			1	63			
$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \end{array}\end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} $	59	O	0	0		59	0 0		4	63	0	0	0	63	O	0			
$\overrightarrow{O} \rightarrow \text{Thru}$ Existing: 0%		3	449				3 449				3	453			3	453			
$\begin{array}{c} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 $	1347	0		- 0		1347	0 0		13	1360	0		0	1360	0				
Right Mitigated: 0%		1					1 8				1				1	8			
	8		8 0	0		8	-		0	8	1	8	0	8		0			
		0					$\begin{array}{c c} 0 & 0 \\ \hline \end{array}$				0	0			0	470			
	176	• [176	0		176	1 176		0	176	1	176	0	176	1	176			
$\subseteq \checkmark$ Lt-Th <u>W/B RTOR:</u>		0	0				0 0				0	0			0	0			
$\vec{o} \leftarrow \text{Thru}$ Existing: 0% $\vec{t}_{\mathcal{O}} \stackrel{\text{L}}{\hookrightarrow} \text{Th-Rt}$ Projected: 0%	1092	3	364	0		1092	3 364		26	1118	3	373	0	1118	3	373			
$\frac{1}{100} \stackrel{\text{C}}{\longrightarrow} \text{Th-Rt} \qquad \text{Projected: } 0\%$		0	0				0 0				0	0			0	0			
$ \overset{(0)}{\Rightarrow} \stackrel{\leftarrow}{\leftarrow} \text{Right} \qquad Mitigated: 0\% $	195	1	195	0		195	1 195		0	195	1	195	0	195	1	195			
Shared	100	0	0	, v		100	0 0	0%	U	100	0	0		100	0	0			
Critical Volumes	North-	South:	594			North-Sou	uth: 594			North-	South:	594		North-	South:	594			
		East-West: 625				East-West: 625					East-West: 629				-West:	629			
		Total:	1219			Tot					Total:	1223			Total:	1223			
Volume/capacity (v/c) ratio		· otai.	0.813			10	0.813				. otal.	0.816			, otal.	0.816			
v/c less ATSAC adjustment			0.713				0.743					0.746				0.746			
Level of Service (LOS)	:		С				С					С				С			
										<u>P R</u>		ЕСТ	IMPA	<u> </u>					
Filename: K:\LDT_LDEV\99038001 Wa:	shington & National Low	e\Documents\Tr	affic\Analysis\CM	ACalc Forms\CMAC	alc_Final_Ex+Pro		C	change in	v/c due	to project:		0.003	$\Delta v/c$ after	mitigation:		0.003			
Developed 2005-2007 by Ken Aitch	ison							Signi	ificantly i	mpacted?		NO	Fully	mitigated?		N/A			
								-					-						

				_				1				-						
Intersection No. 5	2014, EXISTING			2014	TED CUMULATI	VE BASE	_		, WITH PF	ROJECT	2014, WITH TRAFFIC MITIGATION							
North/South Street:	Critical Phases: 2			Ambient Growth		Critical Phases: 2		Adjacent		<u>In</u>					al Phases: 2			
Cattaraugus Avenue	Capacity: 1500		from:	2014	Capacity: 1500		Trip	Trip AM		83	256	-	С	apacity:	1500			
East/West Street:	Signal S	System:	3	to:	2014	Signal System: 2		Gen 1	PM	127	174	301	🗖 Use Dist	21 Signal	System:	stem: 2		
Venice Boulevard	v/c reduction: 10%		at:	0.0%	v/c reductio	n: 7%	Trip	AM	0	0 0			v/c re	duction:	7%			
Analysis Date: 10/29/2015	Opposed Phasing: 0				Opposed Phasing: 0		Gen 2 PM		0	0	0		Opposed I	Phasing:	C			
PM Peak: 5:25 PM	Counts		Lane	+ Amb.	+ Area	= Total	Lane		Project	Total		Lane	,	Total		Lane		
	Volume	Lanes	Volume	Growth	Projects	Volume Lane			/olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume		
ב Left	11	0	11	0		11	0 11	0%	0	11	0	11	0	11	0	11		
Lt-Th <u>N/B RTOR:</u>		0	0				0 0				0	0			0	0		
C Thru Existing: 0%	79	0	0	0		79	0 0	0%	0	79	0	0	0	79	0	0		
th-Rt Projected: 0%		0	0				00	0%			0	0			0	0		
D I Lent U ↓ Lt-Th N/B RTOR: O ↑ Thru Existing: 0% U ↓ Th-Rt Projected: 0% Mitigated: 0% Mitigated: 0%	30	0	30	0		30	0 30	0%	0	30	0	30	0	30	0	30		
[∠] ↔ Shared		1	120	•		00	1 120		U	00	1	120	•	00	1	120		
	307	0	307	0		307	0 307	0%	0	307	0	307	0	307	0	307		
S →Lt-Th <u>S/B RTOR:</u>	307	0	0	U		307	0 0	0%	U	307	0	0	U	307	0	0		
Lt-Th S/B RTOR: ↓ Lt-Th Existing: 0% ↓ Th-Rt Projected: 0% Mitigated: 0%	150	0	0	0		150	0 0	0%	0	150	0	0	0	150	0	0		
☐ ↓ Th-Rt Projected: 0%	150	0	0	U		150	0 0	0%	0	150	0	0	0	150	0	0		
Right Mitigated: 0%		0	21			04	0 21	5%	_	07	0	27	_	07	0	27		
∽ ↔ Shared	21	1	478	0		21	1 478	0%	6	27	1	484	0	27	1	484		
⊅ Left		1	56				1 56		_		1	64	_		1	64		
$E \rightarrow Lt-Th$ E/B RTOR:	56	0	0	0		56	0 0		8	64	0	0	0	64	0	0		
$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \end{array}\end{array} \\ \begin{array}{c} \begin{array}{c} \end{array}\end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} $		3	453				3 453				3	462			3	462		
$\frac{1}{2} \xrightarrow{\text{rojected: 0\%}} \text{Th-Rt}$	1360	0	0	0		1.360			26	1386	0	0	0	1386	0	0		
$\begin{array}{c} & & \\$		1	23				1 23				1	23			1	23		
$\begin{array}{c} \textcircled{0}{} & & \\ & & $	23	0	23	0		23	1 23 0 0		0	23	0	23	0	23	0	23		
		1	99				0 0 1 99				1	<u> </u>			1	<u> </u>		
v Left v ∠Lt-Th <u>W/B RTOR:</u>	99	•		0		aa			0	99	L	99	0	99				
S ← Lt-Th W/B RTOR:		0	0				0 0				0	· · · · ·			0	0		
$ \begin{array}{c} \overrightarrow{O} \leftarrow \text{Thru} \\ \overrightarrow{O} \leftarrow \overrightarrow{Thru} \\ \overrightarrow{J} \leftarrow \overrightarrow{Th-Rt} \\ \end{array} \begin{array}{c} \text{Existing: 0\%} \\ \text{Projected: 0\%} \end{array} $	1042	3	347	0		1042	3 347	15%	19	1061	3	354	0	1061	3	354		
$\frac{2}{10} \stackrel{\text{c}}{\leftarrow} \text{Th-Rt} \qquad \frac{\text{Projected: } 0\%}{10}$		0	0				0 0				0	0			0	0		
Mitigated: 0%	62	1	62	0		62	1 62	0%	0	62	1	62	0	62	1	62		
Shared		0	0			02	00	0%	Ŭ	02	0	0		02	0	0		
Critical Volumes:	North-S	South:	508			North-Sout	n: 508			North-	South:	514		North-	South:	514		
	East-	West:	552			East-Wes			East	-West:	561		East-West: 56					
		Total:	1060			Tota					Total:	1075			Total:	1075		
Volume/capacity (v/c) ratio:			0.707				0.707					0.717				0.717		
,																		
v/c less ATSAC adjustment:			0.607				0.637					0.647				0.647		
Level of Service (LOS):			В				В			_		B				В		
												ЕСТ	IMPA					
Filename: K:\LDT_LDEV\99038001 Wash	ington & National Lowe	e\Documents\Tr	affic\Analysis\CM/	ACalc Forms\CMAC	alc_Final_Ex+Pro		C	Change in	v/c due	to project:		0.010	$\Delta v/c$ after	mitigation:	(0.010		
Developed 2005-2007 by Ken Aitchis	son							Sign	ificantly	impacted?		NO	Fully	mitigated?		N/A		
Luting		2014	EVICTI		0014			A T 1 \ / E	DACE		0014				0014 14/			OATION
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	tion No. 6		, EXISTI				TED CUMULA				acent	, WITH PF		Tatal	2014, WI	TH TRAFF		
North/South Str			Phases:		Ambient (Critical Ph		-			<u>In</u>	Out	<u>Total</u>			Phases:	
	Blvd/Higuera		apacity:		from:	2014	•	pacity:		Trip	AM	173	83	256			apacity:	
East/West Stree			System:		to:	2014	Signal Sy			Gen 1	PM	127	174		Use Dist	•	System:	
	n Boulevard		duction:		at:	0.0%	v/c redu			Trip	AM	0	0	0			duction:	
Analysis Date:	10/29/2015	Opposed P	hasing:		6 h	A	Opposed Pha	asing:		Gen 2	PM	0	0	0	A .12	Opposed	hasing:	
AM Peak:	8:00 AM	Counts Volume	Lanes	Lane Volume	+ Amb. Growth	+ Area Projects	= Total Volume I	Lanes	Lane Volume		Project /olume	= Total Volume	Lanes	Lane Volume	Adjusted Volume	Total Volume	Lanes	Lane Volume
Left آ 🚽			1	62	_	1.0]0010		1	62	0%	-		1	62			1	62
⊑ ← Lt-Th	N/B RTOR:	62	0	0	0		62	0	0	0%	0	62	0	0	0	62	0	0
S ↑ Thru	Existing: 0%		1	315			0.15	1	315	0%		o. (=	1	315			1	315
H → Th-Rt	Projected: 0%	315	0	0	0		315	0	0	0%	0	315	0	0	0	315	0	0
p Left Lt-Th oq ↑ Thru trop ↑ Th-Rt o	Mitigated: 0%		1	124				1	124	0%			1	124			1	124
Z ↔ Shared		124	0	0	0		124	0	0	0%	0	124	0	0	0	124	0	0
			1	57				1	57	0%	_		1	57			1	57
v Left v Lt-Th oq ↓ Thru u ↓ Th-Rt v Aight	S/B RTOR:	57	0	0	0		57	0	0	0%	0	57	0	0	0	57	0	0
	Existing: 0%		1	114				1	114	0%			1	114			1	114
L ← Th-Rt	Projected: 0%	114	O		0		114	0	0	0%	0	114	Ó	0	0	114	O	0
	Mitigated: 0%		1	38				1	38	0%			1	38			1	38
Shared	miligatour o /o	38	ò	0	0		38	Ö	0	0%	0	38	0	0	0	38	Ó	0
J Left			1	51				1	51	0%			1	51			1	51
Z → Lt-Th	E/B RTOR:	51	0	0	0		51	Ö	0	0%	0	51	0	0	0	51	Ö	0
$\begin{array}{c} \downarrow \downarrow Lt-Th \\ \downarrow \downarrow Thru \\ \downarrow \downarrow Th-Rt \\ \downarrow \downarrow \downarrow \downarrow Lt-Th \\ \downarrow \downarrow \downarrow \downarrow Lt-Th \\ \downarrow \downarrow \downarrow \downarrow Lt-Th \\ \downarrow \downarrow \downarrow \downarrow \downarrow Lt-Th \\ \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow Lt-Th \\ \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow Lt-Th \\ \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow Lt-Th \\ \downarrow Lt-Th \\ \downarrow $	Existing: 50%		1	600				1	600	5%			1	605			1	605
$\begin{array}{c} 0 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\$	Projected: 50%	1091	1	600	0		1091	1	600	0%	9	1100	1	605	0	1100	1	605
	Mitigated: 50%		0	000				0 0	000	0%			ין 0	005	-		0	003
\rightarrow Shared	wiitigateu. 5078	109	0	0	0		109	0	0	0%	0	109	0	0	0	109	0	0
C L oft			1	111				1	111	0%			1	111			1	111
σ	W/B RTOR:	111	0	0	0		111	0	0	0%	0	111	ין 0	0	0	111	0	0
⊆ ゲ Lt-Th ♀ ← Thru	Existing: 50%		2	566				2	566	0%			2	566			2	566
$\begin{array}{c} Thru \\ Thru \\ Th-Rt \\ Th-Rt \end{array}$	Projected: 50%	1131	0	0	0		1131	0	0	0%	0	1131	0	0	0	1131	2	0
$\stackrel{\text{S}}{\rightarrow}$ $\stackrel{\text{TI-Rt}}{\leftarrow}$ Right	Mitigated: 50%		1	180				1	180	(5%)			1	184			1	184
$\stackrel{0}{\stackrel{\checkmark}{\rightarrow}} \stackrel{\leftarrow}{{{\rightarrow}}} Right$	Milligated. 50%	208	0	180	0		208	0	100	(3%)	4	212	0	04	0	212	0	0
				`				· · ·		0 //0							U	
C	ritical Volumes:	North-		372			North-S		372			North-		372			South:	372
			-West:	711			East-V		711				-West:	716		East	-West:	716
			Total:	1083			Т	otal:	1083				Total:	1088			Total:	1088
Volume/ca	apacity (<i>v/c</i>) ratio:			0.760					0.760					0.763				0.763
v/c less AT	SAC adjustment:			0.690					0.690					0.693				0.693
Level	of Service (LOS):			В					В					В				В
	· - ·				1					I		P R	O J F	ECT	IMPA	АСТ		
Filename:	K:\LDT_LDEV\99038001 Washi	naton & National Low		affic\Analysis\CM	Calc Forms\CMAC	alc Final Experie			C.	hange in	v/c due	to project:		0.003				0.003
	05-2007 by Ken Aitchis	-	- Documents/11	ame in nai y 515 (CIVI)		aic_1 mar_EX+P10			0	•		mpacted?		NO		mitigated?		N/A
201010000 200										Jigi	meanity	mpacicu:		NU	i uny	mugateu		11/71

<u> </u>		0011	EVUOT															
Intersecti			EXISTI				TED CUMUL					, WITH PF			2014, WI	TH TRAFF		
North/South Stre			Phases:		Ambient C		Critical F		-		jacent	<u>In</u>	<u>Out</u>	<u>Total</u>			Phases:	
Robertson Bly			apacity:		from:	2014		apacity:		Trip	AM	173	83	256			apacity:	
East/West Street		0	System:		to:	2014	Signal S	,		Gen 1	PM	127	174		Use Dist	•	System:	
Washington			luction:		at:	0.0%		luction:		Trip	AM	0	0	0			duction:	
Analysis Date:	10/29/2015	Opposed P	hasing:				Opposed Pl	hasing:		Gen 2	PM	0	0	0		Opposed I	Phasing:	
PM Peak:	5:00 PM	Counts Volume	Lanes	Lane Volume	+ Amb. Growth	+ Area Projects	= Total Volume	Lanes	Lane Volume		Project /olume	Total Volume	Lanes	Lane Volume	Adjusted Volume	Total Volume	Lanes	Lane Volume
Left آ ج			1	41		TTOJECIS		1	41	0%			1	41			1	<u>41</u>
under Street Lt-Th	N/B RTOR:	41	0	0	0		41	0	0	0%	0	41	0	0	0	41	0	0
	Existing: 0%		1	229				1	229	0%			1	229			1	229
L → Th-Rt	Projected: 0%	229	0	0	0		229	0	0	0%	0	229	0	0	0	229	0	0
	Mitigated: 0%		1	116				1	116	0%			1	116			1	116
Z ↔ Shared		116	O	0	0		116	0	0	0%	0	116	0	0	0	116	0	0
U L off			1	68				1	68	0%	_		1	68			1	68
0	S/B RTOR:	68	0	0	0		68	0	0	0%	0	68	0	0	0	68	0	0
Q ↓ Thru	Existing: 0%		1	135				1	135	0%			1	135			1	135
L ← Th-Rt	Projected: 0%	135	O	0	0		135	0	0	0%	0	135	0	0	0	135	0	0
	Mitigated: 0%		1	52				1	52	0%			1	52			1	52
Shared .	initigation ove	52	0	0	0		52	0	0	0%	0	52	0	0	0	52	0	0
J Left			1	85				1	85	0%			1	85			1	85
	E/B RTOR:	85	0	0	0		85	0	0	0%	0	85	0	0	0	85	O	0
$D \rightarrow Thru$	Existing: 50%		1	613				1	613	5%			1	616			1	616
tind tig → Th-Rt	Projected: 50%	1144	1	613	0		1144	1	613	0%	6	1150	1	616	0	1150	1	616
Right	Mitigated: 50%		0	013				0	0	0%			0	010			0	010
Shared	intiguted. 0070	82	0	0	0		82	0	0	0%	0	82	0	0	0	82	0	0
_ C Left			1	130				1	130	0%			1	130			1	130
Lt-Th	W/B RTOR:	130	0	0	0		130	0	0	0%	0	130	0	0	0	130	0	0
	Existing: 50%		2	436				2	436	0%			2	436			2	436
to the third of the third of the	Projected: 50%	871	0	0	0		871	0	00	0%	0	871	0	0	0	871	0	-50
	Mitigated: 50%		1	222				1	222	(5%)			1	231			1	231
Shared	intigated. 3070	256	0	0	0		256	0	0	0%	9	265	0	201	0	265	0	201
	(· ·						-	070		NL 0				N	· ·	-
Crit	tical Volumes:	North-		297			North-S		297			North-		297			South:	297
			West:	743				West:	743				-West:	746		East	-West:	746
			Total:	1040				Total:	1040				Total:	1043			Total:	1043
Volume/cap	pacity (<i>v/c</i>) ratio:			0.730					0.730					0.732				0.732
v/c less ATS	SAC adjustment:			0.660					0.660					0.662				0.662
Level o	of Service (LOS):			В					В					В				В
												<u>P</u> R	OJE	ЕСТ	IMPA	<u> </u>		
Filename: K	(:\LDT_LDEV\99038001 Washi	ington & National Lowe	Documents\Tr	affic\Analysis\CMA	ACalc Forms\CMAC	alc_Final_Ex+Pro			С	hange in	v/c due	to project:		0.002	$\Delta v/c$ after	mitigation:		0.002
	-2007 by Ken Aitchis	-		,						•		impacted?		NO		mitigated?		N/A
-											. ,				· · · ·	5		

Intersection No. 7	-	, EXISTI				TED CUMU					, WITH PF			2014, WI	TH TRAFF		
North/South Street:		Phases:		Ambient (Phases:			jacent	<u>In</u>	<u>Out</u>	<u>Total</u>			Phases:	
National Boulevard		apacity:		from:			apacity:		Trip	AM	173	83	256			apacity:	
East/West Street:	U	System:		to:	2014	U	System:		Gen 1	PM	127	174		Use Dist	0	System:	
Washington Boulevard		duction:		at:	0.0%		duction:		Trip	AM	0	0	0			duction:	
Analysis Date: 10/29/2015	Opposed F	Phasing:	0			Opposed F	Phasing:		Gen 2	PM	0	0	0		Opposed F	Phasing:	0
AM Peak: 8:00 AM	Counts	Lonco	Lane	+ Amb.	+ Area	= Total	Lonco	Lane		Project	= Total	Lanaa	Lane	Adjusted	Total	Lanaa	Lane
5 1-4	Volume	Lanes	Volume 117	Growth	Projects	Volume	Lanes	Volume 117	5%	/olume	Volume	Lanes 2	Volume 122	Volume	Volume	Lanes	Volume 122
\downarrow \downarrow Lt-Th <u>N/B RTOR:</u>	213	0	0	0		213	0		0%	8	221	2 0	122	0	221	0	122
		1	385				1	385	5%			1	390			1	390
C Thru Existing: 50%	668	1	385	0		668	1	385	0%	9	677		390	0	677		390
↓ Th-Rt Projected: 50% O Ø Pickt		1					1					1	390				
O C Right Mitigated: 50% ✓ Shared	102	0	0	0		102	0	0	0% 0%	0	102	0	0	0	102	0	0
		0	53				0	53	(15%)			0	61			<u> </u>	61
	97	2	53	0		97	2	53		13	110	2 0	01	0	110	2	10
S/B RTOR:		0	U U				0	0	0%				0			0	0
$\begin{array}{c c} & & \\ & &$	573	1	341	0		573	1	341	(10%)	9	582	1	350	0	582	1	350
Th-Rt Projected: 50%		1	341				1	341	0%			1	350			1	350
	109	0	0	0		109	0	0	5%	9	118	0	0	0	118	0	0
→ Shared		0	0				0	0	0%			0	0		-	0	0
Left	65	1	65	0		65	1	65	5%	9	74	1	74	0	74	1	74
$\begin{array}{ccc} & & \\ & &$		0	0				0	0	0%			0	0			0	0
$\overrightarrow{O} \rightarrow \text{Thru}$ Existing: 50%	862	2	431	0		862	2	431	0%	0	862	2	431	0	862	2	431
$\frac{1}{50}$ $$ Th-Rt Projected: 50%		0	0				0	0	0%			0	0			0	0
Right Mitigated: 50%	220	1	114	0		220	1	114	0%	0	220	1	110	0	220	1	110
		0	0				0	0	0%			0	0			0	0
□ C Left	142	1	142	0		142	1	142	0%	0	142	1	142	0	142	1	142
G ✓ Lt-Th <u>W/B RTOR:</u>	172	0	0	Ŭ		174	0	0	0%		172	0	0	· · · ·	174	0	0
Q ← Thru Existing: 0%	1081	2	400	0		1081	2	400	15%	26	1107	2	408	0	1107	2	408
Th-Rt Projected: 0%	1001	1	400	Ŭ		1001	1	400	0%	20	1107	1	408	U U	1107	1	408
^O ← Right Mitigated: 0%	118	0	0	0		118	0	0	0%	0	118	0	0	0	118	0	0
Shared	110	0	0	U		110	0	0	0%	U	110	0	0	U	110	0	0
Critical Volumes:	North-	-South:	458			North-	South:	458			North-	South:	472		North-	South:	472
	East	t-West:	573			East	-West:	573			East	-West:	573		East	-West:	573
		Total:	1031				Total:	1031				Total:	1045			Total:	1045
Volume/capacity (v/c) ratio:			0.750					0.750					0.760				0.760
v/c less ATSAC adjustment:			0.680					0.680					0.690				0.690
Level of Service (LOS):			В					В				0.1-	B				В
													<u> C T</u>	IMPA			
Filename: K:\LDT_LDEV\99038001 Wash	hington & National Low	ve\Documents\Tr	raffic\Analysis\CMA	Calc Forms\CMAC	alc_Final_Ex+Pro			С	•		to project:		0.010	$\Delta v/c$ after	0		0.010
Developed 2005-2007 by Ken Aitchi	son								Sign	ificantly	impacted?		NO	Fully	mitigated?		N/A

<u> </u>																		
Intersect			, EXISTI				TED CUMU					, WITH PF				TH TRAFF		
North/South Stre			Phases:		Ambient C			Phases:			acent	<u>In</u>	<u>Out</u>	<u>Total</u>			Phases: 4	-
National Bo			apacity:		from:			apacity:		Trip	AM	173	83	256			apacity: [•]	
East/West Stree	-	0	System:		to:	2014	U U	System:		Gen 1	PM	127	174	301	Use Dist	0	System: 2	
Washingtor			duction:		at:	0.0%		duction:		Trip	AM	0	0	0			duction:	-
Analysis Date:	10/29/2015	Opposed P	hasing:				Opposed I	Phasing:		Gen 2	PM	0	0	0		Opposed F	hasing: <mark>(</mark>	
PM Peak:	5:00 PM	Counts		Lane	+ Amb.	+ Area	= Total	1.0000	Lane		Project	Total	Lamaa	Lane	Adjusted	Total	امعمد	Lane
5 1 oft		Volume	Lanes	Volume 103	Growth	Projects	Volume	Lanes 2	Volume 103	5%	/olume	Volume	Lanes 2	Volume 106	Volume	Volume	Lanes	Volume 106
	N/B RTOR:	187	0	103	0		187	0	103	0%	6	193	2 L 0	001	0	193	0	100
			1	409				1	409	5%			1	413			1	413
G P Th-Rt	Existing: 50%	684		409	0		684	1	409	0%	7	691	1	413	0	691	1	413
	Projected: 50%			409				1	409	0%			0	413			1	413
D C Right C C Right C C Right Shared	Mitigated: 50%	134	0	0	0		134	0	0	0%	0	134	0	0	0	134	0	0
				100				0	100	(15%)			2	114			2	114
		182	2	100	0		182	2	100	(15%)	26	208	2	114	0	208		114
S ↓ Lt-Th	<u>S/B RTOR:</u>		0	U U				0	0				- r	0			0	0
pun ↓Lt-Th oqu th Thru th-Rt o ↓ Right	Existing: 50%	738	1	411	0		738	1	411	(10%)	18	756	1	423	0	756	1	423
th-Rt	Projected: 50%		1	411				1	411	0%			1	423	-		1	423
	Mitigated: 50%	83	0	0	0		83	0	0	5%	6	89	0	0	0	89	0	0
⁰⁷ ↔ Shared			0	0				0	0	0%			0	0			0	0
Left		82	1	82	0		82	1	82	5%	6	88	1	88	0	88	1	88
5	<u>E/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
or → Thru	Existing: 50%	1106	2	553	0		1106	2	553	0%	0	1106	2	553	0	1106	2	553
$\frac{d}{ds} \rightarrow \text{Th-Rt}$	Projected: 50%		0	0				0	0	0%			0	0			0	0
й Ш у Right	Mitigated: 50%	198	1	104	0		198	1	104	0%	0	198	1	102	0	198	1	102
		100	0	0			100	0	0	0%		100	0	0	· ·	100	0	0
← Left		114	1	114	0		114	1	114	0%	0	114	1	114	0	114	1	114
¬ • • • • • • • • • • • • • • • • •	W/B RTOR:	114	0	0	Ŭ		114	0	0	0%	<u> </u>	114	0	0		114	0	0
Q ← Thru	Existing: 0%	716	2	282	0		716	2	282	15%	19	735	2	288	0	735	2	288
to th-Rt	Projected: 0%	710	1	282	Ŭ		710	1	282	0%	13	700	1	288	U U	100	1	288
	Mitigated: 0%	129	0	0	0		129	0	0	0%	0	129	0	0	0	129	0	0
> Shared		129	0	0	U		123	0	0	0%	U	123	0	0	U	129	0	0
	itical Volumes:	North-	South:	513			North-	South:	513			North-	South:	529		North-	South:	529
_			-West:	667				-West:	667				-West:	667			-West:	667
			Total:	1180				Total:	1180				Total:	1196			Total:	1196
Volume/ca	pacity (<i>v/c</i>) ratio:			0.858					0.858					0.870				0.870
	SAC adjustment:			0.788					0.788					0.800				0.800
Level	of Service (LOS):			С					С					C				С
														<u>E C T</u>	IMPA			
Filename:	K:\LDT_LDEV\99038001 Washi	ington & National Lowe	e\Documents\Tr	affic\Analysis\CMA	Calc Forms\CMAC	alc_Final_Ex+Pro			С	•		to project:		0.012		0	(0.012
Developed 200	5-2007 by Ken Aitchis	son								Sign	ificantly	impacted?		NO	Fully	mitigated?		N/A

r															r			
	ion No. 8		, EXISTI				TED CUMULA			_		, WITH PF	ROJECT		2014, WI	TH TRAFF		
North/South Stre	eet:	Critical I	Phases:	2	Ambient C	<u>Frowth</u>	Critical Ph	nases:	2	L Ad	jacent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	2
Helms Aven	nue	Ca	apacity:	1500	from:	2014	Сар	acity:	1500	Trip	AM	173	83	256	-		apacity:	1500
East/West Stree	et:	Signal S	System:	2	to:	2014	Signal Sys	stem:	2	Gen 1	PM	127	174	301	Use Dist	21 Signal	System:	2
Washingtor	n Boulevard	v/c rec	luction:	7%	at:	0.0%	v/c redu	ction:	7%	Trip	AM	0	0	0		v/c ree	duction:	7%
Analysis Date:	10/29/2015	Opposed P	hasing:	0			Opposed Pha	asing:	0	Gen 2	PM	0	0	0		Opposed F	hasing:	0
AM Peak:	8:00 AM	Counts Volume	Lanes	Lane Volume	+ Amb. Growth	+ Area Projects	= Total Volume L	Lanes	Lane Volume		Project Volume	= Total Volume	Lanes	Lane Volume	Adjusted Volume	Total Volume	Lanes	Lane Volume
ວ້ Left		91	0	0	0		91	0	0	0%	0	91	0	0	0	91	0	0
p 1 Left Lt-Th oq ↑ Thru 4 Th-Rt o ← Right	N/B RTOR:	31	0	0	Ŭ		51	0	0	0%	•	51	0	0	U U	31	0	0
↑ Thru	Existing: 0%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
📮 ĥ Th-Rt	Projected: 0%	U	0	0	U		0	0	0	0%	U	U	0	0	U	0	0	0
	Mitigated: 0%	13	0	0	0		13	0	0	0%	0	13	0	0	0	13	0	0
∠ Shared		15	1	104	U		15	1	104	0%	U	15	1	104	U	15	1	104
Left		0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
Ğ ,≻Lt-Th	S/B RTOR:	0	0	0	0		0	0	0	0%	U	0	0	0	U	0	0	0
Pun bLt-Th Q ↓ Thru	Existing: 0%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
	Projected: 0%	0	0	0	0		0	0	0	0%	U	0	0	0	U	0	0	0
Right	Mitigated: 0%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
[∽] ↔ Shared		0	0	0	U		0	0	0	0%	U	0	0	0	0	0	0	0
J Left		0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
C → Lt-Th	E/B RTOR:	0	0	0	0		0	0	0	0%	U	U	0	0	U	0	0	0
$\begin{array}{c} \downarrow \downarrow \downarrow Lt-Th \\ \neg \downarrow Thru \\ \uparrow \downarrow Th-Rt \\ \hline \\ $	Existing: 0%	4004	1	509	0		1001	1	509	(15%)	13	4044	1	516	0	1011	1	516
⊖ Th-Rt	Projected: 0%	1001	1	509	0		1001	1	509	0%	13	1014	1	516	0	1014	1	516
Right	Mitigated: 0%	47	0	0	0		47	0	0	0%	•	47	0	0	0	47	0	0
Shared		17	0	0	0		17	0	0	0%	0	17	0	0	0	17	0	0
_ C Left		4.4	1	11			4.4	1	11	0%	0		1	11	0		1	11
pun ↓ Lt-Th oc Thru ts ↓ Th-Rt	W/B RTOR:	11	0	0	0		11	0	0	0%	0	11	0	0	0	11	0	0
g ← Thru	Existing: 0%	4007	2	654			4007	2	654	15%	20	4000	2	667	_	4000	2	667
ਹੋ ਨੂੰ ⊷ Th-Rt	Projected: 0%	1307	0	0	0		1307	0	0	0%	26	1333	0	0	0	1333	0	0
$\stackrel{0}{>}$ $\stackrel{1}{\sim}$ Right	Mitigated: 0%	~	0	0	0		0	0	0	0%	0	•	0	0	0	~	0	0
> Shared		0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
	itical Volumes:	North-	South:	104			North-So	outh:	104			North-	South:	104		North-	South:	104
			West:	654			East-V		654				-West:	667			-West:	667
			Total:	758				otal:	758				Total:	771			Total:	771
Volume/ca	pacity (<i>v/c</i>) ratio:			0.505				2.2.11	0.505					0.514				0.514
				0.435					0.303									0.444
	SAC adjustment:													0.444				
Level	of Service (LOS):			А					A			<u> </u>		<u>A</u>				A
									-					<u>E C T</u>	IMPA			
	K:\LDT_LDEV\99038001 Washi	-	e\Documents\Tr	raffic\Analysis\CMA	Calc Forms\CMAC	alc_Final_Ex+Pro			С			to project:		0.009		0		0.009
Developed 2008	5-2007 by Ken Aitchis	son								Sigr	nificantly	mpacted?		NO	Fully	mitigated?		N/A

					-													
Intersect	ion No. 8	2014,	EXISTI	NG	2014	PROJEC	TED CUMULA	TIVE	BASE			, WITH PF	ROJECT		2014, WI	TH TRAFF		GATION
North/South Stre	eet:	Critical F	Phases:	2	Ambient G	<u>Frowth</u>	Critical Pha	ases: 🕻	2	🛛 Adj	acent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	2
Helms Aven	nue	Ca	apacity:	1500	from:	2014	Capa	acity: 1	1500	Trip	AM	173	83	256	_		apacity:	1500
East/West Stree	et:	Signal S	System:	2	to:	2014	Signal Sys	tem: 🕻	2	Gen 1	PM	127	174	301	🗖 Use Dist	21 Signal	System:	2
Washingtor	n Boulevard	v/c red	luction:	7%	at:	0.0%	v/c reduc	tion:	7%	Trip	AM	0	0	0		v/c ree	duction:	7%
Analysis Date:	10/29/2015	Opposed P	hasing:	0			Opposed Phas	sing: (0	Gen 2	PM	0	0	0		Opposed F	hasing:	0
PM Peak:	5:00 PM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	Total		Lane	,	Total		Lane
	0.001 10	Volume	Lanes	Volume	Growth	Projects	Volume La	anes	Volume		/olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
<u>ר</u> ק Left		46	0	0	0		46	0	0	0%	0	46	0	0	0	46	0	0
ਤੂ ∱ Lt-Th	<u>N/B RTOR:</u>		0	0			-	0	0	0%		_	0	0			0	0
<u> </u>	Existing: 0%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
£ i≁Th-Rt	Projected: 0%		0	0				0	0	0%			0	0	Ŭ		0	0
	Mitigated: 0%	11	0	0	0		11	0_	0	0%	0	11	0	0	0	11	0_	0
[∠] ↔ Shared			1	57	•			1	57	0%	V		1	57	•		1	57
- −		0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
ן אינע באינע באינע אינע באינע בא	S/B RTOR:	U	0	0	U		0	0	0	0%	U	U	0	0	V	U	0	0
Puno ↓ Lt-Th oq ↓ Thru ↓ Th-Rt ↓ Right	Existing: 0%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
⊊ ⊷↓ Th-Rt	Projected: 0%	U	0	0	U		0	0	0	0%	U	0	0	0	U	U	0	0
Right ↓	Mitigated: 0%	~	0	0	0		0	0	0	0%	_	0	0	0	•	~	0	0
Shared		0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
J Left			0	0				0	0	0%	~		0	0	•		0	0
ਟ ∠ Lt-Th	E/B RTOR:	1	0	0	0		1	0	0	0%	0	1	0	0	0	1	0	0
$\begin{array}{c} \downarrow \downarrow Lt-Th \\ \neg \uparrow Thru \\ true \\ \uparrow Th-Rt \\ \downarrow \\ $	Existing: 0%		1	731				1	731	(15%)			1	744			1	744
⊕ to Th-Rt	Projected: 0%	1382	1	731	0		1382	1	731	0%	26	1408	1	744	0	1408	1	744
Se _⊥ → Right	Mitigated: 0%		0	0				0	0	0%			0	0			0	0
Generation Shared		80	Ő	Ő	0		80	Õ	0 0	0%	0	80	Ő	Ő	0	80	ŏ	Ő
Cloft			1	21				1	21	0%			1	21			1	21
	W/B RTOR:	21	0	0	0		21	0	0	0%	0	21	0	0	0	21	0	0
o ← Thru	Existing: 0%		2	443				2	443	15%			2	452			2	452
$ \begin{array}{c} 0 \leftarrow \text{Thru} \\ \text{dg} \leftarrow \text{Th-Rt} \\ \end{array} $	Projected: 0%	885	0	0	0		885	0	0	0%	19	904	0	-52	0	904	0	-02
(1) A	Mitigated: 0%		Ő	ŏ				Ő	0	0%			0	0			ŏ	0
Shared	Wittigated. 070	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	Ö	0
				`					•	0.0				`			•	
Cr	itical Volumes:	North-		57			North-So		57			North-		57		North-		57
			West:	752			East-W		752				-West:	765			-West:	765
		-	Total:	809			То	otal:	809				Total:	822			Total:	822
Volume/ca	pacity (<i>v/c</i>) ratio:			0.539					0.539					0.548				0.548
v/c less AT	SAC adjustment:			0.469					0.469					0.478				0.478
	of Service (LOS):			А					А					А				А
L	- (/-				1				7 \			PR	OJE	ECT	IMPA	АСТ		73
Filonomo		antes o Netland I	10	- (0-1 A 1 - 1 - 1 - 0 - 1	10.1. F				ſ	hange in	v/c due	to project:		0.009	$\Delta v/c$ after			0.009
	K:\LDT_LDEV\99038001 Washi 5-2007 by Ken Aitchis	-	Nuocuments\1r	amevanatysis/CMA	Calc Forms/CMAC	aic_FINAI_EX+Proj			C	•		impacted?		0.009 NO		0		N/A
Developed 200	5-2007 by Ken Altonis									Sign	incanny	impacted?		NO	Fully	mitigated?		IN/A

[-										1			
<u>Intersect</u>	tion No. 9	2014,	EXISTI	NG	2014	PROJEC	TED CUMULA	TIVE BAS	SE			, WITH PF	OJECT		2014, WI	TH TRAFF	IC MITI	GATION
North/South Stre	eet:	Critical F	Phases:	4	Ambient G	<u>irowth</u>	Critical Pha	ases: 4		🛛 Adj	acent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	4
Robertson E	Boulevard	Ca	apacity:	1375	from:	2014	Capa	ncity: 13	75	Trip	AM	173	83	256	-	С	apacity:	1375
East/West Stree	et:	Signal S	System:	3	to:	2014	Signal Sys	tem: 3		Gen 1	PM	127	174	301	🗖 Use Dist	21 Signal	System:	3
National Bo	oulevard	v/c red	luction:	10%	at:	0.0%	v/c reduc	tion: 10°	1%	Trip	AM	0	0	0		v/c re	duction:	10%
Analysis Date:	10/29/2015	Opposed P	hasing:	0			Opposed Phas	sing: <mark>0</mark>		Gen 2	PM	0	0	0		Opposed F	hasing:	0
AM Peak:	8:00 AM	Counts		Lane	+ Amb.	+ Area	= Total	\/	Lane		Project	= Total		Lane	Adjusted	Total		Lane
5 Loft		Volume	Lanes 1	Volume 45	Growin	Projects		anes Vo	/olume 45	0%	/olume	Volume	Lanes 1	Volume 45	Volume	Volume	Lanes	Volume 45
und Lt-Th	N/B RTOR:	45	0		0		45	0		0%	0	45	0		0	45	0	
	Existing: 50%		1	353				1	353	0%			1	357	-		1	357
G Innu G Irnu	Projected: 50%	634	1	353	0		634	1	353	0%	0	634	1	357	0	634	1	357
	Mitigated: 50%		0	0				0	0	5%			0	0			0	0
Z ↔ Shared	Miligated. 0070	72	0	0	0		72	0	0	0%	8	80	0	0	0	80	0	0
U left			2	256				2	256	10%			2	266			2	266
0	S/B RTOR:	465	0	0	0		465	0	0	0%	18	483	0	0	0	483	0	0
S ↓ Thru	Existing: 0%		1	516				1	516	0%			1	516			1	516
드 너 Th-Rt	Projected: 0%	911	1	516	0		911	1	516	0%	0	911	1	516	0	911	1	516
Th-Rt Right	Mitigated: 0%		0	0				0	0	0%	_		0	0		100	0	0
Shared ↔		120	Ő	0	0		120	0	0	0%	0	120	Ő	Ő	0	120	0	0
J Left		0.05	1	235			005	1	235	0%	~	005	1	235	•	005	2	129
C → Lt-Th	E/B RTOR:	235	0	0	0		235	0	0	0%	0	235	0	0	0	235	0	0
$\begin{array}{c} \text{punoq} \\ \text{punoq} \\ \text{states} \\ \text{Th-Rt} \\ \end{array}$	Existing: 0%	005	1	455			005	1	455	10%	40	000	1	464	_	000	1	464
⊕ → Th-Rt	Projected: 0%	665	1	455	0		665	1	455	0%	18	683	1	464	0	683	1	464
Right	Mitigated: 0%	045	0	0	0		045	0	0	0%	0	045	0	0	0	045	0	0
Generation Shared		245	0	0	0		245	0	0	0%	0	245	0	0	0	245	0	0
_ C Left		400	1	132	0		400	1	132	(5%)	4	400	1	136	0	400	1	136
trian contract of the second	W/B RTOR:	132	0	0	0		132	0	0	0%	4	136	0	0	U	136	0	0
od ← Thru	Existing: 75%	459	1	459	0		459	1	459	(15%)	13	472	1	472	0	472	1	472
ਤੋਂ ਨੇ Th-Rt	Projected: 75%	409	0	0	U		459	0	0	0%	13	472	0	0	U	472	0	0
	Mitigated: 75%	368	1	19	0		368	1	19	0%	0	368	1	6	0	368	1	6
> → Shared		300	0	0	0		300	0	0	0%	U	300	0	0	U	300	0	0
	ritical Volumes:	North-	South:	609			North-So	uth:	609			North-	South:	623		North-	South:	623
			West:	694			East-W		694				West:	707			-West:	601
			Total:	1303					1303				Total:	1330			Total:	1224
Volume/ca	apacity (<i>v/c</i>) ratio:			0.947					.947					0.967				0.890
	SAC adjustment:			0.847					.847					0.867				0.790
	of Service (LOS):			D.847					D.847					D.807				C
Lever				U					υ			חם	OJE	ECT		ЛСТ		U
										hanga in	ula dua			-				
	K:\LDT_LDEV\99038001 Washi	-	Nocuments\Tr	affic\Analysis\CM/	ACalc Forms\CMAC	alc_Final_Ex+Proj			U	•		to project:		0.020		0	-	0.057
Developed 2008	5-2007 by Ken Aitchis	son								Sign	ilicantiy I	mpacted?		YES	Fully	mitigated?		YES

	.			-								-	1			
Intersection No. 9	2014,	, EXISTI	NG	2014	, PROJEC	TED CUMULAT	IVE BASE			, WITH PF	ROJECT		2014, WI	TH TRAFF	IC MITI	GATION
North/South Street:	Critical I	Phases: •	4	Ambient C	<u>Growth</u>	Critical Phas	es: 4	🛛 Adj	acent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	4
Robertson Boulevard	Ca	apacity:	1375	from:	2014	Capac	ity: 1375	Trip	AM	173	83	256	-	С	apacity:	1375
East/West Street:	Signal S	System: 🕻	3	to:	2014	Signal Syste	em: 3	Gen 1	PM	127	174	301	🗖 Use Dist	21 Signal	System:	3
National Boulevard	v/c rec	duction:	10%	at:	0.0%	v/c reduction	on: 10%	Trip	AM	0	0	0		v/c re	duction:	10%
Analysis Date: 10/29/2015	Opposed P	'hasing: (0			Opposed Phasi	ng: O	Gen 2	PM	0	0	0		Opposed F	Phasing:	0
PM Peak: 5:00 PM	Counts Volume	Lanes	Lane Volume	+ Amb. Growth	+ Area Projects	= Total Volume Lar	Lane nes Volume		Project Olume	Total Volume	Lanes	Lane Volume	Adjusted Volume	Total Volume	Lanes	Lane Volume
って Left		1	41				1 41	0%			1	41			1	41
D Left U ↓ Lt-Th <u>N/B RTOR:</u> O ↑ Thru Existing: 50% U ↓ Th-Rt Projected: 50% O C Right Mitigated: 50%	41	0	0	0		41	0 0	0%	0	41	0	0	0	41	0	0
S Thru Existing: 50%	389	1	269	0		389	1 269	0%	0	389	1	272	0	389-	1	272
Th-Rt Projected: 50%	389	1	269	U		389	1 269	0%	U	389	1	272	0	389-	1	272
O C Right Mitigated: 50%	149	0	0	0		140	0 0	5%	6	155	0	0	0	155	0	0
✓ ↔ Shared	149	0	0	0		149	0 0	0%	0	155	0	0	U	100	0	0
- → Left	488	2	268	0		488	2 268	10%	13	501	2	276	0	501	2	276
G ↓ Lt-Th <u>S/B RTOR:</u> C ↓ Thru Existing: 0%	400	0	0	0		400	0 0	0%	13	501	0	0	U	501	0	0
○○○○○○○○○○	718	1	437	0		718	1 437	0%	0	718	1	437	0	718	1	437
H Th-Rt Projected: 0% ↓ Right Mitigated: 0%	110	1	437	U		710	1 437	0%	U	110	1	437	U	110	1	437
Right Mitigated: 0%	156	0	0	0		156	0 0	0%	0	156	0	0	0	156	0	0
⁽⁾ ↔ Shared	150	0	0	0		150	0 0	0%	U	150	0	0	U	150	0	0
Left	197	1	197	0		197	1 197	0%	0	197	1	197	0	197	2	108
$\stackrel{\circ}{\subseteq} \stackrel{\checkmark}{\rightarrow} \text{Lt-Th} = \frac{E/B \text{ RTOR:}}{E/B \text{ RTOR:}}$	197	0_	0	U		197	00	0%		197	0	0	U	197	0	0
$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \end{array}\end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ $	919	1	509	0		919	1 509		13	932	1	516	0	932	1	516
$\frac{1}{50}$ \rightarrow Th-Rt Projected: 0%	313	1	509	U U		313	1 509	0%	13	352	1	516	•	352	1	516
Right Mitigated: 0%	99	0	0	0		99	0 0	0%	0	99	0	0	0	99	0	0
Shared	33	0	0	Ŭ		33	0 0	0%	0	33	0	0		33	0	0
_ ← Left	126	1	126	0		126	1 126	(5%)	9	135	1	135	0	135	1	135
⊆ ⊊ t-Th <u>W/B RTOR:</u>	120	0	0	Ŭ		120	0 0			100	0	0		100	0	0
$\begin{array}{c c} & & & \\ & & \\ & & \\ & & \\ & & \\ & & \\$	311	1	311	0		311	1 311	(15%)	26	337	1	337	0	337	1	337
Th-Rt Projected: 75%	011	0	0	Ŭ		011	0 0	0%	20	007	0	0	, v	001	0	0
⁽ⁱ⁾ ← Right Mitigated: 75%	283	1	0	0		283	1 0	0%	0	283	1	0	0	283	1	0
Shared	200	0	0	, v		200	0 0	0%	•	200	0	0		200	0	0
Critical Volumes:	North-S	South:	537			North-Sou				North-	South:	548		North-	South:	548
	East	-West:	635			East-We	st: 635			East	-West:	651		East	-West:	651
	-	Total:	1172			Tot	al: 1172				Total:	1198			Total:	1198
Volume/capacity (v/c) ratio:			0.853				0.853					0.871				0.871
v/c less ATSAC adjustment:			0.753				0.753					0.771				0.771
Level of Service (LOS):			C				C					C				C
	L		U	L			U	L		Ρ₽	OJE	ECT	IMPA	АСТ		U
Filopomot	denter a bi di sta	10		A.I. F. 1011			r	hango in	v/c duat	to project:		0.018				0.018
Filename: K:\LDT_LDEV\99038001 Wash Developed 2005-2007 by Ken Aitchis	-	2)Uocuments\Tra	amcvanalysis\CM/	ACAIC FORMS\CMAC	aic_Final_Ex+Pro		C	•				NO		0		0.018 N/A
Developed 2005-2007 by Kell AllChis	5011							Sight	nicanuy I	mpacted?		NU	Fully	mitigated?		IN/A

	1			1					1								
Intersection No. 10	2014	, EXIST	ING			TED CUMU	JLATI VE	BASE	_		, WITH PF	ROJECT		2014, WI	TH TRAFF	IC MITIO	GATION
North/South Street:	Critical	Phases:	3	Ambient G	<u>Frowth</u>	Critical	Phases:	3	□ Ad	jacent	<u>In</u>	<u>Out</u>	<u>Total</u>			Phases:	-
National Boulevard	C	apacity:	1425	from:	2014	C	apacity:	1425	Trip	AM	173	83	256	_	С	apacity:	1425
East/West Street:	Signal	System:	3	to:	2014	Signal	System:	3	Gen 1	PM	127	174	301	🔲 Use Dist	21 Signal	System: 🕻	3
I-10 EB Ramp	v/c red	duction:	10%	at:	0.0%	v/c re	duction:	10%	Trip	AM	0	0	0		v/c ree	duction:	10%
Analysis Date: 10/29/2015	Opposed P	Phasing:	0			Opposed F	Phasing:	0	Gen 2	PM	0	0	0		Opposed F	hasing: (C
AM Peak: 8:00 AM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	= Total		Lane	Adjusted	Total		Lane
5 1-6	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume		Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
$\begin{array}{c} & & & \\$	32	1	32	0		32	I	32	(5%)	4	36	1	36	0	36	I L	36
Lt-Th <u>N/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
C 1 Thru Existing: 50%	807	2	404	0		807	2	404	(20%)	17	824	2	412	0	824	2	412
Th-Rt Projected: 50%		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
Shared		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
$\begin{array}{c c} & \text{SLET} \\ & \text{Undersonance} \\ & U$		0	0				0	0	0%			0	0			0	0
C Thru Existing: 50%	822	2	411	0		822	2	411	25%	44	866	2	433	0	866	2	433
Th-Rt Projected: 50%		0	0				0	0	0%			0	0			0	0
	423	1	423	0		423	1	423	0%	0	423	1	423	0	423	1	423
A Shared		0	0				0	0	0%	•		0	0	· ·		0	0
Left	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
$\begin{array}{c} \begin{array}{c} \label{eq:linearcond} \begin{tabular}{lllllllllllllllllllllllllllllllllll$, v	0	0	Ŭ		- V	0	0	0%		Ŭ	0	0	Ŭ	Ŭ	0	0
$\overrightarrow{O} \rightarrow \text{Thru}$ Existing: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
$\frac{1}{5}$ $$ Th-Rt Projected: 50%	U U	0	0	Ŭ		U U	0	0	0%		Ŭ	0	0	, v	Ŭ	0	0
Right Mitigated: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
✓ Shared	•	0	0			•	0	0	0%	0	v	0	0	· · ·	•	0	0
_ C Left	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
$\begin{array}{c} \begin{array}{c} & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & $	0	0	0	U U		U	0	0	0%	U	Ŭ	0	0	U U	Ŭ	0	0
o ← Thru Existing: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
$\frac{1}{5}$ $\stackrel{\bullet}{\leftarrow}$ Th-Rt Projected: 50%	0	0	0	U U		U	0	0	0%	U	Ŭ	0	0	U	Ŭ	0	0
Mitigated: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
Shared	U	0	0	U		U	0	0	0%	U	0	0	0	U	U	0	0
Critical Volumes:	North-	South:	455			North-	-South:	455			North-	South:	469		North-	South:	469
		-West:	0				-West:	0				-West:	0			-West:	0
		Total:	455				Total:	455				Total:	469			Total:	469
Volume/capacity (v/c) ratio:			0.319					0.319					0.329				0.329
v/c less ATSAC adjustment:			0.219					0.219					0.229				0.327
Level of Service (LOS):			A					A					A				A
													E C T	IMP			
Filename: K:\LDT_LDEV\99038001 Wash	-	e\Documents\T	raffic\Analysis\CMA	Calc Forms\CMAC	alc_Final_Ex+Pro			С	•		to project:		0.010		0	(0.010
Developed 2005-2007 by Ken Aitchi	ison								Sigr	nificantly	impacted?		NO	Fully	mitigated?		N/A

				-					1					r			
Intersection No. 10		, EXIST				TED CUMU			-		, WITH PF	ROJECT		2014, WI	TH TRAFF		
North/South Street:	Critical	Phases:	3	Ambient C	<u>Growth</u>	Critical	Phases:	3	Adj	acent	<u>In</u>	<u>Out</u>	<u>Total</u>			Phases:	-
National Boulevard	C	apacity:	1425	from:	2014	C	apacity:	1425	Trip	AM	173	83	256	-	С	apacity:	1425
East/West Street:	Signal	System:	3	to:	2014	Signal	System:	3	Gen 1	PM	127	174	301	🔲 Use Dist	2 Signal	System:	3
I-10 EB Ramp	v/c ree	duction:	10%	at:	0.0%	v/c red	duction:	10%	Trip	AM	0	0	0		v/c re	duction:	10%
Analysis Date: 10/29/2015	Opposed F	Phasing:	0			Opposed F	Phasing:	0	Gen 2	PM	0	0	0		Opposed F	Phasing:	0
PM Peak: 5:00 PM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	Total		Lane	Adjusted	Total		Lane
51-8	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume		/olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
C Right Lt-Th Lt-Th N/B RTOR: C ↑ Thru Existing: 50% Projected: 50% Mitigated: 50%	87	1	87	0		87	<u>'</u>	87	(5%)	9	96	1	96	0	96	<u>'</u> [96
String transformed by the second sec		0	0				0	0	0%			0	0			0	0
C 1 Thru Existing: 50%	714	2	357	0		714	2	357	(20%)	35	749	2	375	0	749	2	375
Th-Rt Projected: 50%		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
↔ Shared		0	0				0	0	0%			0	0			0	0
₽ [\] Left	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
S/B RTOR:		0	0				0	0	0%			0	0			0	0
$\begin{array}{c c} & \text{SLET} \\ & \text{Und} & \text{SLLT-Th} \\ & \text{S/B RTOR:} \\ & \text{Opt} & \text{Thru} \\ & \text{Existing: 50\%} \\ & \text{Und} & \text{Fright} \\ & \text{Projected: 50\%} \\ & \text{Opt} & \text{Right} \\ & \text{Mitigated: 50\%} \end{array}$	962	2	481	0		962	2	481	25%	32	994	2	497	0	994	2	497
Image: squareImage: squareProjected: 50%	001	0	0			002	0	0	0%			0	0	. · · ·		0	0
Right Mitigated: 50%	558	1	558	0		558	1	558	0%	0	558	1	558	0	558	1	558
A Shared	000	0	0			000	0	0	0%	v	000	0	0	U U	000	0	0
Left	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
$\begin{array}{ccc} & & \\ & &$	v	0	0	Ŭ		U U	0	0	0%	<u> </u>	0	0	0	U U	v	0	0
$\overrightarrow{O} \rightarrow \text{Thru}$ Existing: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
$\overrightarrow{H} \rightarrow Th-Rt$ Projected: 50%	v	0	0	Ŭ		U U	0	0	0%	U	0	0	0	U	0	0	0
Right Mitigated: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
Shared	0	0	0	0		U	0	0	0%	U	0	0	0	U	0	0	0
← Left	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
$\begin{array}{c} \begin{array}{c} & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & $	0	0	0	0		U	0	0	0%	U	0	0	0	U	0	0	0
Q ← Thru Existing: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
$\frac{1}{10}$ $\stackrel{\bullet}{\leftarrow}$ Th-Rt Projected: 50%	0	0	0	0		U	0	0	0%	U	0	0	0	0	0	0	0
Mitigated: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
> → Shared	0	0	0	0		0	0	0	0%	U	0	0	0	U	0	0	0
Critical Volumes:	North-	South:	645			North-	South.	645			North-	South:	654		North-	South:	654
		-West:	0				-West:	0				-West:	0			-West:	0
		Total:	645				Total:	645				Total:	654			Total:	654
Volume/capacity (v/c) ratio:		. otai.	0.453					0.453					0.459				0.459
v/c less ATSAC adjustment:			0.353					0.353					0.359				0.359
Level of Service (LOS):			Α					A					<u>A</u>	L			A
													ЕСТ	ΙΜΡΑ			
Filename: K:\LDT_LDEV\99038001 Wash	ington & National Low	ve\Documents\T	raffic\Analysis\CMA	ACalc Forms\CMAC	alc_Final_Ex+Pro	1		С	•		to project:		0.006	$\Delta v/c$ after	mitigation:	(0.006
Developed 2005-2007 by Ken Aitchis	son								Sign	ificantly	impacted?		NO	Fully	mitigated?		N/A

[1								
Intersect	<u>ion No. 11</u>	2014,	EXIST	ING	2014	PROJEC	TED CUMULATI	VE BASE			, WITH PF	ROJECT		2014, WI	TH TRAFF	CMITI	GATION
North/South Str	reet:	Critical F	Phases:	2	Ambient C	<u>Growth</u>	Critical Phase	es: 2		jacent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	2
Wesley Stre	eet	Ca	apacity:	1500	from:	2014	Capaci	ty: 1500	Trip	AM	173	83	256		С	apacity:	1500
East/West Stree	et:	Signal S	System:	2	to:	2014	Signal Syste	m: 2	Gen 1	PM	127	174	301	Use Dist	21 Signal	System:	2
National Bo	oulevard	v/c red	luction:	7%	at:	0.0%	v/c reduction	on: 7%	Trip	AM	0	0	0		v/c ree	duction:	7%
Analysis Date:	10/29/2015	Opposed P	hasing:	1			Opposed Phasir	ng: 1	Gen 2	PM	0	0	0		Opposed F	hasing:	1
AM Dook	8:00 AM	Counts		Lane	+ Amb.	+ Area	= Total	Lane	+	Project	= Total		Lane	Adjusted	Total		Lane
	0.00 AIVI	Volume	Lanes	Volume	Growth	Projects	Volume Lan			Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
Left رَح		123	0	0	0		123	0 0	0%	0	123	0	0	0	123	0	0
⊑ ┥ Lt-Th	<u>N/B RTOR:</u>		0	0				0 0	0%			0	0			0	0
pun turn pun turn pun turn pun turn t	Existing: 50%	0	0	0	0		0	0 0	0%	0	0	0	0	0	0	0	0
fr fr Th-Rt	Projected: 50%	Ŭ	0	0	Ŭ		Ŭ	0 0	0%		· · ·	0	0	- V	Ŭ	0	0
	Mitigated: 50%	76	0	0	0		76	00	0%	0	76	0	0	0	76	0	0
Z ↔ Shared		10	1	199	U U		10	1 199	0%	U	10	1	199	V	10	1	199
– – Left		0	0	0	0		0	0 0	0%	0	0	0	0	0	0	0	0
Ē ,⊳Lt-Th	S/B RTOR:	U	0	0	0		0	0 0	0%	U	0	0	0	U	U	0	0
pun bLt-Th Oq↓ Thru un d↓ Th-Rt o d↓ Right	Existing: 50%	0	0	0	0		0	0 0	0%	0	0	0	0	0	0	0	0
도 ←↓ Th-Rt	Projected: 50%	U	0	0	0		0	0 0	0%	U	0	0	0	U	U	0	0
Right	Mitigated: 50%	~	0	0			0	0 0	0%	_	0	0	0	~	~	0	0
[™] ↔ Shared		0	0	0	0		0	0 0	0%	0	0	0	0	0	0	0	0
J Left		•	0	0			•	0 0	0%	~	•	0	0	_	~	0	0
$\begin{array}{c} \downarrow \downarrow \downarrow Lt-Th \\ \neg \downarrow Thru \\ \uparrow \downarrow Th-Rt \\ \hline \\ \end{array}$	E/B RTOR:	0	0	0	0		0	0 0	0%	0	0	0	0	0	0	0	0
$\overrightarrow{O} \rightarrow \text{Thru}$	Existing: 50%		2	367			700	2 367	(10%)	_	740	2	371		- 10	2	371
to Th-Rt	Projected: 50%	733	0	0	0		733	0 0	0%	9	742	0	0	0	742	0	0
Right	Mitigated: 50%		1	143				1 143	0%	_		1	143			1	143
Shared		205	, O	0	0		205	0 0	0%	0	205	O	0	0	205	O	0
Cleft			1	40				1 40	0%			1	40			1	40
סיר בנות ביך Lt-Th	W/B RTOR:	40	0	0	0		40	0 0	0%	0	40	0	0	0	40	O	0
o ← Thru	Existing: 50%		2	421				2 421	10%			2	429			2	429
ts ← Th-Rt	Projected: 50%	841	0	0	0		841	0 0	0%	17	858	<u>_</u> [0	858		423
	Mitigated: 50%		0	0				0 0	0%			0	0			Ö	0
Shared Shared	Mitigated. 3078	0	0	0	0		0	0 0	0%	0	0	0	0	0	0	0	0
								· ·	070				`			•	100
Ci	ritical Volumes:	North-S		199			North-Sout					South:	199		North-		199
			West:	421			East-We					-West:	429			-West:	429
			Total:	620			Tota					Total:	628			Total:	628
Volume/ca	apacity (<i>v/c</i>) ratio:			0.413				0.413					0.419				0.419
v∕c less AT	SAC adjustment:			0.343				0.343					0.349				0.349
Level	of Service (LOS):			А				А					А				А
L	, ,				1			<i>,</i> ,	1		PR	2 O J E	ECT	IMPA	АСТ		
Filename:	K:\LDT_LDEV\99038001 Washi	ington 9 Notional I	Documento	roffic\Apple sisters		ale Final Fur Pro-		ſ	hange in	v/c due	to project:		0.006				0.006
	05-2007 by Ken Aitchis	-	NDOCUMEN(S\11	rame vanarysis (CIMA	NUTION FORMAC	aic_rillal_Ex+Pf0			•		impacted?		NO		mitigated?		N/A
Developed 200	J-2007 by Nen AllChis								Sign	meanity	inpacted?		NO	Fully	milyaleu?		IN/A

					-									-	1			
Intersect	ion No. 11	2014,	EXIST	ING	2014	PROJEC	TED CUMULA	tive e	BASE			, WITH PF	ROJECT		2014, WI	TH TRAFF	IC MITI	GATION
North/South St	reet:	Critical F	Phases:	2	Ambient C	<u>Growth</u>	Critical Pha	ases: 2	2	Ad Ad	jacent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	2
Wesley Str	eet	Ca	apacity:	1500	from:	2014	Capa	acity: <mark>1</mark>	500	Trip	AM	173	83	256		С	apacity:	1500
East/West Stree	et:	Signal S	System:	2	to:	2014	Signal Sys	tem: 2	2	Gen 1	PM	127	174	301	Use Dist	21 Signal	System:	2
National Bo	oulevard	v/c red	luction:	7%	at:	0.0%	v/c reduc	tion: 7	1%	Trip	AM	0	0	0		v/c ree	duction:	7%
Analysis Date:	10/29/2015	Opposed P	hasing:	1			Opposed Phas	sing: 1		Gen 2	PM	0	0	0		Opposed F	hasing:	1
PM Peak:	5:30 PM	Counts		Lane	+ Amb.	+ Area	= Total		Lane	+	Project	Total		Lane	Adjusted	Total		Lane
	0.00110	Volume	Lanes	Volume	Growth	Projects	Volume La		Volume		Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
Left		75	0	0	0		75	0	0	0%	0	75	0	0	0	75	0	0
p 1 Left un ↓ Lt-Th oq ↑ Thru un ↓ Th-Rt o ← Right	<u>N/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
<u> </u>	Existing: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
f fr Th-Rt	Projected: 50%	, in the second s	0	0	Ŭ		Ŭ	0	0	0%		Ŭ	0	0	· · · ·	Ŭ	0	0
	Mitigated: 50%	15	0	0	0		15	0_	0	0%	0	15	0	0	0	15	0	0
∠ ↔ Shared		10	1	90	•		10	1	90	0%	U	10	1	90	U	10	1	90
-o └→Left		0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
Ē ,⊳Lt-Th	S/B RTOR:	U	0	0	U		0	0	0	0%	U	0	0	0	U	U	0	0
Pun o ↓ Thru o ↓ Thru thru thru v Right	Existing: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
⊊ ⊷ Th-Rt	Projected: 50%	U	0	0	0		U	0	0	0%	U	0	0	0	U	0	0	0
Right	Mitigated: 50%	_	0	0			0	0	0	0%	•	0	0	0	•		0	0
[™] ↔ Shared		0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
ノ Left			0	0			•	0	0	0%	_	-	0	0	_		0	0
$\begin{array}{c} \downarrow \downarrow \downarrow Lt-Th \\ 0 \rightarrow Thru \\ true Thrue \\ Th-Rt \\ true \\ There \\ true \\ There \\ true \\ There \\ true \\ tr$	E/B RTOR:	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
$\overline{D} \rightarrow \text{Thru}$	Existing: 50%		2	482				2	482	(10%)	4.0		2	491			2	491
to Th-Rt	Projected: 50%	963	0	0	0		963	0	0	0%	18	981	0	0	0	981	0	0
Right	Mitigated: 50%		1	40				1	40	0%			1	40			1	40
$\stackrel{\text{III}}{\leftarrow}$ Shared		78	0	0	0		78	0	0	0%	0	78	0	0	0	78	Ó	0
Cleft			1	9				1	9	0%			1	9			1	9
p ↓ Lt-Th	W/B RTOR:	9	0	0	0		9	0	0	0%	0	9	0	0	0	9	0	0
o ← Thru	Existing: 50%		2	466				2	466	10%			2	473			2	473
to the	Projected: 50%	932	0	00+	0		932	0	00+	0%	13	945	0	0	0	945	0	0
$A \rightarrow A$ Right	Mitigated: 50%		0	0				0	0	0%			0	0			0	0
Shared Shared	Wittigated. 5076	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
									•	070		N. 4				N 1	U	•
C	ritical Volumes:	North-		90			North-So		90			North-		90		North-		90
			West:	491			East-W		491				-West:	500			-West:	500
			Total:	581			То	otal:	581				Total:	590			Total:	590
Volume/ca	apacity (<i>v/c</i>) ratio:			0.387					0.387					0.393				0.393
v/c less A	TSAC adjustment:			0.317					0.317					0.323				0.323
Level	of Service (LOS):			А					А					А				А
L	· /			- •	1							PR	OJE	ECT	IMPA	АСТ		
Filename:	K:\LDT_LDEV\99038001 Washi	ington 9 National Laws	DocumontelT	roffic\Applucic\CAU		ale Final ExcDre			C	hange in	v/c due	to project:		0.006				0.006
	05-2007 by Ken Aitchis	-	NDOCUMEN(S\11	rame vanarysis (CIMA	NUTION FOR FOR SUCCESSION AC	aic_rillal_Ex+Pf0			0	•		impacted?		NO		mitigated?		N/A
Developed 200	JJ-2007 by Ken AllChis	5011								Sigi	mulanity	inpacted?		NO	Fully	muyated?		IN/A

					-										1			
Intersecti	on No. 12	2014,	EXISTI	NG	2014	PROJEC	TED CUMU	LATIVE	BASE			, WITH PF	ROJECT		2014, WI	TH TRAFF	IC MITI	GATION
North/South Stre	eet:	Critical I	Phases: 4	4	Ambient C	<u>Growth</u>	Critical	Phases:	4	Ad D	jacent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	4
La Cienega	Boulevard	Ca	apacity:	1375	from:	2014	C	apacity:	1375	Trip	AM	173	83	256		C	apacity:	1375
East/West Street	t:	Signal S	System: 🕻	3	to:	2014	Signal S	System:	3	Gen 1	PM	127	174	301	Use Dist	2' Signal	System:	3
Venice Boul	levard	v/c red	luction:	10%	at:	1.0%	v/c red	duction:	10%	Trip	AM	0	0	0		v/c re	duction:	10%
Analysis Date:	10/29/2015	Opposed P	hasing: (0			Opposed F	hasing:	0	Gen 2	PM	0	0	0		Opposed I	Phasing:	0
AM Peak:	8:00 AM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	= Total		Lane	Adjusted	Total		Lane
5 Loft		Volume	Lanes	Volume 165	Growth	Projects	Volume	Lanes	Volume 165	0%	/olume	Volume	Lanes	Volume 165	Volume	Volume	Lanes	Volume 165
G ↓ Lent	N/B RTOR:	165	0	103	0		165	0	0	0%	0	165	0 0	0	0	165	0	105
	Existing: 75%		2	552				2	552	0%			2	552			2	552
G PTh-Rt	Projected: 75%	1603	1	552	0		1603	1	552	0%	0	1603	1	552	0	1603	1	552
C ·	Mitigated: 75%		0	0				0	0	0%			0	0			1	0
Z ↔ Shared	Mittigated. 7578	54	0	0	0		54	0	0	0%	0	54	0	0	0	54	0	0
			1	56				1	56	0%			1	56			1	56
G SLent	<u>S/B RTOR:</u>	56	0	0	0		56	0	0	0%	0	56	0	0	0	56	0	0
	Existing: 50%		2	458				 ວ[458	0%			2	464			2	464
	Projected: 50%	1089	1	458	0		1089	2	458	0%	0	1089	2	464	0	1089	2	464
<u> </u>	Mitigated: 50%		0	430				0	430	10%			0	404			0	404
Shared 0	wittigated. 50%	286	0	0	0		286	0	0	0%	18	304	0	0	0	304	0	0
→ Left			2	172				2	172	(10%)			2	177			2	177
	E/B RTOR:	312	2	0	0		312	2 L 0	0	0%	9	321	2 L 0	0	0	321	2 [0	0
5	Existing: 50%		3	376				3	376	(5%)			3	378			3	378
tin Th-Rt	Projected: 50%	1129	0	0	0		1129	0	370	(3%)	4	1133	0	378 0	0	1133	0	370
	Mitigated: 50%		1	33				1	33	0%			1	33			1	33
\rightarrow Shared	Mittigated. 5078	115	0	0	0		115	0	0	0%	0	115	0	0	0	115	0	0
*			1	182				1	182	0%			1	182			1	182
v C Left	W/B RTOR:	182	0	0	0		182	0	0	0%	0	182	0	0	0	182	0	0
_	Existing: 50%		3	425				3	425	5%			3	428			3	428
to think to the	Projected: 50%	1275	0 0	423	0		1275	0 0	<u>423</u>	0%	8	1283	0 0	420	0	1283	0 0	420
	Mitigated: 50%		1	49				1	49	0%			1	49			1	49
Shared	Mittigated. 5078	77	0	49	0		77	0	49 0	0%	0	77	0	49 0	0	77	0	49
							N1 41			070		N		-		N	•	· · ·
Cri	itical Volumes:	North-		623			North-		623			North-		629			South:	629
			West:	597				-West:	597				-West:	604		East	-West:	604
			Total:	1220				Total:	1220				Total:	1234			Total:	1234
Volume/ca	pacity (<i>v/c</i>) ratio:			0.887					0.887					0.897				0.897
v/c less AT	SAC adjustment:			0.787					0.787					0.797				0.797
Level of	of Service (LOS):			С					С					С				С
												<u>P</u> R	OJE	ЕСТ	IMPA	ACT		
Filename:	K:\LDT_LDEV\99038001 Washi	ington & National Lowe) Documents\Tra	affic\Analysis\CM/	ACalc Forms\CMAC	alc_Final_Ex+Pro			С	hange in	v/c due	to project:		0.010	$\Delta v/c$ after	mitigation:		0.010
	5-2007 by Ken Aitchis	-		-						•		mpacted?		NO		mitigated?		N/A
										5	,	•		-	,	0		

Intercent	ion No. 12	2014	, EXISTI		2014				DACE		2014				2014 14/1			CATION
North/South St			Phases:		Ambient G		TED CUMULA Critical Ph			🗆 Adj		, WITH PF <u>In</u>	<u>Out</u>	Total	2014, 101	TH TRAFF	Phases:	
La Cienega			apacity:		from:			ases.		Trip	AM	173	83	256			apacity:	
East/West Stree			System:		to:	2014	Signal Sy	,		Gen 1	PM	173	174	301	Use Dist		System:	
Venice Bou		0	duction:		at:	1.0%	v/c redu			Trip	AM	0	0	0	LOSC Dist	0	duction:	
	10/29/2015	Opposed P			di		Opposed Pha			Gen 2	PM	0	0	0		Opposed		
3		Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	Total		Lane	Adjusted	Total		Lane
PM Peak:	5.00 FIVI	Volume	Lanes	Volume	Growth	Projects	Volume L	Lanes	Volume		/olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
Left בָּ		70	1	70	0		70	1	70	0%	0	70	1	70	0	70	1	70
pun Left Lt-Th og ↑ Thru thru thru thru crimet	<u>N/B RTOR:</u>		0	0				0	0	0%			0	0		-	0	0
	Existing: 75%	1006	2	349	0		1006	2	349	0%	0	1006	2	349	0	1006	2	349
fr fr Th-Rt	Projected: 75%		1	349				1	349	0%			1	349			1	349
	Mitigated: 75%	40	0	0	0		40	0	0	0%	0	40	0	0	0	40	0	0
[∠] ↔ Shared			1	<u>0</u> 63				0	63	0% 0%			<u> </u>	0 63			1	63
□ S Leit	S/B RTOR:	63	0	03	0		63	0	03	0%	0	63	0	03	0	63	0	03
pun \downarrow Lt-Th oquin \downarrow Thru un \downarrow Th-Rt o → Right	Existing: 50%		2	492				2	492	0%			2	496			2	496
G ↓ Third L ← Th-Rt	Projected: 50%	1240	1	492	0		1240	1	492	0%	0	1240	2	490	0	1240	1	490
To → Right	Mitigated: 50%		0	492				0	492	10%			ין 0	430			0	430
Shared	Wittigated. 5070	235	0	0	0		235	0	0	0%	13	248	0	0	0	248	0	0
→ Left			2	161				2	161	(10%)			2	171			2	171
	E/B RTOR:	293	0	0	0		293	0	0	0%	18	311	0	0	0	311	0	0
$\begin{array}{c} p \not \rightarrow Lt-Th \\ o \not \rightarrow Thru \\ f_{S} \not \rightarrow Th-Rt \end{array}$	Existing: 50%	4.450	3	485			4.450	3	485	(5%)	_		3	488	_		3	488
to Th-Rt	Projected: 50%	1456	0	0	0		1456	0	0	0%	8	1464	0	0	0	1464	0	0
Right	Mitigated: 50%	1.10	1	107			4.40	1	107	0%		4.40	1	107	0	4.40	1	107
Generation Shared		142	0	0	0		142	0	0	0%	0	142	0	0	0	142	0	0
C Left		400	1	186	0		400	1	186	0%	0	400	1	186	0	400	1	186
$\begin{array}{c} \downarrow \\ \downarrow $	W/B RTOR:	186	0	0	U		186	0	0	0%	0	186	0	0	0	186	0	0
od ← Thru	Existing: 50%	984	3	328	0		984	3	328	5%	6	990	3	330	0	990	3	330
ੋਂ ਨੂੰ ← Th-Rt	Projected: 50%	904	0	0	0		904	0	0	0%	0	990	0	0	0	990	0	0
Ö ← Right	Mitigated: 50%	56	1	24	0		56	1	24	0%	0	56	1	24	0	56	1	24
> → Shared		50	0	0	0		50	0	0	0%	U	50	0	0	U	50	0	0
С	ritical Volumes:	North-	South:	562			North-So	outh:	562			North-	South:	566		North	South:	566
		East	-West:	671			East-V	Vest:	671			East	-West:	674		East	-West:	674
			Total:	1233			Т	otal:	1233				Total:	1240			Total:	1240
Volume/ca	apacity (<i>v/c</i>) ratio:			0.897					0.897					0.902				0.902
	TSAC adjustment:			0.797					0.797					0.802				0.802
	of Service (LOS):			C					C					D.002				D.002
2000				U					U	1		Ρ₽	OJE	ECT		АСТ		υ
Filonome		la stan û National I	10		0.1.5	de Fleid For P			C	hange in	v/c due	to project:		0.005	$\Delta v/c$ after			0.005
Filename:	K:\LDT_LDEV\99038001 Wash	-	e\Documents\1r	ramc\Analysis\CMA	ACAIC FORMS\CMAC	aic_Final_Ex+Pro			C	•		impacted?		0.005 NO		mitigated?		N/A
Developed 200	So 2007 by Nen Altonic									Sight	meanity	inipacieu (NO	i uny	muyateu?		IN/A

· · · · · ·																		
	ion No. 13		, EXISTI				TED CUMU					, WITH PF				TH TRAFF		
North/South Str			Phases:		Ambient C			Phases:			jacent	<u>In</u>	<u>Out</u>	<u>Total</u>			Phases:	
Fairfax Blvo			apacity:		from:			apacity:		Trip	AM	173	83	256			apacity:	
East/West Stree	-	Ũ	System:		to:	2014	0	System:		Gen 1	PM	127	174		Use Dist	0	System:	
Washingtor			duction:		at:	1.0%		duction:		Trip	AM	0	0	0			duction:	
Analysis Date:	10/29/2015	Opposed P	hasing:				Opposed P	hasing:		Gen 2	PM	0	0	0		Opposed F	hasing:	
AM Peak:	8:00 AM	Counts Volume	Lanes	Lane Volume	+ Amb. Growth	+ Area Projects	= Total Volume	Lanes	Lane Volume		Project /olume	= Total Volume	Lanes	Lane Volume	Adjusted Volume	Total Volume	Lanes	Lane Volume
Left			1	21	Growth	FIUJECIS		<u>Lanes</u>	21	0%			1	21			1	21
Pun ↓ Lt-Th oq ↓ Thru ↓ Th-Rt o ← Right	N/B RTOR:	21	0		0		21	0		0%	0	21	0		0	21	0	
S ↑ Thru	Existing: 75%		2	452				2	452	0%			2	452			2	452
G P Th-Rt	Projected: 75%	904		0	0		904	0		0%	0	904	0		0	904		
$\underline{C} \cap Right$	Mitigated: 75%		1	106				1	106	0%			1	106			1	106
Z ↔ Shared	Willigated. 7570	375	0	100	0		375	0	100	0%	0	375	0	100	0	375		100
L. Loft			2	89				2	89	0%			2	89			2	89
0	S/B RTOR:	162	0	03	0		162	0	03	0%	0	162	0	03	0	162	2 0	03
S ↓ Thru	Existing: 50%		1	357				1	357	0%			1	362			1	362
G ↓ Thru L ↓ Th-Rt	Projected: 50%	674	1	357	0		674	1	357	0%	0	674	1	362	0	674	1	362
	Mitigated: 50%		0	0				0	0	5%			0	0			0	502
(A)	Wittigateu. 5076	40	0	0	0		40	0	0	0%	9	49	0	0	0	49	0	0
			1	62				1	62	(5%)			1	66			1	66
Lon	E/B RTOR:	62		02	0		62	ין 0	02	(3%)	4	66	0	00	0	66	0	00
			0 2	163				2	163	(10%)				166			2	166
$\vec{O} \rightarrow \text{Thru}$	Existing: 50%	478	2	163	0		478	2	163	0%	9	487	2 1	166	0	487	2	166
$T_{S} \rightarrow Th-Rt$	Projected: 50%		1					1					-				1	
	Mitigated: 50%	12	0	0	0		12	0	0	0%	0	12	0	0	0	12	0	0
→ Shared			0	0				0	0	0%			0	0			0	0
ס < Left		359	2	197	0		359	2	197	0%	0	359	2	197	0	359	2	197
D ↓ Lent Lt-Th	W/B RTOR:		0 0	0				0 0	0	0%			0	0			0 0	0
Thru to control to the	Existing: 50%	971	2	486	0		971	2	486	10%	17	988	2	494	0	988	2	494
$\frac{1}{10}$ $\frac{1}{10}$ Th-Rt	Projected: 50%		0	0				0	0	0%			0	0			0	0
	Mitigated: 50%	104	1	23	0		104	1	23	0%	0	104	1	23	0	104	1	23
> → Shared			0	0				0	0	0%			0	0			0	0
Cr	itical Volumes:	North-		541			North-		541				South:	541		North-		541
		East	-West:	548			East	-West:	548				-West:	560			-West:	560
			Total:	1089				Total:	1089				Total:	1101			Total:	1101
Volume/ca	apacity (<i>v/c</i>) ratio:			0.792					0.792					0.801				0.801
v∕c less AT	SAC adjustment:			0.692					0.692					0.701				0.701
	of Service (LOS):			B					B					C				C
20701				U					U	I		DD		-		АСТ		0
Filesene									C	hango in	v/c due	to project:		0.009	$\Delta v/c$ after			0.009
Filename:	K:\LDT_LDEV\99038001 Wash 5-2007 by Ken Aitchis	-	e\Documents\Tr	ramcvanalysis\CMA	Calc Forms\CMAC	aic_Final_Ex+Pro			C	•		impacted?		0.009 NO		0		0.009 N/A
Developed 200	5-2007 by Ken AltChis									Sign	mulatility	inpacteu?		NO	Fully	mitigated?		N/A

				-				1			_				
Intersection No. 13	2014	, EXISTI	ING	2014	, PROJEC	TED CUMULATI	VE BASE			H PROJECT		2014, WI	TH TRAFF		GATION
North/South Street:	Critical	Phases:	4	Ambient (<u>Growth</u>	Critical Phase	es: 4	Adjad	cent	<u>In Out</u>			Critical	Phases:	4
Fairfax Blvd	С	apacity:	1375	from:	2014	Capacit	y: 1375	Trip 🖌	AM 1	73 83	256		С	apacity:	1375
East/West Street:	Signal	System:	3	to:	2014	Signal Syster	n: 3	Gen 1 🛛 🖡	PM 1	27 174	301	Use Dist	21 Signal	System:	3
Washington Blvd	v/c re	duction:	10%	at:	1.0%	v/c reductio	n: 10%	Trip 🖌	AM	0 0	0		v/c re	duction:	10%
Analysis Date: 10/29/2015	Opposed F	Phasing:	0			Opposed Phasin	g: 0	Gen 2 🛛 🖡	PM	0 0	0		Opposed F	hasing:	0
PM Peak: 5:00 PM	Counts		Lane	+ Amb.	+ Area	= Total	Lane	+ Pro	2	otal	Lane	2	Total		Lane
	Volume	Lanes	Volume	Growth	Projects	Volume Lan			ume Volu	ume Lanes			Volume	Lanes	Volume
eft ري Left	- 5	1	5	0		5	1 5	0%	0	5 1	5	0	5	1	5
Lt-Th <u>N/B RTOR:</u>	_	0	0				0 0	0%		0	-			0	0
C Right Left <u>N/B RTOR:</u> N/B RTOR: N/B RTOR: N/B RTOR: Existing: 75% Projected: 75% Mitigated: 75%	797	2	399	0		797	2 399	0%	0 7	97 2		0	797	2	399
Image: Frequencies Projected: 75%		0	0				0 0	0%	<u> </u>	0				0	0
	623	1	419	0		623	1 419	0%	0 6	523 1	419	0	623	1	419
∠ ↔ Shared	020	0	0			020	0 0	0%	0	0		_	020	0	0
- → Left	- 316	2	174	0		316	2 174	0%	0 3	²	174	0	316	2	174
Un ↓-Lt-Th S/B RTOR: OG ↓ Thru Existing: 50% Un ↓ Th-Rt Projected: 50% O ↓ Right Mitigated: 50%	510	0	0	0		510	0 0	0%	U J	0	0	U	310	0	0
S ↓ Thru Existing: 50%	606	1	349	0		606	1 349	0%	0	1	352	0	606	1	352
Th-Rt Projected: 50%	606	1	349	0		606	1 349	0%	0 6	506 ¹ 1	352	0	606	1	352
Right Mitigated: 50%		0	0				0 0	5%	_	07 0			~	0	0
v ↔ Shared	91	0	0	0		91	0 0	0%	6	97 <mark>0</mark>		0	97	0	0
J left		1	78				1 78			1	86			1	86
$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \end{array}\end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \\ \end{array}\end{array} \\ \begin{array}{c} \\ \end{array} \\ \begin{array}{c} \\ \end{array}\end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} $	- 78	0 0	0	0		78	0 0	0%	8	86 0		0	86	O	0
$\overrightarrow{O} \rightarrow \text{Thru}$ Existing: 50%		2	300				2 300	(100/)		2	_			2	306
$\frac{1}{10} \xrightarrow{1}{7} \text{Th-Rt} \qquad \frac{1}{10} \text{Projected: 50\%}$	888	1	300	- 0		888	1 300	0%	18 9	906 <u>2</u> 1	306		906	1	306
S TII-Rt Projected: 50%			<u> </u>					0%		· · 0				0	300
Right Mitigated: 50%	12	0	0	0		12	0 0		0	12 ~	•	0	12		0
		0	v				0 0	0%		<u>12</u> 0				0	450
v ← Left	- 272	2	150	- 0		272	2 150	-	0 2	272 2			272	2	150
$\stackrel{\sim}{\subseteq}$ $\stackrel{\leftarrow}{\longrightarrow}$ Lt-Th <u>W/B RTOR:</u>		0	0				0 0			0				0	0
$O \leftarrow Thru$ Existing: 50%	517	2	259	0		517	2 259		13 5	30 2			530	2	265
Th-Rt Projected: 50%		0	0			• • • •	0 0	0%		0 0	0			0	0
	55	1	0	0		55	1 0	0%	0	55 1	0	0	55	1	0
Shared	00	0	0			00	0 0	0%	<u> </u>	00000	0		00	0	0
Critical Volume	s: North-	South:	593			North-Sout	h: 593		N	orth-South:	593		North-	South:	593
	East	-West:	450			East-Wes				East-West:				-West:	456
		Total:	1042			Tota				Total:				Total:	1048
Volume/capacity (v/c) rat		. otal.	0.758			1010	0.758			rotal.	0.762				0.762
v/c less ATSAC adjustme			0.658				0.658				0.662				0.662
Level of Service (LOS	S):		В				В				В				В
										<u>P R O J</u>	ЕСТ	ΙΜΡΛ	<u> </u>		
Filename: K:\LDT_LDEV\99038001 \	Vashington & National Low	e\Documents\Tr	raffic\Analysis\CM/	ACalc Forms\CMAC	Calc_Final_Ex+Pro		C	hange in v/a	c due to proj	ject:	0.004	$\Delta v/c$ after	mitigation:		0.004
Developed 2005-2007 by Ken Ait	chison							Signific	antly impact	ted?	NO	Fully	mitigated?		N/A
								-				3	•		

r					r				1					1			
Intersect	<u>ion No. 14</u>	-	EXISTI				TED CUMULATI				, WITH PF	ROJECT		2014, WI	TH TRAFF		
North/South St		Critical I	Phases:	4	Ambient C		Critical Phase	s: 4	L Adj	acent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	4
Jefferson E	Blvd	Ca	apacity:	1375	from:	2014		y: 1375	Trip	AM	173	83	256			apacity:	
East/West Stree	et:	Signal S	System:	3	to:	2014	Signal Syster	n: 3	Gen 1	PM	127	174	301	Use Dist	2' Signal	System:	3
National Bl	vd	v/c red	luction:	10%	at:	1.0%	v/c reduction	n: 10%	Trip	AM	0	0	0		v/c re	duction:	10%
Analysis Date:	10/29/2015	Opposed P	hasing:	2			Opposed Phasing	g: 2	Gen 2	PM	0	0	0		Opposed I	Phasing:	2
AM Peak:	8:00 AM	Counts		Lane	+ Amb.	+ Area	= Total	Lane		Project	= Total		Lane	5	Total		Lane
	0.00 / 111	Volume	Lanes	Volume	Growth	Projects	Volume Lane			/olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
		315	1	315	0		315	1 <u>315</u>	5% 0%	9	324	1	324	0	324	I L	324
Lt-Th	<u>N/B RTOR:</u>		0	0				0 0				0	0			0	0
	Existing: 75%	709	2	355	0		709	2 355	0%	0	709	2	355	0	709	2	355
p ↓ Left Lt-Th oq ↑ Thru ↓ ↑ Th-Rt o ← Right	Projected: 75%		0	0				0 0	0%			0	0			0	0
	Mitigated: 75%	26	1	25	0		26	1 25	0%	0	26	1	25	0	26	1	25
Shared			0	0				0 0	0%			0	0			0	0
₽ [↓] Left		5	1	5	0		5	15		0	5	1	5	0	5	1	5
Lt-Th	<u>S/B RTOR:</u>	Ŭ	0	0			Ŭ	00	0%		Ŭ	0	0		Ŭ	0	0
puno↓Lt-Th oq↓Thru utrov Th-Rt ov Right	Existing: 50%	808	1	808	0		808	1 808	0%	0	808	1	808	0	808	1	808
ਦ੍ਰ ⊷ Th-Rt	Projected: 50%	000	0	0	•		000	0 0	0%	•	000	0	0	- V	000	0	0
Right لم 👸	Mitigated: 50%	703	1	567	0		703	1 567	5%	8	711	1	573	0	711	1	573
↔Shared		705	0	0	V		105	0 0	0%	0	/ ! !	0	0	U	())	0	0
_ J Left		272	1	150	0		272	1 150	(5%)	4	276	1	152	0	276	1	152
⊆ - → Lt-Th	E/B RTOR:	212	1	152	0		212	1 152	0%	4	270	1	154	U	270	1	154
$\begin{array}{c} \downarrow \downarrow Lt-Th \\ \rightarrow Thru \\ true \\ Th-Rt \\ \end{array}$	Existing: 50%	30	0	0	0		30	0 0	0%	0	30	0	0	0	30	0	0
$\frac{2}{10}$ $$ Th-Rt	Projected: 50%	30	0	0	0		30	0 0	0%	U	30	0	0	U	30	0	0
e → Right	Mitigated: 50%	224	1	76	0		004	1 76	(5%)	5	220	1	77	0	220	1	77
\rightarrow Shared		234	0	0	0		234	0 0	0%	S	239	0	0	0	239	0	0
_ C Left			0	0	0		4	0 0	0%	0	4	0	0	•		0	0
סיר Lt-Th	W/B RTOR:	1	1	25	0		1	1 25	0%	0	1	1	25	0	1	1	25
Q ← Thru	Existing: 50%	0.4	0	0			0.4	0 0	0%	0	0.4	0	0	_		0	0
$\overrightarrow{O} \leftarrow Thru$ $\overrightarrow{I} \leftarrow Th-Rt$	Projected: 50%	24	0	0	0		24	0 0	0%	0	24	0	0	0	24	0	0
Š ← Right	Mitigated: 50%	_	1	3			-	1 3	0%		_	1	3	_	_	1	3
Shared		5	0	0	0		5	0 0	0%	0	5	0	0	0	5	0	0
	ritical Volumes:	North-	South	1123			North-Sout	n: 1123			North-	South	1132		North	South:	1132
	nucai volumes.		West:	177			East-Wes					-West:	179			-West:	179
																	1311
,			Total:	1300			Tota					Total:	1311			Total:	
	apacity (<i>v/c</i>) ratio:			0.946				0.946					0.954				0.954
v/c less A	TSAC adjustment:			0.846				0.846					0.854				0.854
Level	of Service (LOS):			D				D					D				D
											PR	S O J E	ЕСТ	IMPA	A C T		
Filename:	K:\LDT_LDEV\99038001 Wash	ington & National Lowe	Nocuments\Tr	raffic\Analysis\CM/	ACalc Forms\CMAC	alc_Final_Ex+Pro		С	hange in	v∕c due	to project:		0.008	$\Delta v/c$ after	mitigation:		800.0
Developed 200	05-2007 by Ken Aitchis	-		-					•		impacted?		NO		mitigated?		N/A
-	-								· 9··	····)	1			"			

Intercenti	on No. 14	2014	, EXIST		2014				DACE		2014				2014 14/			CATION
North/South Stre			Phases:		Ambient 0		TED CUMUL Critical P			🛛 Adj		, WITH PF	<u>Out</u>	Total	2014, 11	TH TRAFF	Phases:	
Jefferson Bl			apacity:		from:			pacity:		Trip	AM	<u>In</u> 173	83	256			apacity:	-
East/West Stree			System:		to:	2014	Signal Sy	. ,		Gen 1	PM	173	174	301	Use Dist		System:	
National Blv	_	-	duction:		at:	1.0%	v/c redu			Trip	AM	0	0	0	LUSE DIST	-	duction:	
		Opposed F			а.	1.076	Opposed Ph			Gen 2	PM	0	0	0		Opposed I		
3		Counts	masing.	∠ Lane	+ Amb.	+ Area	= Total	iasing.	Z Lane		Project	Total	0	Lane	Adjusted	Total	masing.	Z Lane
PM Peak:	5:00 PM	Volume	Lanes	Volume		Projects		Lanes			olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
ר ב Left		192	1	192	0		192	1	192	5%	7	199	1	199	0	199	1	199
Ğ ∽Î Lt-Th	<u>N/B RTOR:</u>	192	0	0	0		192	0	0	0%		199	0	0	U	199	0	0
Ceft Lt-Th Oct Thru PTh-Rt OC Right	Existing: 75%	791	2	396	0		791	2	396	0%	0	791	2	396	0	791	2	396
⊊ ∱ Th-Rt	Projected: 75%	191	0	0	U		791	0	0	0%	U	791	0	0	U	791	0	0
	Mitigated: 75%	6	1	0	0		6	1	0	0%	0	6	1	0	0	6	1	0
Z ∰Shared		0	0	0	0		0	0	0	0%	U	0	0	0	U	0	0	0
- → Left		2	1	2	0		2	1	2	0%	0	2	1	2	0	2	1	2
Ğ ,≻Lt-Th	<u>S/B RTOR:</u>	2	0	0	0		2	0	0	0%	U	2	0	0	U	2	0	0
pun bLt-Th oqu ↓ Thru un ↓ Th-Rt o ↓ Right	Existing: 50%	485	1	485	0		485	1	485	0%	0	485	1	485	0	485	1	485
ਦੂ ⊷ Th-Rt	Projected: 50%	400	0	0	0		400	0	0	0%	U	400	0	0	U	400	0	0
Right √	Mitigated: 50%	224	1	0	0		224	1	0	5%	6	230	1	0	0	230	1	0
⁽ ∕) ↔ Shared		224	0	0	0		224	0	0	0%	0	230	0	0	U	230	0	0
Left		564	1	310	0		564	1	310	(5%)	9	573	1	315	0	573	1	315
ਊ - ∠ Lt-Th	E/B RTOR:	504	1	267	0		304	1	267	0%	9	575	1	271	U	575	1	271
$\begin{array}{c} \begin{array}{c} \begin{array}{c} \mu \\ \mu \\ \eta \\$	Existing: 50%	13	0	0	0		13	0	0	0%	0	13	0	0	0	13	0	0
ਦੋ ⊤ Th-Rt	Projected: 50%	15	0	0	0		15	0	0	0%	U	15	0	0	U	15	0	0
	Mitigated: 50%	414	1	318	0		414	1	318	(5%)	9	423	1	323	0	423	1	323
_		414	0	0	0		414	0	0	0%	3	423	0	0	U	423	0	0
_ ← Left		13	0	0	0		13	0	0	0%	0	13	0	0	0	13	0	0
די גנית בייך Lt-Th	W/B RTOR:	13	1	43	0		13	1	43	0%	U	15	1	43		15	1	43
od ← Thru	Existing: 50%	30	0	0	0		30	0	0	0%	0	30	0	0	0	30	0	0
	Projected: 50%	30	0	0	0		30	0	0	0%	U	30	0	0	U	30	0	0
⇒ [€] Right	Mitigated: 50%	14	1	13	0		14	1	13	0%	0	14	1	13	0	14	1	13
> → Shared		14	0	0	0		14	0	0	0%	U	14	0	0	U	14	0	0
	itical Volumes:	North-	South:	677			North-S	South:	677			North-	South:	684		North	South:	684
			-West:	361			East-\		361				-West:	366			-West:	366
			Total:	1038				otal:	1038				Total:	1050			Total:	1050
Volume/ca	pacity (<i>v/c</i>) ratio:		rotai.	0.755				otal.	0.755				i otali	0.764			rotai.	0.764
	SAC adjustment:			0.655					0.655					0.664				0.664
Level	of Service (LOS):			В					В					B				В
														<u>E C T</u>	IMPA			
	K:\LDT_LDEV\99038001 Wash	-	e\Documents\T	raffic\Analysis\CMA	Calc Forms\CMAC	alc_Final_Ex+Pro			С	•		to project:		0.009	$\Delta v/c$ after	0		0.009
Developed 2008	5-2007 by Ken Aitchis	son								Signi	ficantly	impacted?		NO	Fully	mitigated?		N/A

гт																	
Intersection No. 15		, EXISTI				TED CUMU					, WITH PF			2014, WI	TH TRAFF		
North/South Street:	Critical	Phases:	2	Ambient G			Phases:			acent	<u>In</u>	<u>Out</u>	<u>Total</u>			Phases:	
Robertson Blvd	C	apacity:	1500	from:	2014	С	apacity:	1500	Trip	AM	173	83	256		C	apacity:	1500
East/West Street:	Signal	System:	3	to:	2014	Signal	System:	3	Gen 1	PM	127	174	301	Use Dist	21 Signal S	System:	3
I-10 WB Offramp	v/c red	duction:	10%	at:	1.0%	v/c ree	duction:	10%	Trip	AM	0	0	0		v/c red	duction:	10%
Analysis Date: 10/29/2015	Opposed F	hasing:	2			Opposed F	Phasing:	2	Gen 2	PM	0	0	0		Opposed F	Phasing:	2
AM Peak: 8:00 AM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	= Total		Lane	Adjusted	Total		Lane
5 1-6	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes			/olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
C Right Lt-Th Lt-Th N/B RTOR: C ↓ Lt-Th Existing: 75% Projected: 75% Mitigated: 75%	56	1	56	0		56	1	56	0%	0	56	1	56	0	56	I L	56
S → Lt-Th <u>N/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
C Thru Existing: 75%	1251	2	626	0		1251	2	626	0%	0	1251	2	626	0	1251	2	626
Th-Rt Projected: 75%		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
Shared		0	0				0	0	0%			0	0			0	0
₽ ^{Left}	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
S → Lt-Th <u>S/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
$\begin{array}{c c} & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & &$	1402	1	731	0		1402	1	731	0%	0	1402	1	731	0	1402	1	731
th-Rt Projected: 50%		1	731				1	731	0%			1	731			1	731
	59	0	0	0		59	0	0	0%	0	59	0	0	0	59	0	0
A Shared		0	0				0	0	0%	•		0	0			0	0
Left	128	1	128	0		128	1	128	0%	0	128	1	128	0	128	1	128
$\begin{array}{ccc} & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & &$	120	0	0	Ŭ		120	0	0	0%		120	0	0	- V	120	0	0
$\overrightarrow{O} \rightarrow \text{Thru}$ Existing: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
$\frac{1}{10}$ $$ Th-Rt Projected: 50%	Ŭ	0	0	Ŭ		Ŭ	0	0	0%		Ŭ	0	0	Ŭ	Ŭ	0	0
Right Mitigated: 50%	60	1	32	0		60	1	32	0%	0	60	1	32	0	60	1	32
	00	0	0			00	0	0	0%	<u> </u>	00	0	0	•	00	0	0
_ ← Left	78	0	0	0		78	0	0	10%	18	96	0	0	0	96	0	0
$rac{1}{5}$ $rac{$	10	1	119	U		70	1	119	0%	10	30	1	137	U	30	1	137
Q ← Thru Existing: 50%	41	0	0	0		41	0	0	0%	0	41	0	0	0	41	0	0
$\frac{1}{50}$ $\stackrel{\text{h-Rt}}{\leftarrow}$ Th-Rt Projected: 50%		0	0	U			0	0	0%	•		0	0	U		0	0
^O ← Right Mitigated: 50%	125	1	125	0		125	1	125	0%	0	125	1	125	0	125	1	125
Shared	125	0	0	0		125	0	0	0%	U	125	0	0	U	125	0	0
Critical Volumes:	North-	South:	787			North-	South:	787			North-	South:	787		North-	South:	787
		-West:	253				-West:	253				-West:	265			-West:	265
		Total:	1040				Total:	1040				Total:	1052			Total:	1052
Volume/capacity (v/c) ratio:			0.693					0.693					0.701				0.701
v/c less ATSAC adjustment:			0.593					0.593					0.601				0.601
Level of Service (LOS):			А					A					B				В
													<u>E C T</u>	IMPA			
Filename: K:\LDT_LDEV\99038001 Washi	ington & National Low	e\Documents\Tr	affic\Analysis\CMA	Calc Forms\CMAC	alc_Final_Ex+Pro			С	•		to project:		0.008	$\Delta v/c$ after	0		0.008
Developed 2005-2007 by Ken Aitchis	son								Sign	ificantly	impacted?		NO	Fully	mitigated?		N/A

					1													
Intersecti	<u>ion No. 15</u>		, EXIST		2014,	PROJEC	TED CUMU	LATIVE	BASE	_		, WITH PF	ROJECT		2014, WI	TH TRAFF	IC MITI	GATION
North/South Str	reet:	Critical	Phases:	2	Ambient G	irowth	Critical	Phases:	2		jacent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	2
Robertson I	Blvd	C	apacity:	1500	from:	2014	Ca	apacity:	1500	Trip	AM	173	83	256		С	apacity:	1500
East/West Stree		Signal S	System:	3	to:	2014	Signal S	System:	3	Gen 1	PM	127	174	301	Use Dist	21 Signal	System:	3
I-10 WB Of	framp	v/c red	duction:	10%	at:	1.0%	v/c red	duction:	10%	Trip	AM	0	0	0		v/c ree	duction:	10%
Analysis Date:	10/29/2015	Opposed F	Phasing:	2			Opposed P	hasing:	2	Gen 2	PM	0	0	0		Opposed F	hasing:	2
PM Peak:	5:00 PM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	Total		Lane	Adjusted	Total		Lane
5 1 - 4	0.000	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume		/olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
p ↑ Left Lt-Th oq ↑ Thru ↓ Th-Rt o ← Right	N/D DTOD	33	I	33	0		33	I	33	0%	0	33	1	33	0	33	<u>'</u> [33
Lt-Th	<u>N/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
Q ↑ Thru	Existing: 75%	863	2	432	0		863	2	432	0%	0	863	2	432	0	863	2	432
£ I≁Th-Rt	Projected: 75%		0	0				0	0	0%			0	0			0	0
	Mitigated: 75%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
Shared			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
pun ↓Lt-Th oquin ↓ Thru un ↓ Th-Rt o ↓ Right	<u>S/B RTOR:</u>	-	0	0				0	0	0%			0	0		-	0	0
C ↓ Thru	Existing: 50%	1469	1	753	0		1469	1	753	0%	0	1469	1	753	0	1469	1	753
ਿ ਦੂ ⊷ Th-Rt	Projected: 50%		1	753				1	753	0%			1	753			1	753
	Mitigated: 50%	36	0	0	0		36	0	0	0%	0	36	0	0	0	36	0	0
↔Shared		00	0	0	•			0	0	0%	•	00	0	0	•	00	0	0
Left		71	1	71	0		71	1	71	0%	0	71	1	71	0	71	1	71
tr-Lt-Lt the state of the sta	E/B RTOR:		0	0	•		11	0	0	0%			0	0	U U		0	0
od → Thru	Existing: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
ਜੋ → Th-Rt	Projected: 50%	v	0	0	•		U	0	0	0%	•	0	0	0	U	v	0	0
ю́ 🤆 Right	Mitigated: 50%	59	1	43	0		59	1	43	0%	0	59	1	43	0	59	1	43
😽 Shared		55	0	0	U		59	0	0	0%	U	59	0	0	U	59	0	0
← Left		258	0	0	0		258	0	0	10%	13	271	0	0	0	271	0	0
⊑ 🛠 Lt-Th	W/B RTOR:	200	1	292	U		250	1	292	0%	13	271	1	305	U	271	1	305
tt-Th c thru tru tru tru tru tru tru tru t	Existing: 50%	34	0	0	0		34	0	0	0%	0	34	0	0	0	34	0	0
ਲੋ ← Th-Rt	Projected: 50%	- 34	0	0	U		34	0	0	0%	U	34	0	0	0	54	0	0
	Mitigated: 50%	500	1	508			500	1	508	0%	0	500	1	508	0	500	1	508
> → Shared		508	0	0	0		508	0	0	0%	U	508	0	0	U	508	0	0
	ritical Volumes:	North-	South.	786			North-	South:	786			North-	South:	786		North-	South.	786
			-West:	579				-West:	579				-West:	592			-West:	579
			Total:	1365				Total:	1365				Total:	1378			Total:	1365
Volume/an	productive (w/a) ratio		rotal.	0.910				i otal.	0.910				rotal.	0.918			i otai.	0.910
	apacity (<i>v/c</i>) ratio:																	
	SAC adjustment:			0.810					0.810					0.818				0.810
Level	of Service (LOS):			D					D				-	D				D
														ЕСТ	IMPA	<u> </u>		
Filename:	K:\LDT_LDEV\99038001 Washi	ington & National Low	e\Documents\T	raffic\Analysis\CMA	ACalc Forms\CMAC	alc_Final_Ex+Pro			С	hange in	v/c due	to project:		0.008	$\Delta v/c$ after	mitigation:		0.000
Developed 200	5-2007 by Ken Aitchis	son								Sign	ificantly	impacted?		NO	Fully	mitigated?		N/A

,		0					0				2010/01/01/01/01/01/01/01/01/01/01/01
DOT Case Number:			5	ject Tri	•	Adjac	ent to Pi	roject	No	t Adjace	nt
Year of counts:	2014		Ger	neratio	n	In	Out	Total	In	Out	Total
Project buildout:	2019		Trip Gen	A	M Peak	192	98	290	173	83	256
Ambient growth:	1.0%	per year		PI	M Peak	149	193	342	127	174	301
Filename:	Lowe\Docur	V/99038001 Washington & National nents\Traffic\Analysis\CMACalc Calc_Final_2019.xls									

Project: Washington Blvd - National Blvd Traffic and Parking Services

		Peak	Existing	g (2014)	Cumulat	ive Base	Future wi	th project	Projec	t Impact	A	fter mitigati	on
No.	Intersection	Hour	v/c	LOS	v/c	LOS	v/c	LOS	∆ v/c	significant?	v/c	∆ v/c	mitigated?
1	Culver Boulevard &	AM	0.548	А	0.639	В	0.653	В	0.014	NO			N/A
	Venice Boulevard	PM	0.491	А	0.597	А	0.609	В	0.012	NO			N/A
2	Robertson Blvd/Exposition &	AM	1.041	F	0.883	D	0.888	D	0.005	NO			N/A
	Venice Boulevard	PM	0.839	D	0.703	С	0.713	С	0.010	NO			N/A
3	National Boulevard &	AM	0.604	В	0.634	В	0.690	В	0.056	NO	0.631	-0.003	N/A
	Venice Boulevard	PM	0.647	В	0.708	С	0.756	С	0.048	YES	0.694	-0.014	YES
4	Helms Avenue &	AM	0.265	А	0.285	А	0.288	А	0.003	NO			N/A
	Venice Boulevard	PM	0.271	А	0.294	А	0.301	А	0.007	NO			N/A
5	Cattaraugus Avenue &	AM	0.713	С	0.785	С	0.788	С	0.003	NO			N/A
	Venice Boulevard	PM	0.607	В	0.677	В	0.687	В	0.010	NO			N/A
6	Robertson Blvd/Higuera &	AM	0.690	В	0.781	С	0.784	С	0.003	NO			N/A
	Washington Boulevard	PM	0.660	В	0.753	С	0.755	С	0.002	NO			N/A
7	National Boulevard &	AM	0.680	В	0.797	С	0.806	D	0.009	NO	0.754	-0.043	N/A
	Washington Boulevard	PM	0.788	С	0.893	D	0.904	Е	0.011	YES	0.880	-0.013	YES
8	Helms Avenue &	AM	0.435	А	0.469	А	0.477	А	0.008	NO			N/A
	Washington Boulevard	PM	0.469	А	0.510	А	0.518	А	0.008	NO			N/A
9	Robertson Boulevard &	AM	0.847	D	0.930	E	0.950	Е	0.020	YES	0.873	-0.057	YES
	National Boulevard	PM	0.753	С	0.837	D	0.856	D	0.019	NO	0.856	0.019	N/A
10	National Boulevard &	AM	0.219	А	0.351	А	0.370	А	0.019	NO			N/A
	I-10 EB Ramp	PM	0.353	А	0.543	А	0.549	А	0.006	NO			N/A
11	Wesley Street &	AM	0.343	А	0.407	А	0.413	А	0.006	NO			N/A
	National Boulevard	PM	0.317	А	0.390	А	0.396	А	0.006	NO			N/A
12	La Cienega Boulevard &	AM	0.787	С	0.837	D	0.847	D	0.010	NO			N/A
	Venice Boulevard	PM	0.797	С	0.848	D	0.853	D	0.005	NO			N/A
13	Fairfax Blvd &	AM	0.692	В	0.747	С	0.756	С	0.009	NO			N/A
	Washington Blvd	PM	0.658	В	0.732	С	0.737	С	0.005	NO			N/A
14	Jefferson Blvd &	AM	0.846	D	0.945	E	0.953	E	0.008	NO			N/A
	National Blvd	PM	0.655	В	0.769	С	0.778	С	0.009	NO			N/A
15	Robertson Blvd &	AM	0.593	А	0.785	С	0.797	С	0.012	NO			N/A
	I-10 WB Offramp	PM	0.810	D	0.857	D	0.865	D	0.008	NO			N/A
16	National Boulevard &	AM	0.000	А	0.000	А	0.383	А	0.383	NO			N/A
	Project Main Dwy	PM	0.000	А	0.000	А	0.474	А	0.474	NO			N/A

Level of Service and Volume to Capacity Ratio Summary

Intersect	tion No. 1	2014	EXIST	ING	2019	PRO IFC	TED CUMU	LATIVE	BASE		2019	, WITH PF			2019 WI	TH TRAFF		GATION
North/South Str			Phases:		Ambient 0			Phases:		Ad	jacent	<u>In</u>	Out	<u>Total</u>			Phases:	
Culver Boul			apacity:		from:	2014		apacity:		Trip	AM	173	83	256			apacity:	
East/West Stree			System:		to:	2019		System:		Gen 1	PM	127	174		Use Dist		System:	
Venice Bou		0	Juction:		at:	1.0%	•	duction:		Trip	AM	0	0	0		0	duction:	
	10/29/2015	Opposed P					Opposed P			Gen 2	PM	0	0	0		Opposed I		
AM Peak:		Counts	0	Lane	+ Amb.	+ Area	= Total	0	Lane	+	Project	= Total		Lane	Adjusted	Total	0	Lane
	6:00 AIVI	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume		/olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
<u>ר</u> ק Left		39	1	39	2		41	1	41	0%	0	41	1	41	0	41	1	41
P Left Lt-Th oq ↑ Thru th Th-Rt or Right	<u>N/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
	Existing: 75%	64	1	64	3		67	1	67	0%	0	67	1	67	0	67	1	67
£ 1≁Th-Rt	Projected: 75%		0	0				0	0	0%			0	0			0	0
Ō Ĉ Right	Mitigated: 75%	721	2	241	37	90	848	2	235	10%	17	865	2	240	0	865	2	240
`↑´Shared			0	0				0	0	0%			0	0			0	0
₽ [↓] Left		148	1	81	8		156	1	86	0%	0	156	1	86	0	156	1	86
S →Lt-Th	<u>S/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
Punoq ↓ Lt-Th oq ↓ Thru ↓ Th-Rt OQ Right	Existing: 50%	37	0	0	2		39	0	0	0%	0	39	0	0	0	39	0	0
t d Th-Rt	Projected: 50%		0	0				0	0	0%			0	0			0	0
o → Right	Mitigated: 50%	29	0	0	1		30	0	0	0%	0	30	0	0	0	30	0	0
Shared			1	133				1	139	0%			1	139	-		1	139
Left		4	1	4	0		4	1	4	0%	0	4	1	4	0	4	1	4
lg → Lt-Th	<u>E/B RTOR:</u>		0	0	-			0	0	0%		-	0	0			0	0
$\vec{O} \rightarrow \text{Thru}$	Existing: 50%	873	2	310	45	22	940	2	333	15%	26	966	2	342	0	966	2	342
$\begin{array}{c} \begin{array}{c} \downarrow \downarrow \downarrow Lt-Th \\ \hline \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	Projected: 50%		1	310				1	333	0%			1	342			1	342
— •	Mitigated: 50%	57	0	0	3		60	0	0	0%	0	60	0	0	0	60	0	0
			0	0				0	0	0%			0	0			0	0
ਰ ^{⊂ Left}		376	2	207	19	166	561	2	309	(10%)	9	570	2	314	0	570	2	314
$\begin{array}{c} \downarrow \\ \downarrow $	<u>W/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
O ← Thru	Existing: 50%	1027	2	388	52	6	1085	2	410	(15%)	12	1097	2	414	0	1097	2	414
Th-Rt	Projected: 50%		1	388		Ū		1	410	0%			1	414			1	414
$\stackrel{\text{O}}{\geq} \stackrel{\text{C}}{\stackrel{\text{C}}{\uparrow}} \operatorname{Right}$	Mitigated: 50%	138	0	0	7		145	0	0	0%	0	145	0	0	0	145	0	0
→ Shared			0	0				0	0	0%			0	0			0	0
Ci	ritical Volumes:	North-	South:	374			North-	South:	374			North-	South:	380		North-	South:	380
		East	West:	517			East	-West:	642			East	-West:	655		East	-West:	655
			Total:	891				Total:	1016				Total:	1035			Total:	1035
Volume/ca	apacity (<i>v/c</i>) ratio:			0.648					0.739					0.753				0.753
v/c less AT	TSAC adjustment:			0.548					0.639					0.653				0.653
	of Service (LOS):			A					B					B				B
		L		73	1				U	1		ΡŖ		ECT	IMPA	ACT		U
Filorenei		leader a blatt - 11			10-1- F 10-11	- First and a			C	hango in	v/c due	to project:		0.014				0.014
Filename:	K:\LDT_LDEV\99038001 Wash	-	eluocuments\1	ramcvAnalysis/CMA	ACAIC FORMS\CMAC	aic_Final_2019.xl:			C	•		impacted?		NO		mitigated?		N/A
Developed 200	JJ-2007 by Nen AllChis	5011								Sigi	meanity	inpacted?		NO	Fully	miliyaleu?		IN/A

Intersect	tion No. 1	2014	EXIST	ING	2019	PROJEC	FED CUMU	LATIVE	BASE		2019	, WITH PF	ROJECT		2019 WI	TH TRAFF	IC MITI	GATION
North/South Stre			Phases:		Ambient 0			Phases:		Ad	jacent	<u>In</u>	Out	<u>Total</u>			Phases:	
Culver Boul			apacity:		from:	2014		apacity:		Trip	AM	173	83	256			apacity:	
East/West Street			System:		to:	2019		System:		Gen 1	PM	127	174		Use Dist		System:	
Venice Boul		0	luction:		at:	1.0%	•	duction:		Trip	AM	0	0	0		0	duction:	
Analysis Date:		Opposed P					Opposed F			Gen 2	PM	0	0	0		Opposed I		
-		Counts	5	Lane	+ Amb.	+ Area	= Total	5	Lane	+	Project	Total		Lane	Adjusted	Total	5	Lane
PM Peak:	5:00 PM	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume		Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
_ Left رح		75	1	75	4		79	1	79	0%	0	79	1	79	0	79	1	79
P 1 Left Lt-Th of ↑ Thru the Th-Rt of Right	<u>N/B RTOR:</u>	10	0	0	-		10	0	0	0%		10	0	0	•	10	0	0
<u> </u>	Existing: 75%	39	1	39	2		41	1	41	0%	0	41	1	41	0	41	1	41
- ⊖ Th-Rt	Projected: 75%	00	0	0	2			0_	0	0%	•		0	0	•		0	0
💆 🔿 Right	Mitigated: 75%	740	2	270	38	155	933	2	321	10%	13	946	2	321	0	946	2	321
Tr Shared		740	0	0	50	100	300	0	0	0%	15	340	0	0	V	340	0	0
-⊐ ^{Left}		167	1	92	9		176	1	97	0%	0	176	1	97	0	176	1	97
pun ↓ Lt-Th oq ↓ Thru ↓ Th-Rt O ↓ Right	<u>S/B RTOR:</u>	107	0	0	9		170	0	0	0%	0	170	0	0	v	170	0	0
B ↓ Thru	Existing: 50%	39	0	0	2		41	0	0	0%	0	41	0	0	0	41	0	0
ਦੂ ⊷∤ Th-Rt	Projected: 50%		0	0	2		41	0	0	0%	U	41	0	0	U	41	0	0
Right ↓	Mitigated: 50%	25	0	0	1		26	0	0	0%	0	26	0	0	0	26	0	0
⁽ ∕) ↔ Shared		20	1	139	I		20	1	146	0%	U	20	1	146	U	20	1	146
_ [_] _ Left		4	1	4	0		4	1	4	0%	0	4	1	4	0	4	1	4
$\begin{array}{c} \begin{array}{c} \begin{array}{c} \downarrow \\ \mu \\ \mu \\ \eta \\ \tau \\ \tau \\ \tau \\ \tau \\ \mu \\ \mu \\ \tau \\ \tau \\ \tau \\ \tau$	E/B RTOR:	4	0	0	0		4	0	0	0%	U	4	0	0	0	4	0	0
o → Thru	Existing: 50%	641	2	221	33	10	684	2	236	15%	19	703	2	242	0	703	2	242
$\frac{1}{10}$ $$ Th-Rt	Projected: 50%	041	1	221		10	004	1	236	0%	19	703	1	242	U	703	1	242
ti → Right	Mitigated: 50%	22	0	0	1		23	0	0	0%	0	23	0	0	0	23	0	0
Shared		22	0	0	I		23	0	0	0%	U	23	0	0	U	23	0	0
← Left		222	2	183	17	116	465	2	256	(10%)	19	484	2	266	0	484	2	266
$\begin{array}{c} p \downarrow Left \\ p \downarrow p \downarrow Lt-Th \\ roopt \leftarrow Thru \\ the the the the the the the the the the$	W/B RTOR:	332	0	0	17	110	400	0	0	0%	19	484	0	0	U	484	0	0
og ← Thru	Existing: 50%	4040	2	374	50		4007	2	400	(15%)	25	4440	2	408	0	4440	2	408
$\frac{2}{5}$ \checkmark Th-Rt	Projected: 50%	1013	1	374	52	22	1087	1	400	0%	25	1112	1	408	0	1112	1	408
⇒ ∽ Right	Mitigated: 50%	400	0	0	0			0	0	0%	0		0	0	0		0	0
> → Shared		108	0	0	6		114	0	0	0%	U	114	0	0	0	114	0	0
	itical Volumes:	North-	South.	409			North-	South:	467			North-	South:	467		North-	South:	467
			West:	404				-West:	491				-West:	508			-West:	508
			Total:	813				Total:	959				Total:	975			Total:	975
Volume/ca	apacity (<i>v/c</i>) ratio:		rotai.	0.591				rotal.	0.697				rotai.	0.709			rotal.	0.709
	SAC adjustment:			0.491					0.597					0.609				0.609
Level	of Service (LOS):			А					А				<u> </u>	B		. o .		В
														ECT	IMPA			
	K:\LDT_LDEV\99038001 Washi	-	e\Documents\T	raffic\Analysis\CM/	ACalc Forms\CMAC	alc_Final_2019.xl:			С	•		to project:		0.012		0		0.012
Developed 2005	5-2007 by Ken Aitchis	son								Sigr	nificantly	impacted?		NO	Fully	mitigated?		N/A

<u> </u>																		
	tion No. 2		, EXIST				TED CUMU					, WITH PF			2019, WI	TH TRAFF		
North/South Stre			Phases:		Ambient C			Phases:			acent	<u>In</u>	<u>Out</u>	<u>Total</u>			Phases:	-
Robertson Blv			apacity:		from:			apacity:		Trip	AM	192	98	290			apacity:	
East/West Stree	-	0	System:		to:	2019	0	System:		Gen 1	PM	149	193	342	Use Dist	0	System:	
Venice Boul			duction:		at:	1.0%		duction:		Trip	AM	0	0	0			duction:	
Analysis Date:	10/29/2015	Opposed P	hasing:				Opposed I	Phasing:		Gen 2	PM	0	0	0		Opposed F	hasing:	
AM Peak:	8:00 AM	Counts Volume	Lanes	Lane Volume	+ Amb. Growth	+ Area Projects	= Total Volume	Lanes	Lane Volume		Project /olume	= Total Volume	Lanes	Lane Volume	Adjusted Volume	Total Volume	Lanes	Lane Volume
Left آھ			1	68				1	76	(5%)			1	<u>volume</u> 81			1	<u>volume</u> 81
und Lt-Th	N/B RTOR:	68	0	0	3	5	76	0	. 0	0%	5	81	0	0	0	81	0	0
Q ↑ Thru	Existing: 75%		1	461				1	262	0%			1	262			1	262
L → Th-Rt	Projected: 75%	461	0	0	24	25	510	1	262	0%	0	510	1	262	0	510	1	262
<u> </u>	Mitigated: 75%		1	30				1	17	0%			1	17			1	17
Z ↔ Shared		48	0	0	2		50	0	0	0%	0	50	0	0	0	50	0	0
L. Loft			1	229				2	275	0%	_		2	275			2	275
12.	S/B RTOR:	416	1	290	21	63	500-		0	0%	0	500	0	0	0	500	0	0
Q ↓ Thru	Existing: 50%			0	_	~~		1	206	0%			1	206			1	206
⊈ ⊷ Th-Rt	Projected: 50%	103	0	0	5	98	206	0	0	0%	0	206	0	0	0	206	0	0
Right	Mitigated: 50%	- 1 -	1	335		407	- 10	1	477	0%	_	- 10	1	477		- 10	1	477
^𝒞 ↔ Shared		519	0	0	26	167	712	0	0	0%	0	712	0	0	0	712	0	0
Left			2	202	10	0.4	474	2	259	0%	_	474	2	259	_	171	2	259
	E/B RTOR:	368	0	0	19	84	471	0	0	0%	0	471	0	0	0	471	0	0
tr-Lt-Lt tr tr tr tr tr tr tr tr tr tr tr tr tr	Existing: 0%	4000	1	706	74		4.405	3	488	25%	40	4540	3	504	_	4540	3	504
ਦੂ → Th-Rt	Projected: 0%	1383	1	706	71	11	1465	0	0	0%	48	1513	0	0	0	1513	0	0
	Mitigated: 0%	00	0	0			00	1	29	0%		00	1	29	0	00	1	29
Shared		28	0	0	1		29	0	0	0%	0	29	0	0	0	29	0	0
_ C Left		04	1	24	4		05	1	25	0%	0	05	1	25	0	05	1	25
un tru	W/B RTOR:	24	0	0	1		25	0	0	0%	U	25	0	0	0	25	0	0
o ← Thru	Existing: 0%	1001	1	571	51	7	1059	3	353	(20%)	20	1079	3	360	0	1079	3	360
ts ← Th-Rt	Projected: 0%	1001	1	571	51		1059	0	0	0%	20	1079	0	0	U	1079	0	0
$\stackrel{0}{>}$ $\stackrel{1}{\sim}$ Right	Mitigated: 0%	140	0	0	7	47	104	1	194	0%	0	194	1	194	0	104	1	194
Shared		140	0	0		47	194	0	0	0%	U	194	0	0	0	194	0	0
	ritical Volumes:	North-	South:	796					739			North-	South:	739		North-	South:	739
			-West:	773			Fast	-West:	612				-West:	619			-West:	619
			Total:	1569				Total:	1351				Total:	1358			Total:	1358
Volume/ca	apacity (<i>v/c</i>) ratio:			1.141					0.983					0.988				0.988
	SAC adjustment:			1.041					0.883					0.888				0.888
Level	of Service (LOS):			F					D									D
									-		, .			<u>E C T</u>	IMP A			0 005
	K:\LDT_LDEV\99038001 Washi	-	e\Documents\T	raffic\Analysis\CM/	Calc Forms\CMAC	alc_Final_2019.xl:			С	•		to project:		0.005	$\Delta v/c$ after	0		0.005
Developed 200	5-2007 by Ken Aitchis	son								Sign	iticantly	impacted?		NO	Fully	mitigated?		N/A

Intercent	ion No. 2	2014	EXISTI	NC	2010						2010				2010 14/1			
Intersect			Phases:		Ambient C		TED CUMU	Phases:			jacent	, WITH PF		Total	2019, 101	TH TRAFF	Phases:	
North/South Stre					from:	2014				Trip	AM	<u>In</u> 192	<u>Out</u> 98	<u>Total</u> 290			apacity:	
	•		apacity:					apacity:			PM				Dillos Dist			
East/West Stree	-	0	System:		to:	2019	0	System:		Gen 1		149	193	342	Use Dist	0	System:	
Venice Boul			luction:		at:	1.0%		duction:		Trip	AM	0	0	0			duction:	
Analysis Date:		Opposed P	nasing:		A ma la		Opposed F = Total	masing:		Gen 2	PM	0 Total	0	0	Adiustad	Opposed F	masing:	
PM Peak:	5:00 PM	Counts Volume	Lanes	Lane Volume	+ Amb. Growth	+ Area Projects	= Totai Volume	Lanes	Lane Volume		Project /olume	Volume	Lanes	Lane Volume	Adjusted Volume	Total Volume	Lanes	Lane Volume
ר ב Left			1	96				1	104	(5%)			1	114			1	114
⊈ ⊷ Lt-Th	N/B RTOR:	96	0	0	5	3	104	0		0%	10	114	0	0	0	114	0	0
Q ↑ Thru	Existing: 50%		1	376				1	253	0%			1	253			1	253
G Th-Rt	Projected: 50%	376	0	0.0	19	103	498	1	253	0%	0	498	1	253	0	498	1	253
τ.	Mitigated: 50%		1	15				1	9	0%			1	9			1	200
Z Shared	Wittigated. 5070	29	Ċ	10	1		30	0	· · · · ·	0%	0	30	0	0	0	30	0	0
U Loft			1	175				2		0%			2	217			2	217
ur b-Lt-Th	S/B RTOR:	319	1	230	16	59	394	0		0%	0	394	0	217	0	394	2	217
$O \downarrow Thru$	Existing: 50%		0	230				1	118	0%			1	118			1	118
2	ů.	86	0	0	4	28	118	0		0%	0	118	0	110	0	118	0	110
	Projected: 50%		1	· · · ·				1	264	0%			~ ,	264			4	264
Ι(Λ) · · · ·	Mitigated: 50%	328		205	17	124	469	1		0%	0	469	1	204	0	469	۱L 0	204
→Shared			0	<u> </u>				0	-				0	005				005
Lort		246	2	135	13	151	410	2		0%	0	410	2	225	0	410	2	225
	E/B RTOR:		0	0				0		0%			0	0			0	0
$\vec{O} \rightarrow \text{Thru}$	Existing: 0%	1282	1	657	65	2	1349	3	450	25%	37	1386	3	462	0	1386	3	462
$\frac{1}{2}$ $\frac{1}{2}$ Th-Rt	Projected: 0%		1	657				0	0	0%			0	0			0	0
	Mitigated: 0%	32	0	0	2		34	1	34	0%	0	34	1	34	0	34	1	34
		-	0	0			_	0	0	0%			0	0			0	0
⊖ ← Left		29	1	29	1	0	30	1	30	0%	0	30	1	30	0	30	1	30
- - - - - - - - - -	<u>W/B RTOR:</u>		0	0				0	-	0%			0	0			0	0
og ← Thru	Existing: 0%	1019	1	548	52	17	1088	3	ι	(20%)	39	1127	3	376	0	1127	3	376
$\frac{1}{100}$ $\frac{1}{100}$ Th-Rt	Projected: 0%		1	548		• •		0	0	0%			0	0			0	0
	Mitigated: 0%	76	0	0	4	82	162	1	162	0%	0	162	1	162	0	162	1	162
> → Shared		10	0	0	-	02	102	0	0	0%	Ŭ	102	0	0		102	0	0
Cr	itical Volumes:	North-	South:	606			North-	South:	516			North-	South:	516		North-	South:	516
		East-	West:	686			East	-West:	588			East	-West:	601		East	West:	601
			Total:	1292				Total:	1104				Total:	1117			Total:	1117
Volume/ca	pacity (<i>v/c</i>) ratio:			0.939					0.803					0.813				0.813
				0.839					0.703					0.713				0.713
	SAC adjustment:																	
Level	of Service (LOS):			D					С					C				С
														<u>E C T</u>	IMPA			
	K:\LDT_LDEV\99038001 Washi	-	e\Documents\Tr	affic\Analysis\CMA	Calc Forms\CMAC	alc_Final_2019.xl:			С	•		to project:		0.010	$\Delta v/c$ after	0		0.010
Developed 2008	5-2007 by Ken Aitchis	son								Sign	ificantly	impacted?		NO	Fully	mitigated?		N/A

Intersecti	on No. 3	2014	, EXIST	ING	2019	, PROJEC	TED CUMU	LATIVE	BASE		2019	, WITH PF	ROJECT		2019, WI	TH TRAFF		GATION
North/South Stre	et:	Critical I	Phases:	3	Ambient (Growth	Critical	Phases:	3	🗹 Adj	acent	In	<u>Out</u>	Total		Critical	Phases:	3
National Bou	ulevard	Ca	apacity:	1425	from:	2014	С	apacity:	1425	Trip	AM	192	98	290		C	apacity:	1425
East/West Street	:	Signal S	System:	3	to:	2019	Signal	System:	3	Gen 1	PM	149	193	342	Use Dist	21 Signal	System:	3
Venice Boule	evard	v/c rec	duction:	10%	at:	1.0%	v/c re	duction:	10%	Trip	AM	0	0	0		-	duction:	10%
Analysis Date:	10/29/2015	Opposed P	hasing:	0			Opposed I	Phasing:	0	Gen 2	PM	0	0	0		Opposed I	Phasing:	0
AM Peak:	8:00 AM	Counts		Lane	+ Amb.	+ Area	= Total	- 83	Lane	+ F	Project	= Total		Lane	Adjusted	Total	-	Lane
	8.00 AW	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume		/olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
Left		148	1	148	8	11	167	1	167	(20%)	20	187	1	187	0	187	2	103
	<u>N/B RTOR:</u>		0	0	-			0	0	0%			0	0			0	0
C Thru E	Existing: 50%	645	1	355	33	101	779	1	425	(20%)	20	799	1	442	0	799	2	399
₽ ₽ ₽ Th-Rt	Projected: 50%	0.10	1	355				1	425	0%	20		1	442	· · · ·		0	0
Q C Right M	Vitigated: 50%	64	0	0	3	3	70	0	0	(15%)	15	85	0	0	0	85	1	38
Shared		•••	0	0	, v	<u> </u>	10	0	0	0%	10	00	0	0	v	00	0	0
– [_] Left _		124	1	124	6	1	131	1	131	0%	0	131	1	131	0	131	1	131
<mark>∃</mark> →Lt-Th <u>s</u>	S/B RTOR:	124	0	0	U	•	101	0_	0	0%	•	101	0	0	U U	101	0	0
D → Lt-Th → Lt-Th → Thru ↓ Th-Rt → Right → Right	Existing: 50%	611	1	356	31	88	730	1	418	25%	44	774	1	440	0	774	1	440
f f th-Rt F	Projected: 50%	011	1	356	51	00	730	1	418	0%	44	114	1	440	U	//4	1	440
Right №	Vitigated: 50%	100	0	0	F	0	105	0	0	0%	0	105	0	0	0	105	0	0
∽ ↔ Shared		100	0	0	5	0	105	0	0	0%	U	105	0	0	0	105	0	0
J Left		50	1	58	2	9	70	2	38	(5%)	5	75	2	41	0	75	2	41
Lt-Th [E/B RTOR:	58	0	0	3	9	70	0	0	0%	Э	75	0	0	U	75	0	0
	Existing: 0%		3	381	50	~	4005	3	402	(10%)	~	4044	3	405		4044	3	405
$\frac{2}{10}$ $$ Th-Rt	Projected: 0%	1144	0	0	58	3	1205	0	0	0%	9	1214	0	0	0	1214	0	0
Right N	Vitigated: 0%	400	1	188	10		075	1	275	5%	40	005	1	285	•	005	1	285
Shared	-	188	0	0	10	77	275	0	0	0%	10	285	0	0	0	285	0	0
Cloft			1	45	-	40		1	60	20%			1	94	_		1	94
$\begin{array}{c} \downarrow \downarrow$	N/B RTOR:	45	0	0	2	13	60	0	0	0%	34	94	0	0	0	94	0	0
Q ← Thru E	Existing: 0%		2	442		_		3	310	0%			3	310			3	310
$\frac{Q}{t_0}$ $\stackrel{\sim}{\sim}$ Th-Rt F	Projected: 0%	883	0	0	45	3	931	Ō	0	0%	0	931	0	0	0	931	0	0
	Vitigated: 0%		1	113				1	120	0%			1	120			1	120
Shared □		113	0	0	6	1	120	0	0	0%	0	120	0	0	0	120	0	0
	tical Volumes:	North-	South:	504			North	South:	584			North-	South:	626		North	South:	542
	lical volumes.		-West:	500				-West:	462				-West:	499			-West:	499
			Total:	1003				Total:	1046				Total:	1125		Lasi	Total:	1041
			rotal.					Total.					rotal.				rotal.	
	oacity (<i>v/c</i>) ratio:			0.704					0.734					0.790				0.731
	SAC adjustment:			0.604					0.634					0.690				0.631
Level o	f Service (LOS):			В					В					В				В
												<u>P</u> R	OJE	ЕСТ	IMPA	ACT		
Filename: K	::\LDT_LDEV\99038001 Washi	ington & National Lowe	e\Documents\Ti	raffic\Analysis\CMA	Calc Forms\CMAC	Calc_Final_2019.xl:			С	hange in	v/c due	to project:		0.056	$\Delta v/c$ after	mitigation:	-	0.003
Developed 2005	-2007 by Ken Aitchis	son								Sign	ificantly	impacted?		NO		mitigated?		N/A
										0	,	•			,	-		

Intersect	ion No. 3	2014	, EXISTI	NG	2019	, PROJEC	TED CUMU	LATIVE	BASE		2019	, WITH PF	ROJECT		2019, WI	TH TRAFF		GATION
North/South Stre	eet:	Critical I	Phases:	3	Ambient (Growth	Critical	Phases:	3	🗹 Adj	acent	In	<u>Out</u>	Total		Critical	Phases:	3
National Bo	oulevard	Ca	apacity:	1425	from:	2014	С	apacity:	1425	Trip	AM	192	98	290		С	apacity:	1425
East/West Street	:t:	Signal S	System:	3	to:	2019	Signal	System:	3	Gen 1	PM	149	193	342	Use Dist	2 Signal	System:	3
Venice Boul	levard	v/c rec	duction:	10%	at:	1.0%	v/c ree	duction:	10%	Trip	AM	0	0	0		-	duction:	10%
Analysis Date:	10/29/2015	Opposed P	hasing:	0			Opposed F	Phasing:	0	Gen 2	PM	0	0	0		Opposed I	hasing:	0
PM Peak:	5:45 PM	Counts		Lane	+ Amb.	+ Area	= Total		Lane	+	Project	Total		Lane	Adjusted	Total	-	Lane
	5.45 T M	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume		/olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
Left		120	1	120	6	32	158	1	158	(20%)	39	197	1	197	0	197	2	108
	<u>N/B RTOR:</u>		0	0		_		0	0	0%			0	0	-		0	0
Q Î Thru	Existing: 50%	591	1	361	30	177	798	1	475	(20%)	39	837	1	507	0	837	2	419
£ ∱ Th-Rt	Projected: 50%		1	361				1	475	0%			1	507			0	0
O C Right	Mitigated: 50%	131	0	0	7	14	152	0	0	(15%)	25	177	0	0	0	177	1	102
Shared		-	0	0				0	0	0%			0	0			0	0
₽ [⊾] Left		146	1	146	7	1	154	1	154	0%	0	154	1	154	0	154	1	154
S →Lt-Th	<u>S/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
1 2 1	Existing: 50%	646	1	356	33	73	752	1	410	25%	37	789	1	429	0	789	1	429
t d Th-Rt	Projected: 50%		1	356				1	410	0%			1	429			1	429
Right	Mitigated: 50%	65	0	0	3	0	68	0	0	0%	0	68	0	0	0	68	0	0
Shared			0	0				0	0	0%			0	0	· ·		0	0
Left		92	1	92	5	5	102	2	56	(5%)	10	112	2	61	0	112	2	61
	<u>E/B RTOR:</u>	02	0	0	Ŭ	Ŭ		0	0	0%			0	0	_		0	0
$\vec{o} \rightarrow \text{Thru}$	Existing: 0%	1144	3	381	58	4	1206	3	402	(10%)	19	1225	3	408	0	1225	3	408
Th-Rt	Projected: 0%		0	0	00	•	.200	0	0	0%		0	0	0	_		0	0
Right	Mitigated: 0%	167	1	167	9	67	243	1	243	5%	7	250	1	250	0	250	1	250
Shared		107	0	0	Ŭ	07	240	0	0	0%	'	200	0	0	, v	200	0	0
← Left		110	1	110	6	5	121	1	121	20%	30	151	1	151	0	151	1	151
⊑ 🛠 Lt-Th	<u>W/B RTOR:</u>	110	0_	0	Ŭ	Ŭ	121	0	0	0%	00	101	0	0		101	0	0
	Existing: 0%	931	2	466	47	4	982	3	328	0%	0	982	3	328	0	982	3	328
$\frac{1}{5}$ $\frac{1}{5}$ Th-Rt	Projected: 0%	001	0	0		-	002	0	0	0%		002	0	0	U U	002	0	0
	Mitigated: 0%	85	1	85	4	1	90	1	90	0%	0	90	1	90	0	90	1	90
→ Shared		00	0	0			30	0	0	0%	0	30	0	0	•	30	0	0
Cri	itical Volumes:	North-	South:	507			North-	South:	629			North-	South:	661		North-	South:	573
		East	-West:	558			East	-West:	523			East	-West:	559		East	-West:	559
			Total:	1065				Total:	1152				Total:	1220			Total:	1132
Volume/ca	pacity (<i>v/</i> c) ratio:			0.747					0.808					0.856				0.794
	SAC adjustment:			0.647					0.708					0.756				0.694
Level	of Service (LOS):			В					С	l			0.1	<u> </u>		ЛОТ		В
									-		, .			<u>E C T</u>	IMP A			0.01.4
	K:\LDT_LDEV\99038001 Washi	-	e\Documents\Tr	affic\Analysis\CMA	Calc Forms\CMAC	Calc_Final_2019.xl:			С	•		to project:		0.048		0	-	0.014
Developed 2005	5-2007 by Ken Aitchis	son								Sign	iticantly	impacted?		YES	Fully	mitigated?		YES

					-									-	1			
Intersect		2014,	EXISTI	NG	2019	PROJEC	TED CUMU	ILATI VE	BASE	_		, WITH PF	ROJECT			TH TRAFF	IC MITI	GATION
North/South Stre	eet:	Critical F	Phases:	2	Ambient C	<u>Growth</u>	Critical	Phases:	2	Ad Ad	jacent	<u>In</u>	<u>Out</u>	<u>Total</u>	-	Critical	Phases:	2
Helms Aven	ue	Ca	apacity:	1500	from:	2014	С	apacity:	1500	Trip	AM	173	83	256			apacity:	1500
East/West Street	t:	Signal S	System:	3	to:	2019	Signal	System:	3	Gen 1	PM	127	174	301	🔲 Use Dist	21 Signal	System:	3
Venice Boul	evard	v/c red	luction:	10%	at:	1.0%	v/c re	duction:	10%	Trip	AM	0	0	0		v/c re	duction:	10%
Analysis Date:	10/29/2015	Opposed P	hasing:	0			Opposed I	Phasing:	0	Gen 2	PM	0	0	0		Opposed F	Phasing:	0
AM Peak:	8.00 AM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	= Total		Lane	2	Total		Lane
5 Loft	0.00740	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume	0%	Volume	Volume	Lanes	Volume		Volume	Lanes	Volume
	N/B RTOR:	2		2	0		2	0	2	0%	0	2		2		2	0	2
			0					0		0%			0	0			0	0
	Existing: 0%	15	0	0	1		16	0	0		0	16	0	0	0	16	0	0
fr fr Th-Rt	Projected: 0%		0	0				0	0	0%			· ·	0			0	0
	Mitigated: 0%	1	0	1	0		1	0	1	0% 0%	0	1	0	1	0	1	0	1
[∠] ↔ Shared			1	<u>18</u> 27				1	<u>19</u> 28	0%			0	<u>19</u> 28			0	19 28
		27	0		1		28	0		0%	0	28	0			28		
	S/B RTOR:		0	0				0	0					0			0	0
O ↓ Thru	Existing: 0%	9	0	0	0		9	0	0	0%	0	9	0	0		9	0	0
	Projected: 0%			0				· ·	0	0%			•	0			•	10
	Mitigated: 0%	12	0 4	12	1		13	0	13		0	13	0	13	0	13	0	13
			1	48				1	<u>50</u>	0%			1	50			1	50
		38	1	38	2		40	1	40	0%	0	40	1	40		40	1	40
	E/B RTOR:		0 0	0				0	0	0%			0 0	0			0	0
$o \rightarrow Ihru$	Existing: 0%	1359	3	453	69	6	1434	3	478	(20%)	17	1451	3	484		1451	3	484
Th-Rt	Projected: 0%		0	0		-		0	0	0%			0	0			0	0
на развита Right	Mitigated: 0%	10	1	10	1		11	1	11	(5%)	4	15	1	15		15	1	15
			0	0				0	0	0%			0	0			0	0
ס < Left		44	1	44	2		46	1	46	0%	0	46	1	46		46	1	46
	W/B RTOR:		0	0				0	0	0%			0	0			0	0
O ← Thru	Existing: 0%	1047	3	349	53	17	1117	3	372	20%	34	1151	3	384		1151	3	384
ts ← Th-Rt	Projected: 0%		0	0				0	0	0%			0	0			0	0
	Mitigated: 0%	62	1	62	3		65	1	65	0%	0	65	1	65		65	1	65
> → Shared			0	0	Ŭ			0	0	0%			0	0			0	0
Cri	itical Volumes:	North-S	South:	50			North-	South:	53			North-	South:	53		North-	South:	53
		East-	West:	497			East	-West:	524			East	-West:	530		East	-West:	530
		-	Total:	547				Total:	577				Total:	583			Total:	583
Volume/car	pacity (<i>v/c</i>) ratio:			0.365					0.385					0.388				0.388
	SAC adjustment:			0.265					0.285					0.288				0.288
	of Service (LOS):			A										Λ				A
Leverc				А					A			P R	OJE	A E C T				А
									0	hanga in	u/a dua							
	K:\LDT_LDEV\99038001 Washi	-	\Documents\Tr	affic\Analysis\CMA	ACalc Forms\CMAC	alc_Final_2019.xl			C	•		to project:		0.003		0		0.003
Developed 2005	5-2007 by Ken Aitchis	son								Sigr	nincantiy i	mpacted?		NO	Fully	mitigated?		N/A

	T			-					1					r			
Intersection No. 4	2014	, EXISTI	NG	2019	, PROJEC	TED CUMU	ILATIVE	BASE	_		, WITH PF	ROJECT		2019, WI	TH TRAFF	IC MITIO	GATION
North/South Street:	Critical	Phases:	2	Ambient C	<u>Growth</u>	Critical	Phases:	2	□ Ad	jacent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	2
Helms Avenue	Ca	apacity:	1500	from:	2014	С	apacity:	1500	Trip	AM	173	83	256	-		apacity:	1500
East/West Street:	Signal S	System:	3	to:	2019	Signal	System:	3	Gen 1	PM	127	174	301	🗖 Use Dist	21 Signal	System:	3
Venice Boulevard	v/c rec	duction:	10%	at:	1.0%	v/c re	duction:	10%	Trip	AM	0	0	0		v/c re	duction:	10%
Analysis Date: 10/29/2015	Opposed P	hasing:	0			Opposed I	Phasing:	0	Gen 2	PM	0	0	0		Opposed I	Phasing: (C
PM Peak: 5:25 PM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	Total		Lane	Adjusted	Total		Lane
	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume		Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
	4	0	4	0		4	0	4	0%	0	4	0	4	0	4	0	4
Lt-Th <u>N/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
C 1 Thru Existing: 0%	2	0	0	0		2	0	0	0%	0	2	0	0	0	2	0	0
D Left Un ↓ Lt-Th <u>N/B RTOR:</u> O ↑ Thru Existing: 0% U1 1 Th-Rt Projected: 0% O C Right Mitigated: 0%		0	0				0	0	0%			0	0			0	0
	11	0	11	1		12	0	12	0%	0	12	0	12	0	12	0	12
↔ Shared		1	17				1	18	0%			1	18			1	18
₽ └→ Left	37	0	37	2		39	0	39	0%	0	39	0	39	0	39	0	39
S/B RTOR:		0	0	_			0	0	0%			0	0			0	0
$\begin{array}{c c} & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & &$	5	0	0	0		5	0	0	0%	0	5	0	0	0	5	0	0
Image: squareImage: squareProjected: 0%		0	0	Ŭ		Ŭ	0	0	0%		Ŭ	0	0	- V	Ŭ	0	0
	34	0	34	2		36	0	36	0%	0	36	0	36	0	36	0	36
↔Shared		1	76	2		00	1	80	0%	U	00	1	80	V	00	1	80
^ Left	37	1	37	2		39	1	39	0%	0	39	1	39	0	39	1	39
$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \end{array}\end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ $	51	0	0	۷		39	0	0	0%	U	39	0	0	U	39	0	0
$\vec{Q} \rightarrow \text{Thru}$ Existing: 0%	1272	3	424	65	19	1356	3	452	(20%)	34	1390	3	463	0	1390	3	463
$\overrightarrow{H} \rightarrow \text{Th-Rt}$ Projected: 0%	1212	0	0	05	19	1550	0	0	0%	54	1390	0	0	U	1390	0	0
Right Mitigated: 0%	34	1	34	2		36	1	36	(5%)	8	11	1	44	0	11	1	44
Generation Shared	- 34	0	0	2		30	0	0	0%	0	44	0	0	U	44	0	0
_ C Left	45	1	45	0		47	1	47	0%	0	47	1	47	0	47	1	47
G ✓ Lt-Th <u>W/B RTOR:</u>	45	0	0	2		47	0	0	0%	0	47	0	0	U	47	0	0
O ← Thru Existing: 0%	4400	3	377	50	10	4000	3	400	20%	05	4005	3	408	0	4005	3	408
$\frac{1}{5}$ $\stackrel{\text{Th-Rt}}{\leftarrow}$ Th-Rt Projected: 0%	1132	0	0	58	10	1200	0	0	0%	25	1225	0	0	0	1225	0	0
$ \overset{O}{\underset{1}{\rightarrow}} \overset{\leftarrow}{\underset{1}{\leftarrow}} \text{Right} \qquad Mitigated: 0\% $	10	1	13				1	14	0%	0		1	14	0		1	14
> → Shared	13	0	0	1		14	0	0	0%	0	14	0	0	0	14	0	0
Critical Volumes:	North-	South:	87			North-	South:	91			North-	South:	91		North-	South:	91
Childar Volumes.		-West:	469				-West:	499				-West:	511			-West:	511
		Total:	556				Total:	591				Total:	602			Total:	602
		TOtal.					TOLAI.					Total.				Tulai.	
Volume/capacity (v/c) ratio:			0.371					0.394					0.401				0.401
v/c less ATSAC adjustment:			0.271					0.294					0.301				0.301
Level of Service (LOS):			А					А					А				А
											<u>P R</u>	OJE	ЕСТ	IMPA	<u> </u>		
Filename: K:\LDT_LDEV\99038001 Wash	hington & National Lowe	e\Documents\Tr	affic\Analysis\CMA	ACalc Forms\CMAC	alc_Final_2019.xl:			С	hange in	v/c due	to project:		0.007	$\Delta v/c$ after	mitigation:	(0.007
Developed 2005-2007 by Ken Aitchi	ison								Sigr	nificantly	impacted?		NO	Fully	mitigated?		N/A
									•						-		

AM Peak: 8: 00 AM Volume Lanes <						-									-	1			
Cattarugus Avenue Capacity 1500 Inom: 2014 Capacity 1500 Ino: 2014 Capacity 1500 Capacity 1500			2014	, EXISTI	NG	2019	, PROJEC	TED CUMU	JLATI VE	BASE			9, WITH PF	ROJECT		2019, WI	TH TRAFF	IC MITI	GATION
Lat Mest Street: Signal System 3 to: 2010 Signal System 2 to: 2107 174 301 Output Street: 2010 Signal System 2 or rot 2010 Signal System 2 Signal System 2 <td></td> <td></td> <td>Critical I</td> <td>Phases:</td> <td>2</td> <td>Ambient (</td> <td><u>Growth</u></td> <td>Critical</td> <td>Phases:</td> <td>2</td> <td>☐ Ad</td> <td>jacent</td> <td><u>In</u></td> <td></td> <td></td> <td></td> <td>Critical</td> <td>Phases:</td> <td>2</td>			Critical I	Phases:	2	Ambient (<u>Growth</u>	Critical	Phases:	2	☐ Ad	jacent	<u>In</u>				Critical	Phases:	2
Vertice Boulevard vic reduction: 10% at: 1.0% vic reduction: 7% FM 0 0 0 vic reduction: 7% FM M 0 0 0 vic reduction: 7% FM M 0	Cattaraugus	s Avenue	Ca	apacity:	1500	from:	2014	С	Capacity:	1500	Trip	AM	173	83		-		apacity:	1500
Analysis Date: 10/29/2015 Opposed Phasing: 0 Pha	East/West Stree	et:	0	2		to:	2019	Signal	System:	2	Gen 1	PM	127	174	301	🔲 Use Dist	21 Signal 9	System:	2
AM Peak: 8:00 AM Counts Lane Volume Lane Value Value	Venice Boul	levard	v/c rec	duction:	10%	at:	1.0%	v/c re	duction:	7%	Trip	AM	0		0		v/c red	duction:	7%
Alm Pedar: 3:00 Alm Volume Lanes Volume Lanes <td>Analysis Date:</td> <td>10/29/2015</td> <td>Opposed P</td> <td>hasing:</td> <td>0</td> <td></td> <td></td> <td>Opposed I</td> <td>Phasing:</td> <td>0</td> <td>Gen 2</td> <td>PM</td> <td>0</td> <td>0</td> <td>0</td> <td></td> <td>Opposed F</td> <td>hasing:</td> <td>0</td>	Analysis Date:	10/29/2015	Opposed P	hasing:	0			Opposed I	Phasing:	0	Gen 2	PM	0	0	0		Opposed F	hasing:	0
Total Data Data <thdata< th=""> Data Data <th< td=""><td>AM Peak</td><td>8.00 AM</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td>5</td><td></td><td></td><td>Lane</td></th<></thdata<>	AM Peak	8.00 AM										-				5			Lane
1 L1:Th WB RTOR: 26 0 1 27 0 0 27 0 0 27 0 0 27 0 0 27 0 0 392 0	5 Loft	01007411	Volume			Growth	Projects	Volume	_			Volume	Volume			Volume	Volume		
2 +-Shared 24 423 1 25 445 0 0 25 445 0 0 25 445 0 0 1445 0 0 25 445 0 0 25 445 0 0 140 0 140 0 180 0 101 0 0 0 101 0 0 0 101 0 0 0 101 0 0 101 0 0 101 0 0 101 0 0 101 0 0			26			1		27	· · ·			0	27	· · · · ·		0	27		21
2 +-Shared 24 423 1 25 445 0 0 25 445 0 0 25 445 0 0 1445 0 0 25 445 0 0 25 445 0 0 140 0 140 0 180 0 101 0 0 0 101 0 0 0 101 0 0 0 101 0 0 101 0 0 101 0 0 101 0 0 101 0 0									0	0				· · · · ·	0			0	0
2 +-Shared 24 423 1 25 445 0 0 25 445 0 0 25 445 0 0 1445 0 0 25 445 0 0 25 445 0 0 140 0 140 0 180 0 101 0 0 0 101 0 0 0 101 0 0 0 101 0 0 101 0 0 101 0 0 101 0 0 101 0 0		Ũ	373		· · · · ·	19		392	0	0		0	392	· · · ·	0	0	392	0	0
2 +-Shared 24 423 1 25 445 0 0 25 445 0 0 25 445 0 0 1445 0 0 25 445 0 0 25 445 0 0 140 0 140 0 180 0 101 0 0 0 101 0 0 0 101 0 0 0 101 0 0 101 0 0 101 0 0 101 0 0 101 0 0					• •				•	0					0			•	0
Sched 171 0 171 9 180 180 180 180 180 180 180 180 180 0 0		Mitigated: 0%	24	0		1		25	0			0	25			0	25	0	
Image: Full-Th SPR RTOR: 171 0 0 9 180 0 0 180 0 0 180 0 0 180 0 0 180 0 0 180 0 0 180 0 0 180 0 0 180 0<				1					1			_		-				1	
Image: Shared Image: Shared <thimage: shared<="" th=""> <thimage: shared<="" t<="" td=""><td></td><td></td><td>171</td><td>- L</td><td></td><td>9</td><td></td><td>180</td><td>- 1</td><td>180</td><td></td><td>0</td><td>180</td><td>L</td><td>180</td><td>0</td><td>180</td><td>- L</td><td>180</td></thimage:></thimage:>			171	- L		9		180	- 1	180		0	180	L	180	0	180	- L	180
Image: Shared Image: Shared <thimage: shared<="" th=""> <thimage: shared<="" t<="" td=""><td>Lt-Th</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0</td><td></td><td></td><td></td><td>· · · · ·</td><td>0</td><td></td><td></td><td></td><td>0</td></thimage:></thimage:>	Lt-Th									0				· · · · ·	0				0
Image: Shared Image: Shared <thimage: shared<="" th=""> <thimage: shared<="" t<="" td=""><td>⊖ ↓ Thru</td><td>°,</td><td>96</td><td>~</td><td>• •</td><td>5</td><td></td><td>101</td><td>· · · ·</td><td>0</td><td></td><td>0</td><td>101</td><td>· · · · ·</td><td>0</td><td>0</td><td>101</td><td>~</td><td>0</td></thimage:></thimage:>	⊖ ↓ Thru	°,	96	~	• •	5		101	· · · ·	0		0	101	· · · · ·	0	0	101	~	0
Image: Shared Image: Shared <thimage: shared<="" th=""> <thimage: shared<="" t<="" td=""><td>t + Th-Rt</td><td>3</td><td></td><td></td><td>• •</td><td></td><td></td><td></td><td></td><td>0</td><td></td><td></td><td></td><td>· · · ·</td><td>•</td><td></td><td></td><td></td><td>0</td></thimage:></thimage:>	t + Th-Rt	3			• •					0				· · · ·	•				0
	o → Right	Mitigated: 0%	20	0		1		21	0			8	29			0	29	0	
² ± Lt-Th ² ± ± Lt-	Shared			1					1			•				· ·		1	
C C O	Left		59	1		3		62	1	62		4	66		66	0	66	· · · · · · · · · · · · · · · · · · ·	66
Right Mitigated: 0% 8 1 8 0 8 1 8 0% 0 8 1 8 0 8 1 8 0 8 1 8 0% 0 8 1 8 0 8 1 8 0 8 1 8 0 8 1 8 0 8 1 8 0 8 1 8 0 0 8 1 <th1< th=""> <th1< th=""> 1</th1<></th1<>	ਪੁੱ - ∠ Lt-Th	<u>E/B RTOR:</u>		· · · -		Ŭ			•	-				-	`				0
Right Mitigated: 0% 8 1 8 0 8 1 8 0% 0 8 1 8 0 8 1 8 0 8 1 8 0% 0 8 1 8 0 8 1 8 0 8 1 8 0 8 1 8 0 8 1 8 0 8 1 8 0 0 8 1 <th1< th=""> <th1< th=""> 1</th1<></th1<>	o → Thru	Existing: 0%	1347	3		69	6	1422	L. L			13	1435	L		0	1435		478
Right Mitigated: 0% 8 1 8 0 8 1 8 0% 0 8 1 8 0 8 1 8 0 8 1 8 0% 0 8 1 8 0 8 1 8 0 8 1 8 0 8 1 8 0 8 1 8 0 8 1 8 0 0 8 1 <th1< th=""> <th1< th=""> 1</th1<></th1<>	₩ Th-Rt	Projected: 0%	1011	0	· · · · ·	00	Ŭ	1122	0	0	0%	10	1100	0	•	, v	1100	0	0
Shared 0 <td>[®] → Right</td> <td>Mitigated: 0%</td> <td>8</td> <td>1</td> <td>8</td> <td>0</td> <td></td> <td>8</td> <td>1</td> <td>8</td> <td></td> <td>0</td> <td>8</td> <td>1</td> <td>8</td> <td>0</td> <td>8</td> <td>1</td> <td>8</td>	[®] → Right	Mitigated: 0%	8	1	8	0		8	1	8		0	8	1	8	0	8	1	8
0 7 Lt-Th W/B RTOR: 176 0 0 185 0 0 185 0 0 185 0 0 185 0 0 0 185 0 0 0 185 0 0 185 0 0 185 0 0 185 0 0 0 185 0 0 0 185 0 0 185 0 0 0 185 0 0 0 185 0 0 0 185 0 0 0 0 195 0 0 0 1165 3 388 15% 26 1191 3 397 0 1191 0	→ Shared		U	0	v	0				0	0%	U	0				0	<u> </u>	0
Image: Stating: 0% 1092 3 364 56 17 1165 3 388 15% 26 1191 3 397 0 1191 3 397 0 1191 3 397 0 1191 3 397 0 1191 3 397 0 1191 3 397 0 1191 3 397 0 1191 3 397 0 1191 3 397 0 1191 0 <	← Left		176	1	176	Q		185	1	185	0%	0	185	1	185	0	185	1	185
Nitigated: 0% 195 1 195 1 195 10 205 1 205 0% 0 205 1 205 0 0 0 205 1 205 0 0 0 0 205 1 205 0% 0 0 0 205 1 205 0<	⊑ 🛠 Lt-Th	W/B RTOR:	170	0	· · · · · ·	5		105	0	· · · ·	0%	<u> </u>	105		•	•	100	0	0
Nitigated: 0% 195 1 195 1 195 10 205 1 205 0% 0 205 1 205 0 0 0 205 1 205 0 0 0 0 205 1 205 0% 0 0 0 205 1 205 0<	õ ← Thru	Existing: 0%	1002	3	364	56	17	1165	3	388		26	1101	3	397	0	1101	3	397
→ Shared 100 0 100 0 100 0 0 100 0 100 0	$\frac{1}{T_{S}} \leftarrow \text{Th-Rt}$	Projected: 0%	1052	0		50	17	1100	0	· · · ·		20	1101	0	-	•	1101	0	0
→ Shared 100 0 100 0 100 0 0 100 0 100 0	$\stackrel{\Theta}{\geq} \stackrel{\frown}{\leftarrow} \text{Right}$	Mitigated: 0%	105	1	195	10		205	1	205	0%	0	205	1	205	0	205	1	205
East-West:625East-West:659East-West:663East-West:663Volume/capacity (v/c) ratio:1219Total:1283Total:1288Total:1288Volume/capacity (v/c) ratio:0.8130.8130.8550.8550.8580.8580.858v/c less ATSAC adjustment:0.7130.7130.7850.7880.788Level of Service (LOS):CCCCCCFilename:KLDT_LDEVP9038001 Washington & National LowelDocumentsTrafficAnalysis/LMACat_Forms/CMACat_Final_2019.xtChange in v/c due to project:0.003Av/c after mitigation:0.003			190	0	0	10		205	0	0	0%	U	205	0	0	•	203	0	0
East-West:625East-West:659East-West:663East-West:663Volume/capacity (v/c) ratio:1219Total:1283Total:1288Total:1288Volume/capacity (v/c) ratio:0.8130.8130.8550.8550.8580.8580.858v/c less ATSAC adjustment:0.7130.7130.7850.7880.788Level of Service (LOS):CCCCCCFilename:KLDT_LDEVP9038001 Washington & National LowelDocumentsTrafficAnalysis/LMACat_Forms/CMACat_Final_2019.xtChange in v/c due to project:0.003Av/c after mitigation:0.003		itical Volumes:	North-	South:	594			North-	-South:	624			North-	South:	624		North-	South:	624
Total: 1219 Total: 1283 Total: 1288 Total: 1288 Total: 1288 Total: 1288 Total: 1288 1288 Total: 1288 Total: 1288 Total: 1288 1288 Total: 1288 Total: 1288 1288 0.855 0.858 0.858 0.858 0.858 0.858 0.858 0.858 0.858 0.858 0.858 0.788 0.																			663
Volume/capacity (v/c) ratio: 0.813 0.813 0.855 0.858 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1288</td></th<>																			1288
v/c less ATSAC adjustment: 0.713 0.785 0.785 0.788 <th< td=""><td>Volume/ca</td><td>nacity (v/c) ratio</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	Volume/ca	nacity (v/c) ratio																	
Level of Service (LOS): C C C Filename: K1LDT_LDEVI99038001 Washington & National LowelDocuments\TrafficAnalysis\CMACalc_Frank_2019.xt; Change in v/c due to project: 0.0003 $\Delta v/c$ after mitigation: 0.0003																			
PROJECT IMPACT Filename: K3LDT_LDEV99038001 Washington & National LowelDocuments\Traffic\Analysis\CMACalc_Froms\CMACalc_Final_2019.xt; Change in v/c due to project: 0.003 $\Delta v/c$ after mitigation: 0.003		-																	
Filename: K:\LDT_LDEV99038001 Washington & National Lowe\Documents\Traffic\Analysis\CMACalc Forms\CMACalc_Final_2019.xl: Change in v/c due to project: 0.003 \Delta v/c after mitigation: 0.003	Level	of Service (LOS):			C					C							T		C
Developed 2005-2007 by Ken Aitchison Significantly impacted? NO Fully mitigated? N/ μ			-	e\Documents\Tr	affic\Analysis\CMA	Calc Forms\CMAC	Calc_Final_2019.xl	!		С	•						0		
	Developed 200	5-2007 by Ken Aitchis	son								Sigr	nificantly	impacted?		NO	Fully	mitigated?		N/A

-		-			r										1			
	<u>tion No. 5</u>		EXISTI				TED CUMU					, WITH PF			2019, WI	TH TRAFF		
North/South Str	reet:	Critical F	Phases:	2	Ambient C	<u>Growth</u>	Critical	Phases:	2		acent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	2
Cattaraugu	is Avenue	Ca	apacity:	1500	from:	2014		apacity:		Trip	AM	173	83	256	_	С	apacity:	1500
East/West Stree	et:	Signal S	System:	3	to:	2019	Signal S	System:	2	Gen 1	PM	127	174	301	Use Dist	21 Signal	System: 2	2
Venice Bou	levard	v/c red	luction:	10%	at:	1.0%	v/c red	duction:	7%	Trip	AM	0	0	0		v/c re	duction:	7%
Analysis Date:	10/29/2015	Opposed P	hasing:	0			Opposed P	hasing:	0	Gen 2	PM	0	0	0		Opposed F	Phasing: (C
PM Peak:	5:25 PM	Counts Volume	Lanes	Lane Volume	+ Amb. Growth	+ Area Projects	= Total Volume	Lanes	Lane Volume		Project /olume	Total Volume	Lanes	Lane Volume	Adjusted Volume	Total Volume	Lanes	Lane Volume
って Left			0	11	4	-	40	0	12	0%	0	40	0	12	0	40	0	12
Ğ ← Lt-Th	N/B RTOR:	11	0	0	1		12	0	0	0%	U	12	0	0	0	12	0	0
Q ↑ Thru	Existing: 0%	70	0	0			00	0	0	0%	_	00	0	0	•	00	0	0
∰ hr-Rt	Projected: 0%	79	0	0	4		83	0	0	0%	0	83	0	0	0	83	0	0
pun ↑ Lt-Th oq ↑ Thru un ↑ Th-Rt or Right	Mitigated: 0%		0	30			~~~	0	32	0%			0	32	_		0	32
Z ↔ Shared		30	1	120	2		32	1	126	0%	0	32	1	126	0	32	1	126
U left			0	307				0	323	0%	_		0	323	_		0	323
pun b Lt-Th oq ↓ Thru utru ↓ Th-Rt oy ↓ Right	S/B RTOR:	307	0	0	16		323	0	0	0%	0	323	0	0	0	323	0	0
Q ↓ Thru	Existing: 0%		Ō	Ő				0	0	0%			0	0			Ō	0
⊈ ← Th-Rt	Projected: 0%	150	Ő	Ő	8		158	Ő	0 0	0%	0	158	0	0	0	158	Ő	0
Right	Mitigated: 0%		0	21				0	22	5%			0	28			Ő	28
Shared	Williguted: 070	21	1	478	1		22	1	502	0%	6	28	1	508	0	28	1	508
→ Left			1	56				1	59	(5%)			1	67			1	67
LCH	E/B RTOR:	56	0	0	3		59	0	0	0%	8	67	0	07	0	67	0	07
Lt-Th → Thru ty → Th-Rt	Existing: 0%		3	453				3	483	(15%)			3	491			3	491
$0 \rightarrow \text{Thru}$	U U	1360	၁၂ 0	455	69	19	1448	၁၂ 0	403	0%	26	1474	0 0	491	0	1474	0 0	491
trend → Th-Rt	Projected: 0%		0					0					0	•			0	-
	Mitigated: 0%	23	1	23	1		24	1	24	0%	0	24	1	24	0	24	1	24
→ Shared			0	0				0	0	0%			0	0			0	0
o ← Left		99	1	99	5		104	1	104	0%	0	104	1	104	0	104	1	104
D ↓ Lt-Th	W/B RTOR:		0	0				0	0	0%			0	0			0	0
$ \begin{array}{c} 0 \leftarrow \text{Thru} \\ \text{dg} \leftarrow \text{Th-Rt} \\ \text{dg} \end{array} $	Existing: 0%	1042	3	347	53	10	1105	3	368	15%	19	1124	3	375	0	1124	3	375
$\frac{1}{100}$ $\frac{1}{100}$ Th-Rt	Projected: 0%		0	0		_		0	0	0%			0	0			0	0
$\overset{O}{\underset{t}{>}} \overset{\leftarrow}{\underset{t}{\sim}} \operatorname{Right}$	Mitigated: 0%	62	1	62	3		65	1	65	0%	0	65	1	65	0	65	1	65
> → Shared			0	0				0	0	0%			0	0			0	0
C	ritical Volumes:	North-S	South:	508			North-	South:	534			North-	South:	540		North-	South:	540
		East-	West:	552			East	-West:	587			East	-West:	596		East	-West:	596
		-	Total:	1060				Total:	1121				Total:	1135			Total:	1135
Volume/ca	apacity (<i>v/c</i>) ratio:			0.707					0.747					0.757				0.757
	TSAC adjustment:			0.607					0.677					0.687				0.687
	of Service (LOS):			B					B					B				B
Level				D					D	1		חח	OJE	ECT		νст		D
									~	honest				-				0 010
Filename:	K:\LDT_LDEV\99038001 Washi	-	\Documents\Tr	affic\Analysis\CMA	ACalc Forms\CMAC	alc_Final_2019.xl			C			to project:		0.010		0	(0.010
Developed 200	05-2007 by Ken Aitchis	son								Sign	iricantly	impacted?		NO	Fully	mitigated?		N/A

Intersect	tion No. 6	2014	, EXIST	ING	2019,	PROJEC	TED CUMU	ILATIVE	BASE	_		, WITH PF	ROJECT		2019, WI	TH TRAFFI	C MITI	GATION
North/South Str	reet:	Critical	Phases:	3	Ambient G	<u>Frowth</u>	Critical	Phases:	3	□ Ad	acent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	3
Robertson B	Ivd/Higuera	Ca	apacity:	1425	from:	2014	C	apacity:	1425	Trip	AM	173	83	256	-	C	apacity:	1425
East/West Stree	et:	Signal S	System:	2	to:	2019	Signal S	System:	2	Gen 1	PM	127	174	301	🛛 Use Dist	21 Signal S	System:	2
Washingtor	n Boulevard	v/c red	duction:	7%	at:	1.0%	v/c red	duction:	7%	Trip	AM	0	0	0		v/c red	duction:	7%
Analysis Date:	10/29/2015	Opposed P	Phasing:	0			Opposed F	Phasing:	0	Gen 2	PM	0	0	0		Opposed F	hasing:	0
AM Peak:	8:00 AM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	= Total		Lane	Adjusted	Total		Lane
	0.007111	Volume	Lanes		Growth	Projects	Volume	Lanes	Volume		/olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
Left		62	1	62	3	12	77	1	77	0%	0	77	1	77	0	77	1	77
p ∩ Left Lt-Th o ↑ Thru un ↑ Th-Rt o ← Right	<u>N/B RTOR:</u>		0	0	-			0	0	0%			0	0			0	0
Q ↑ Thru	Existing: 0%	315	1	315	16		331	1	331	0%	0	331	1	331	0	331	1	331
£ i≁Th-Rt	Projected: 0%		0	0				0	0	0%			0	0			0	0
	Mitigated: 0%	124	1	124	6		130	1	130	0%	0	130	1	130	0	130	1	130
[∠] ↔ Shared			0	0	-			0	0	0%			0	0	· ·		0	0
⊡ [_] Left		57	1	57	3	17	77	1	77	0%	0	77	1	77	0	77	1	77
b→Lt-Th	S/B RTOR:	01	0	0	•			0	0	0%			0	0	· · ·		0	0
pun b Lt-Th oquin d Thru un d Th-Rt ro d Right	Existing: 0%	114	1	114	6		120	1	120	0%	0	120	1	120	0	120	1	120
ਦੂ ₊੍ਰ Th-Rt	Projected: 0%		0	0	•		120	0	0	0%	•	120	0	0	v	120	0	0
ເວັ ↓ Right	Mitigated: 0%	38	1	38	2		40	1	40	0%	0	40	1	40	0	40	1	40
[™] ↔ Shared		50	0	0	2		40	0	0	0%	U	40	0	0	U	40	0	0
J Left		51	1	51	3		54	1	54	0%	0	54	1	54	0	54	1	54
₽ - Lt-Th	E/B RTOR:	51	0	0	3		54	0	0	0%	U	54	0	0	U	54	0	0
tr-Lt-Lt tro tro tro tro tro tro tro tr	Existing: 50%	4004	1	600	50	00	4005	1	688	5%	0	4044	1	692		4044	1	692
ਊ → Th-Rt	Projected: 50%	1091	1	600	56	88	1235	1	688	0%	9	1244	1	692	0	1244	1	692
$\stackrel{o}{\overset{O}{\overset{O}{\overset{O}{\overset{O}{\overset{O}{\overset{O}{\overset{O}{\overset$	Mitigated: 50%	400	0	0		00		0	0	0%			0	0			0	0
Generation Shared		109	0	0	6	26	141	0	0	0%	0	141	0	0	0	141	0	0
C L oft			1	111				1	117	0%	_		1	117	_		1	117
$p \leftarrow Thru$	W/B RTOR:	111	0	0	6		117	0	0	0%	0	117	0	0	0	117	0	0
o ← Thru	Existing: 50%		2	566				2	645	0%			2	645			2	645
three to three to three	Projected: 50%	1131	0	0	58	102	1291	ō	0	0%	0	1291	ō	0	0	1291	0	0
^O ← Right	Mitigated: 50%		1	180		_		1	186	(5%)			1	190			1	190
Shared		208	Ó	0	11	5	224	0	0	0%	4	228	O	0	0	228	0	0
	ritical Volumes:	North-	South	372			North	South:	408			North	South:	408		North-	South	408
	nucar volumes:			711					408 804					408 809				408 809
			-West:					-West:					-West:				-West:	
			Total:	1083				Total:	1212				Total:	1217			Total:	1217
Volume/ca	apacity (<i>v/</i> c) ratio:			0.760					0.851					0.854				0.854
v∕c less AT	SAC adjustment:			0.690					0.781					0.784				0.784
Level	of Service (LOS):			В					С					С				С
												<u>P</u> R	2 O J E	ЕСТ	IMPA	A C T		
Filename:	K:\LDT_LDEV\99038001 Washi	ington & National Low	e\Documents\T	raffic\Analysis\CMA	ACalc Forms\CMAC	alc_Final_2019.xl:			С	hange in	v∕c due	to project:		0.003	$\Delta v/c$ after	mitigation:		0.003
	5-2007 by Ken Aitchis	-		,						•		impacted?		NO		mitigated?		N/A
	-									0.gr								

Intersection No. 6			EXIST				TED CUMU			_		9, WITH PF			2019, WI	TH TRAFF		
North/South Street:		Critical F			Ambient C			Phases:	-	Adj		<u>In</u>	<u>Out</u>	<u>Total</u>			Phases:	
Robertson Blvd/Higue	era		apacity:		from:	2014		apacity:		Trip	AM	173	83	256			apacity:	
East/West Street:		Signal S	,		to:	2019	0	System:		Gen 1	PM	127	174		Use Dist	0	System:	
Washington Bouleva			luction:		at:	1.0%		duction:		Trip	AM	0	0	0			duction:	
Analysis Date: 10/29/20	15	Opposed Pl	hasing:				Opposed I	Phasing:		Gen 2	PM	0	0	0		Opposed F	Phasing:	
PM Peak: 5:00 PM	N	Counts Volume	Lanes	Lane Volume	+ Amb.	+ Area Projects	= Total Volume	Lanes	Lane Volume		Project /olume	Total Volume	Lanes	Lane Volume	Adjusted Volume	Total Volume	Lanes	Lane Volume
5 Loft			1	41		-		1 Lanes	68	0%			<u>Lanes</u>	68			Laries	68
$\subseteq \uparrow$ Lt-Th <u>N/B RTOR:</u>		41	0	0	2	25	68	0	0	0%	0	68	0	0	0	68	0	00
Q ↑ Thru Existing: 0%			1	229				1	241	0%			1	241			1	241
Projected: 0%	6	229	0	0	12		241	0	0	0%	0	241	0	0	0	241		0
p 1 Left Un ↓ Lt-Th Oq ↓ Thru Existing: 0% Projected: 0% O ← Right			1	116				1	122	0%			1	122			1	122
Z Shared	0	116	0	110	6		122	0	0	0%	0	122	0	0	0	122		0
L left			1	68				1	83	0%			1	83			1	83
B → Lt-Th S/B RTOR: Q ↓ Thru Existing: 0%		68	0	0	3	12	83	0	0	0%	0	83	0	0	0	83	0	0
C ↓ Thru Existing: 0%			1	135				1	142	0%			1	142			1	142
Th-Rt Projected: 09	6	135	Ġ	100	7		142	0	0	0%	0	142	0	0	0	142		0
H → Th-Rt Projected: 0% A Right Mitigated: 0%			1	52				1	55	0%			1	55			1	55
Shared	0	52	0	0	3		55	0	0	0%	0	55	0	0	0	55		0
→ Left			1	85				1	89	0%			1	89			1	89
		85	0	0	4		89	0	0	0%	0	89	0	0	0	89	0	0
$\begin{array}{c} \label{eq:product} \begin{tabular}{lllllllllllllllllllllllllllllllllll$	Ś		1	613				1	712	5%			1	715			1	715
$rac{1}{10}$ rac		1144	1	613	58	125	1327	1	712	0%	6	1333	1	715	0	1333	1	715
Right Mitigated: 50			0	013				0	0	0%			0	0	-		0 0	0
Shared	/0	82	0	0	4	10	96	0	0	0%	0	96	0	0	0	96	0	0
_ C Left			1	130				1	137	0%			1	137			1	137
$\Box \checkmark$ Lt-Th W/B RTOR:		130	0	0	7		137	0	0	0%	0	137	0	0	0	137	0	0
$\begin{array}{c} \begin{array}{c} & & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ $			2	436				2	518				2	518			2	518
Th-Rt Projected: 50		871	0		44	121	1036	0	0	0%	0	1036	0	010	0	1036	0	010
A Right Mitigated: 50 th			1	222				1	249	(5%)			1	258			1	258
Shared	/0	256	0	0	13	22	291	0	240	0%	9	300	0	200	0	300	0	200
		North (297			- الم سفا-		324	070		N anti-		324		- الم سفا-	<u> </u>	324
Critical Volum	ies:	North-S						South:				North-					South:	
			West:	743				-West:	848				-West:	851			-West:	851
			Total:	1040				Total:	1173				Total:	1176			Total:	1176
Volume/capacity (v/c) r				0.730					0.823					0.825				0.825
v/c less ATSAC adjustment	nent:			0.660					0.753					0.755				0.755
Level of Service (Lo	OS):			В					С					С				С
												<u>P R</u>	OJE	ЕСТ	IMPA	A C T		
Filename: K:\LDT_LDEV\990380	01 Washing	gton & National Lowe	\Documents\Tr	raffic\Analysis\CMA	Calc Forms\CMAC	alc_Final_2019.xl:			С	hange in	<i>v∕c</i> due	to project:		0.002	$\Delta v/c$ after	mitigation:		0.002
Developed 2005-2007 by Ken	Aitchiso	on								Sign	ificantly	impacted?		NO	Fully	mitigated?		N/A

		0014	EVLOT		0010				DAGE		0040				0010 144			0.4.71.0.11
Intersect			, EXIST				TED CUMU			🛛 Adj		, WITH PF		T	2019, WI	TH TRAFF		
North/South Stre			Phases:		Ambient G			Phases:				<u>In</u>	Out	<u>Total</u>			Phases:	
National Bo			apacity:		from:	2014		apacity:		Trip	AM	173	83	256			apacity:	
East/West Stree	-	-	System:		to:	2019	•	System:		Gen 1	PM	127	174	301	Use Dist	0	System:	
Washington			duction:		at:	1.0%		duction:		Trip	AM	0	0	0			duction:	
Analysis Date:	10/29/2015	Opposed F	hasing:				Opposed P	hasing:		Gen 2	PM	0	0	0		Opposed I	hasing:	
AM Peak:	8:00 AM	Counts Volume	Lanes	Lane Volume	+ Amb. Growth	+ Area Projects	= Total Volume	Lanes	Lane Volume		Project Volume	= Total Volume	Lanes	Lane Volume	Adjusted Volume	Total Volume	Lanes	Lane Volume
רא אין Left			2	117		1		2	159	5%			2	164			2	164
⊑ ∽ Lt-Th	N/B RTOR:	213	0	0	11	66	290	0	0	0%	8	298	0	0	0	298	0	0
Q ↑ Thru	Existing: 50%		1	385				2	378	5%			2	382			2	382
G Th-Rt	Projected: 50%	668	1	385	34	53	755	ō	0,0	0%	9	764	0	002	0	764	0	002
	Mitigated: 50%		0	000				1	34	0%			1	34			1	34
Z Shared	Wittigated. 5070	102	0	0	5	2	109	0	J 4	0%	0	109	0	0	0	109		0
Lloft			2	53				2	88	(15%)			2	95			2	95
U .	S/B RTOR:	97	0	0	5	58	160	0	00	0%	13	173	0	0	0	173	0	33
$O \downarrow Thru$	Existing: 50%		1	341				1	414	(10%)			1	423			2	351
G ↓ Third L ← Th-Rt	Projected: 50%	573	1	341	29	90	692	1	414	0%	9	701	1	423	0	701	0	331
	J			341					414	5%			0	423			1	103
(A)	Mitigated: 50%	109	0	0	6	21	136	0	0	0%	9	145	0	0	0	145		103
			1	65				1	75	5%			1	84			1	84
LOIT		65	1		3	7	75	1			9	84			0	84	•	84
5	E/B RTOR:		0	0				0	0	0%			0	0			0	0
$\vec{O} \rightarrow \text{Thru}$	Existing: 50%	862	2	431	44	30	936	2	468	0%	0	936	2	468	0	936	2	468
ts → Th-Rt	Projected: 50%		0	0				0	0	0%			0	0			0	0
	Mitigated: 50%	220	1	114	11	37	268	1	123	0%	0	268	1	119	0	268	1	119
→ Shared			0	0		_		0	0	0%			0	0			0	0
ס < ^C Left		142	1	142	7	1	150	1	150	0%	0	150	1	150	0	150	1	150
- - - - - - - - - -	<u>W/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
Thru ts ← Thru ts	Existing: 0%	1081	2	400	55	53	1189	2	455	15%	26	1215	2	464	0	1215	2	464
$\frac{1}{10}$ $\frac{1}{10}$ Th-Rt	Projected: 0%		1	400				1	455	0%			1	464			1	464
	Mitigated: 0%	118	0	0	6	53	177	0	0	0%	0	177	0	0	0	177	0	0
> → Shared			0	0				0	0	0%			0	0			0	0
Cr	itical Volumes:	North-	South:	458			North-	South:	573			North-	South:	587		North-	South:	514
		East	-West:	573			East	-West:	618			East	-West:	618		East	-West:	618
			Total:	1031				Total:	1192				Total:	1205			Total:	1133
Volume/ca	pacity (v/c) ratio:			0.750					0.867					0.876				0.824
	SAC adjustment:			0.680					0.797					0.806				0.754
	of Service (LOS):			0.080 B					C									C 0.754
Level	or Service (LUS):			Ď					U				OJE	D ECT		νст		U
									~		1. 1			-				0.040
	K:\LDT_LDEV\99038001 Washi	-	e\Documents\T	affic\Analysis\CMA	Calc Forms\CMAC	alc_Final_2019.xl:			С	•		to project:		0.009	$\Delta v/c$ after	0	_	0.043
Developed 2008	5-2007 by Ken Aitchis	son								Sign	iticantly	impacted?		NO	Fully	mitigated?		N/A

	<u>tion No. 7</u>		, EXISTI				TED CUMU					, WITH PF				TH TRAFF		
North/South Str			Phases:		Ambient G			Phases:		🛛 Adj		<u>In</u>	<u>Out</u>	<u>Total</u>			Phases: •	
National Bo			apacity:		from:			apacity:		Trip	AM	173	83	256			apacity:	
East/West Stree		0	System:		to:	2019	Signal	System:	2	Gen 1	PM	127	174	301	Use Dist	21 Signal	System: 2	2
	n Boulevard	v/c red	duction:	7%	at:	1.0%		duction:		Trip	AM	0	0	0		v/c ree	duction:	7%
Analysis Date:	10/29/2015	Opposed P	hasing:	0			Opposed I	Phasing:		Gen 2	PM	0	0	0		Opposed F	hasing: (C
PM Peak:	5:00 PM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	Total		Lane	Adjusted	Total		Lane
5 Loft		Volume	Lanes	Volume 103	Growth	Projects	Volume	Lanes	Volume 132	5%	/olume	Volume	Lanes 2	Volume	Volume	Volume	Lanes 2	Volume 136
<u> </u>		187	2	0	10	44	241	L	132	0%	6	247	2 0	136	0	247	0	130
S f Lt-Th	<u>N/B RTOR:</u>		1	409				0	•	5%				409			Ŭ c	409
	Existing: 50%	684			35	92	811	2	405	5% 0%	7	818	2		0	818	2	409
£ 1≁Th-Rt	Projected: 50%		1	409				0	0				0	0			0	0
_ · · · · · · ·	Mitigated: 50%	134	0	0	7	2	143	1	82	0%	0	143	1	82	0	143	1	82
[∠] ↔ Shared			0	0				0	0	0%	_		0	0			0	0
		182	2	100	9	85	276	2	152	(15%)	26	302	2	166	0	302	2	166
Lt-Th	<u>S/B RTOR:</u>		0	0	_			0	0	0%			0	0			0	0
Pun of Lt-Th oquino ↓ Thru ↓ Th-Rt ↓ Right	Existing: 50%	738	1	411	38	43	819	1	460	(10%)	18	837	1	472	0	837	2	418
िस् ्र Th-Rt	Projected: 50%		1	411				1	460	0%			1	472			0	0
(n)	Mitigated: 50%	83	0	0	4	15	102	0	0	5%	6	108	0	0	0	108	1	48
Shared			0	0		10	102	0	0	0%	Ŭ	100	0	0	•	100	0	0
Left		82	1	82	4	28	114	1	114	5%	6	120	1	120	0	120	1	120
$\begin{array}{c} \begin{array}{c} \downarrow \downarrow \downarrow Lt-Th \\ \neg \downarrow Thru \\ \downarrow \downarrow \downarrow \downarrow \downarrow \uparrow Th-Rt \end{array}$	E/B RTOR:	02	0_	0		20		0_	0	0%	0	120	0_	0	•	120	0_	0
ರ್ಷ → Thru	Existing: 50%	1106	2	553	56	55	1217	2	609	0%	0	1217	2	609	0	1217	2	609
ਜੋਂ → Th-Rt	Projected: 50%	1100	0	0	50	55	1211	0	0	0%	U	1217	0	0	U	1211	0	0
ё́ 🦳 Right	Mitigated: 50%	198	1	104	10	61	269	1	149	0%	0	269	1	146	0	269	1	146
→ Shared		190	0	0	10	01	209	0	0	0%	U	209	0	0	U	209	0	0
← Left		114	1	114	6	3	123	1	123	0%	0	123	1	123	0	123	1	123
un trutterr	W/B RTOR:	114	0	0	0	3	125	0	0	0%	U	125	0	0	U	123	0	0
g ← Thru	Existing: 0%	716	2	282	37	55	808	2	346	15%	19	827	2	352	0	827	2	352
$ \begin{array}{c} ^{\text{OQ}} \leftarrow \text{Thru} \\ ^{\text{Thru}} \leftarrow \text{Th-Rt} \end{array} $	Projected: 0%	710	1	282	37	55	000	1	346	0%	19	021	1	352	U	021	1	352
$\stackrel{0}{>} \stackrel{1}{\sim} Right$	Mitigated: 0%	400	0	0	7	05	004	0	0	0%	0	004	0	0	0	004	0	0
> → Shared		129	0	0	1	95	231	0	0	0%	U	231	0	0	0	231	0	0
	ritical Volumes:	North-	South:	513			North-	South:	593			North-	South:	608		North-	South:	575
	nitoar volumes.		-West:	667				-West:	732				-West:	732			-West:	732
			Total:	1180			Lasi	Total:	1324				Total:	1340			Total:	1307
			i Utal.					i Utal.					i Ulai.				i otal.	
	apacity (<i>v/c</i>) ratio:			0.858					0.963					0.974				0.950
v/c less AT	SAC adjustment:			0.788					0.893					0.904				0.880
Level	of Service (LOS):			С					D					E				D
												<u>P R</u>	OJE	ЕСТ	IMPA	<u> </u>		
Filename:	K:\LDT_LDEV\99038001 Washi	ington & National Low	e\Documents\Tr	affic\Analysis\CMA	Calc Forms\CMAC	alc_Final_2019.xl:			С	hange in	v/c due	to project:		0.011	$\Delta v/c$ after	mitigation:	-(0.013
Developed 200	5-2007 by Ken Aitchis	son								Sign	ificantly	impacted?		YES	Fully	mitigated?		YES
										5	,	•		-	,	5		-

					1													
Intersection No. 8		2014, EXISTING			2019, PROJECTED CUMULATIVE BASE				2019, WITH PROJECT					2019, WITH TRAFFIC MITIGATION				
North/South Str	Critical Phases: 2			Ambient Growth		Critical Phases: 2		2	Adjacent		<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	2	
Helms Avenue		Capacity: 1500		from:	2014	D14 Capacity: 15		1500	Trip AM		173	83	256			apacity:	1500	
East/West Street:		Signal System: 2		to:	2019	Signal System: 2		2	Gen 1	PM	127	174	301	🔲 Use Dist	21 Signal	System:	2	
Washington Boulevard		v/c reduction: 7%		at:	1.0%	v/c reduction: 7%		Trip	AM			0	v/c reduction: 7%			7%		
Analysis Date: 10/29/2015		Opposed Phasing: 0					Opposed Phasing: 0		Gen 2 PM 0 0		0			0				
AM Peak:	8:00 AM	Counts Volume	Lanes	Lane Volume	+ Amb. Growth	+ Area Projects	= Total Volume	Lanes	Lane Volume		Project Volume	= Total Volume	Lanes	Lane Volume	Adjusted Volume	Total Volume	Lanes	Lane Volume
ר 🕁 Left		91	0	0	5		96	0	0	0%	0	96	0	0	0	96	0	0
p 1 Left Lt-Th oq ↑ Thru thru thru c Right	N/B RTOR:	31	0	0	5		30	0	0	0%	U	30	0	0	U	30	0	0
↑ Thru	Existing: 0%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
Ţ ∱ Th-Rt	Projected: 0%	U	0	0	U		0	0	0	0%	U	0	0	0	U	0	0	0
o r Right	Mitigated: 0%	13	0	0	1		14	0	0	0%	0	14	0	0	0	14	0	0
∠ ↔ Shared		13	1	104	I		14	1	109	0%	U	14	1	109	U	14	1	109
Left		0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
Ğ , b≻Lt-Th	S/B RTOR:	U	0	0	U		0	0	0	0%	U	0	0	0	U	0	0	0
Pun og ↓ Thru	Existing: 0%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
⊊ ⊷ Th-Rt	Projected: 0%	U	0	0	U		0	0	0	0%	U	0	0	0	U	0	0	0
HTh-Rt Or → Right	Mitigated: 0%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
Shared		0	0	0	U		0	0	0	0%	U	0	0	0	0	0	0	0
J Left		0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
₽ → Lt-Th	E/B RTOR:	U	0	0	U		0	0	0	0%	U	0	0	0	U	0	0	0
$\begin{array}{c} \text{Lorr}\\ \text{Prime}\\ $	Existing: 0%	4004	1	509	51	00	4075	1	546	(15%)	13	4000	1	553	0	4000	1	553
⊖ t _i → Th-Rt	Projected: 0%	1001	1	509	51	23	1075	1	546	0%	13	1088	1	553	0	1088	1	553
Right	Mitigated: 0%	47	0	0			40	0	0	0%	0	40	0	0	0	40	0	0
\checkmark Shared		17	0	0	1		18	0	0	0%	0	18	0	0	0	18	0	0
_ C Left			1	11			40	1	12	0%	_	40	1	12	0	40	1	12
punoqt tt-Th oc Thru ts ← Th-Rt	W/B RTOR:	11	0	0	1		12	0	0	0%	0	12	0	0	0	12	0	0
g ← Thru	Existing: 0%	4007	2	654	07	0.4	4000	2	699	15%	200	4 4 0 4	2	712		4404	2	712
$\frac{O}{t_{S}} \stackrel{1}{\leftarrow} \text{Th-Rt}$	Projected: 0%	1307	0	0	67	24	1398	0	0	0%	26	1424	0	0	0	1424	0	0
$\stackrel{0}{>}$ $\stackrel{1}{\sim}$ Right	Mitigated: 0%	~	0	0			0	0	0	0%	0	0	0	0	0	~	0	0
> + Shared		0	0	0	0		0	0	0	0%	U	0	0	0	0	0	0	0
Critical Volumes:				104	North-South: 109					North-South: 109				109	North-South: 109			
				654			East-West:		699			East-West:		712		East-West:		712
		Total: 758		Total:		Fotal:	808	Tota		Total:	821			821				
Volume/capacity (v/c) ratio:		0.505					0.539	0.547				0.547						
v/c less ATSAC adjustment:		0.435		0.469			0.477					0.477						
Level of Service (LOS):								A										
				A					А			P R		A E C T				A
									~	hans 1								0 000
Filename:	K:\LDT_LDEV\99038001 Washi	-	e\Documents\Tr	raffic\Analysis\CMA	ACalc Forms\CMAC	alc_Final_2019.xl:			C	•		to project:		0.008		0		0.008
Developed 200	5-2007 by Ken Aitchis	ion								Sigr	nificantly i	impacted?		NO	Fully	mitigated?		N/A
r					-									-	1			
--	-------------------------------	------------------	---------------	--------------------	------------------	--------------------	-------------------	----------	----------------	----------	-------------------	-----------------	---------------	----------------	------------	-----------------	----------	----------------
	tion No. 8		EXISTI				TED CUMUI					, WITH PF	ROJECT		2019, WI	TH TRAFF		
North/South Str	eet:	Critical F	hases:	2	Ambient G	irowth	Critical I	Phases:	2	☐ Ad	jacent	<u>In</u>	<u>Out</u>	<u>Total</u>	-	Critical	Phases:	2
Helms Aver	nue	Ca	pacity:	1500	from:	2014	Ca	apacity:	1500	Trip	AM	173	83	256	100 C		apacity:	1500
East/West Stree	et:	Signal S	system:	2	to:	2019	Signal S	System:	2	Gen 1	PM	127	174	301	🗖 Use Dist	21 Signal	System:	2
Washingtor	n Boulevard	v/c red	uction:	7%	at:	1.0%	v/c red	luction:	7%	Trip	AM	0	0	0		v/c re	duction:	7%
Analysis Date:	10/29/2015	Opposed P	hasing:	0			Opposed P	hasing:	0	Gen 2	PM	0	0	0		Opposed F	hasing:	0
PM Peak:	5:00 PM	Counts Volume	Lanes	Lane Volume	+ Amb. Growth	+ Area Projects	= Total Volume	Lanes	Lane Volume		Project Volume	Total Volume	Lanes	Lane Volume	3	Total Volume	Lanes	Lane Volume
ר א Left		40	0	0	<u> </u>		40	0	0	0%	0	40	0	0	0	40	0	0
p f Left Lt-Th oq ↑ Thru thru thru c Right	N/B RTOR:	46	0	0	2		48	0	0	0%	0	48	0	0	0	48	0	0
Q ↑ Thru	Existing: 0%	~	0	0	0		0	0	0	0%	_	0	0	0	_	0	0	0
∰ hr-Rt	Projected: 0%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
C Right	Mitigated: 0%		0	0			10	0	0	0%		10	0	0	_	10	0	0
Z ↔ Shared		11	1	57	1		12	1	60	0%	0	12	1	60	0	12	1	60
U loft			0	0				0	0	0%	_		0	0			0	0
	S/B RTOR:	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
S ↓ Thru	Existing: 0%		Ő	0				Ő	Ő	0%			0	0			Ő	0
⊈ ⊷ Th-Rt	Projected: 0%	0	Ő	Ő	0		0	Ő	Ő	0%	0	0	Ő	0	0	0	Ő	0
Right	Mitigated: 0%		0	0				0	0	0%			0	0			Ő	0
Shared	initigated ove	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	Ő	0
→ Left			0	0				0	0	0%			0	0			0	0
	E/B RTOR:	1	Ő	0	0		1	0	0	0%	0	1	0	0	0	1	0	0
$\begin{array}{c} \text{Lorr}\\ \text{Dup} \rightarrow \text{Lt-Th}\\ \text{Opt} \rightarrow \text{Thru}\\ \text{Th-Rt}\\ \text{ST} \rightarrow \text{Th-Rt}\\ T$	Existing: 0%		1	731	-			1	787	(15%)			1	800			1	800
tind tig → Th-Rt	-	1382	1	731	70	38	1490	1	787	(13%)	26	1516	1	800	0	1516	1	800
SC Dialet	Projected: 0%		0		-					0%			0				0	000
Right	Mitigated: 0%	80		0	4		84	0	0		0	84		0	0	84		0
→ Shared			0	0				0	0	0%			<u>0</u> 1	0			0	0
ס ⊂ Left		21	• [21	1		22	1	22 0	0%	0	22		22	0	22	1	22
un the second s	W/B RTOR:		0	0				0		0%			0	0			0	0
$\overline{O} \leftarrow Thru$ $G \leftarrow Th-Rt$	Existing: 0%	885	2	443	45	38	968	2	484	15%	19	987	2	494	0	987	2	494
$\frac{1}{5}$ $\stackrel{\text{ch}}{\leftarrow}$ Th-Rt	Projected: 0%		0	0				0	0	0%			0	0			0	0
	Mitigated: 0%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
> → Shared			0	0				0	0	0%			0	0			0	0
Cr	itical Volumes:	North-S		57			North-S		60			North-		60		North-		60
		East-	West:	752			East-	West:	809			East	-West:	822		East	-West:	822
		-	Total:	809			-	Total:	869				Total:	882			Total:	882
Volume/ca	apacity (<i>v/c</i>) ratio:			0.539					0.580					0.588				0.588
v∕c less AT	SAC adjustment:			0.469					0.510					0.518				0.518
	of Service (LOS):			A					A					A				A
Leven	0.001100 (200).			А	1				А			חח		E C T	IMPA	νст		А
									0	hanga in	u/a dua			- • ·				
Filename:	K:\LDT_LDEV\99038001 Washi	-	\Documents\Tr	affic\Analysis\CMA	ACalc Forms\CMAC	alc_Final_2019.xl:			C	•		to project:		0.008		0		0.008
Developed 200	5-2007 by Ken Aitchis	son								Sigi	nificantly	mpacted?		NO	Fully	mitigated?		N/A

		0014	EVICE		0010	000150		A T 1 1 / F	D 4 0 5		0010				0010 14/			
	tion No. 9		, EXIST				TED CUMUL			🛛 Adj		, WITH PF		T		TH TRAFF		
North/South Str			Phases:		Ambient G		Critical P					<u>In</u>	<u>Out</u>	<u>Total</u>			Phases:	
Robertson I			apacity:		from:	2014		pacity:		Trip	AM	173	83	256			apacity:	
East/West Stree		-	System:		to:	2019	Signal S			Gen 1	PM	127	174		Use Dist	0	System:	
National Bo			duction:		at:	1.0%	v/c redu			Trip	AM	0	0	0			duction:	
Analysis Date:	10/29/2015	Opposed P	hasing:				Opposed Ph	nasing:		Gen 2	PM	0	0	0		Opposed I	hasing:	
AM Peak:	8:00 AM	Counts Volume	Lanes	Lane Volume	+ Amb. Growth	+ Area Projects	= Total Volume	Lanes	Lane Volume		Project /olume	= Total Volume	Lanes	Lane Volume	Adjusted Volume	Total Volume	Lanes	Lane Volume
Left آ ج			1	45				1	49	0%			1	49			1	49
und Lt-Th	N/B RTOR:	45	0	0	2	2	49	0	0	0%	0	49	0	0	0	49	0	0
	Existing: 50%		1	353				1	374	0%			1	378			1	378
G → Th-Rt	Projected: 50%	634	1	353	32		666	1	374	0%	0	666	1	378	0	666	1	378
P C Left Lt-Th O ↑ Thru Lt-Th C ↑ Th-Rt	Mitigated: 50%		0	000		_		0	014	5%			0	0.0			0	0.0
Z ↔ Shared		72	Ő	0	4	5	81	Ő	0	0%	8	89	Ő	0	0	89	Ő	0
L. Loft			2	256				2	307	10%			2	317			2	317
pun ↓Lt-Th oqu ↓ Thru un ↓ Th-Rt o ↓ Right	S/B RTOR:	465	0	0	24	70	559	0	0	0%	18	577	0	0	0	577		0
O ↓ Thru	Existing: 0%		1	516				1	575	0%			1	575			1	575
G ↓ Thru L ← Th-Rt	Projected: 0%	911	1	516	46	64	1021	1	575	0%	0	1021	1	575	0	1021	1	575
Right	Mitigated: 0%			510				0	0	0%			0	0/5			0	0
Shared	Mitigateu. 078	120	0	0	6	3	129	0	0	0%	0	129	0	0	0	129	0	0
→ Left			1	235				1	249	0%			1	249			2	137
	E/B RTOR:	235	0	235	12	2	249	0 0	249	0%	0	249	0	<u></u> 0	0	249	0	137
			1	455				1	491	10%			1	500			0	500
$\overrightarrow{O} \rightarrow \text{Thru}$	Existing: 0%	665	1	455	34	24	723	1	491	0%	18	741	1	500		741	1	500
	Projected: 0%		1										1				''	500
ш <u>кig</u> it	Mitigated: 0%	245	0	0	12	2	259	0	0	0%	0	259	0	0	0	259	0	0
			0	0				0	0	0%			0 1	0			0	0
		132	1	132	7	0	139		139	(5%)	4	143	-	143		143	1	143
Lt-Th	W/B RTOR:		0	0				0	0	0%			0	0			0	0
tr-Rt	Existing: 75%	459	1	459	23	4	486	1	486	(15%)	13	499	1	499	0	499	1	499
$\frac{1}{10}$ $\frac{1}{10}$ Th-Rt	Projected: 75%		0	0				0	0	0%			0	0			0	0
	Mitigated: 75%	368	1	19	19	0	387	1	0	0%	0	387	1	0	0	387	1	0
Shared			0	0				0	0	0%			0	0			0	0
Cr	ritical Volumes:	North-		609			North-S		681				South:	695			South:	695
		East	-West:	694			East-		735				-West:	748		East	-West:	643
			Total:	1303			Т	Fotal:	1416				Total:	1443			Total:	1338
Volume/ca	apacity (<i>v/c</i>) ratio:			0.947					1.030					1.050				0.973
v∕c less AT	SAC adjustment:			0.847					0.930					0.950				0.873
	of Service (LOS):			D					E					E				D
									<u> </u>	I		DD		ECT		ТОГ		
Filosom		leader a blott - 11			0.1.5				C	hango in	v/c due	to project:		0.020				0.057
Filename:	K:\LDT_LDEV\99038001 Wash	-	e\Documents\Ti	ramcvanalysis\CMA	Calc Forms\CMAC	aic_Final_2019.xl:			C	•		impacted?		VES		0	-	YES
Developed 200	J-2007 By Ken AltChis									Sign	meanity	inipacieu?		IES	Fully	mitigated?		IES

	- <u> </u>														1			
	tion No. 9		, EXIST				TED CUMUL					, WITH PF				TH TRAFF		
North/South Str		Critical	Phases:	4	Ambient (Critical P	hases:	4		jacent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	4
Robertson I	Boulevard	C	apacity:	1375	from:	2014	Са	pacity:	1375	Trip	AM	173	83	256	~	С	apacity:	1375
East/West Stree	et:	Signal S	System:	3	to:	2019	Signal S	ystem:	3	Gen 1	PM	127	174	301	🗖 Use Dist	21 Signal	System:	3
National Bo	oulevard	v/c red	duction:	10%	at:	1.0%	v/c red	uction:	10%	Trip	AM	0	0	0		v/c re	duction:	10%
Analysis Date:	10/29/2015	Opposed P	hasing:	0			Opposed Ph	hasing:	0	Gen 2	PM	0	0	0		Opposed I	Phasing:	0
PM Peak:	5:00 PM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	Total		Lane	5	Total		Lane
	0.0011	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes			Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
Left آ ج		41	1	41	2	2	45	1	45	0%	0	45	1	45	0	45	1	45
P Left Lt-Th oq ↑ Th-Rt O ↑ Right	<u>N/B RTOR:</u>		0	0				0	0	0%			0	0	-	-	0	0
<u> </u>	Existing: 50%	389	1	269	20		409	1	294	0%	0	409	1	297	0	409-	1	297
ਦੂੰ ∱ Th-Rt	Projected: 50%		1	269				1	294	0%			1	297			1	297
	Mitigated: 50%	149	0	0	8	22	179	0	0	5%	6	185	0	0	0	185	0	0
[∠] ↔ Shared		140	0	0	•	22		0	0	0%	<u> </u>	100	0	0	•	100	0	0
- → Left		488	2	268	25	74	587	2	323	10%	13	600	2	330	0	600	2	330
Š ,≻Lt-Th	S/B RTOR:	400	0	0	25	/4	507	0	0	0%	13	000	0	0	U	000	0	0
S ↓ Thru	Existing: 0%	740	1	437	37	27	792	1	480	0%	0	792	1	480	0	792	1	480
∰ d Th-Rt	Projected: 0%	718	1	437	37	37	792	1	480	0%	0	792	1	480	0	792	1	480
pun ↓Lt-Th oquit Th-Rt o↓ Right	Mitigated: 0%	450	0	0			400	0	0	0%	_	400	0	0	•	400	0	0
[™] ↔ Shared		156	0	0	8	4	168	0	0	0%	0	168	0	0	0	168	0	0
لور Left			1	197		_		1	209	0%	_		1	209			2	115
	E/B RTOR:	197	0	0	10	2	209	0	200	0%	0	209	0	200		209	0	0
$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} $	Existing: 0%		1	509				1	540				1	546			1	546
tind tind tind tind Th-Rt	Projected: 0%	919	1	509	47	8	974	1	540		13	987	1	546	0	987	1	546
	ļ		0	<u> </u>				ן י ס		0%			ין 0	<u> </u>			0	0
	Mitigated: 0%	99	0	0	5	2	106	0	0		0	106			0	106		0
→ Shared			0	<u> </u>				0	<u> </u>	0%			0	0			0	
₽ C Left		126	1	126	6	0	132	1	132	(5%)	9	141	1	141	0	141	1	141
ס גר בייך Lt-Th	W/B RTOR:		0	0				0	0	0.0			0	0			0	0
$ \begin{array}{c} 10 \leftarrow \text{Thru} \\ \text{qts} \leftarrow \text{Th-Rt} \\ \end{array} $	Existing: 75%	311	1	311	16	21	348	1	348		26	374	1	374	0	374	1	374
$\frac{1}{100}$ $\frac{1}{100}$ Th-Rt	Projected: 75%		0	0				0	0				0	0			0	0
	Mitigated: 75%	283	1	0	14	0	297	1	0	0%	0	297	1	0	0	297	1	0
Shared		200	0	0	14	<u> </u>	201	0	0	0%		201	0	0	•	201	0	0
Cr	ritical Volumes:	North-	South:	537			North-S	South:	617			North-	South:	627		North	South:	627
	-		-West:	635			East-	West:	672				-West:	688			-West:	688
			Total:	1172				Total:	1289				Total:	1315			Total:	1315
Volume/co	apacity (<i>v/c</i>) ratio:			0.853				. otan	0.937					0.956				0.956
	SAC adjustment:			0.753					0.837					0.856				0.856
Level	of Service (LOS):			С					D					D				D
												<u>P R</u>		ЕСТ	IMPA	<u> </u>		
Filename:	K:\LDT_LDEV\99038001 Washi	ington & National Low	e\Documents\Ti	raffic\Analysis\CMA	ACalc Forms\CMAC	Calc_Final_2019.xl:			С	hange in	<i>v∕c</i> due	to project:		0.019	$\Delta v/c$ after	mitigation:		0.019
Developed 200	5-2007 by Ken Aitchis	son								Sigr	nificantly	impacted?		NO	Fully	mitigated?		N/A
										5	,	•			,	-		

					1										1			
	<u>ion No. 10</u>		, EXIST				TED CUMU					, WITH PF			2019, WI	TH TRAFF		
North/South Stre			Phases:		Ambient C			Phases:		🛛 Adj		<u>In</u>	<u>Out</u>	<u>Total</u>			Phases:	-
National Bo			apacity:		from:			apacity:		Trip	AM	173	83	256			apacity:	
East/West Stree	-	-	System:		to:	2019	0	System:		Gen 1	PM	127	174		Use Dist	-	System:	
I-10 EB Rar	mp	v/c red	duction:	10%	at:	1.0%	v/c re	duction:	10%	Trip	AM	0	0	0			duction:	
Analysis Date:	10/29/2015	Opposed P	hasing:				Opposed I	Phasing:		Gen 2	PM	0	0	0		Opposed I	Phasing:	
AM Peak:	8:00 AM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	= Total		Lane	,	Total		Lane
5 1 0		Volume	Lanes	Volume 32	Growth	Projects	Volume	Lanes	Volume 173	(5%)	olume	Volume	Lanes	Volume 177	Volume	Volume	Lanes	Volume 177
		32	<u>'</u> [<u> </u>	2	139	173		0	(5 %)	4	177	0	0	0	177	· · ·	
	<u>N/B RTOR:</u>		0	•				0	· · · ·					434			0	0 434
O ↑ Thru	Existing: 50%	807	2	404	41	3	851	2	426	(20%)	17	868	2		0	868	2	434
£ Prh-Rt	Projected: 50%		0	0				0	0	0%			· · ·	0			0	0
	Mitigated: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
**Shared			0	0				0	0	0%			0	0			0	0
⊇ ^{Left}		0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
⊑ ⊳Lt-Th	<u>S/B RTOR:</u>	Ŭ	0	0	Ŭ		Ŭ	0	0	0%		Ŭ	0	0		Ŭ	0_	0
Pun ↓Lt-Th oquit Thru thru thru V Right	Existing: 50%	822	2	411	42	77	941	2	470	25%	44	985	2	492	0	985	2	492
ਦੂ ⊷ Th-Rt	Projected: 50%	022	0	0	-12	• •	041	0	0	0%		000	0	0	•	000	0	0
Right لم ق	Mitigated: 50%	423	1	423	22	2	447	1	447	0%	0	447	1	447	0	447	1	447
∽ ↔Shared		423	0	0	22	2	447	0	0	0%	U	447	0	0	U	447	0	0
✓ Left		0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
tr-Lt-Lt trod t	E/B RTOR:	U	0	0	0		0	0	0	0%	U	0	0	0	U	U	0	0
$\stackrel{\neg}{O} \rightarrow \text{Thru}$	Existing: 50%	0	0	0	0		0	0	0	0%		0	0	0	0	0	0	0
⊕ → Th-Rt	Projected: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
	Mitigated: 50%		0	0				0	0	0%			0	0	_		0	0
Generation → Shared	0	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
C Left			0	0				0	0	0%	_		0	0			0	0
$\begin{array}{c} \downarrow \\ \downarrow $	W/B RTOR:	0	Ō	Ő	0		0	Ő	0 0	0%	0	0	Ō	Ő		0	ō	0
o ← Thru	Existing: 50%		Ő	0				Ő	Ő	0%			Ő	0 0			Ő	Õ
ts ← Th-Rt	Projected: 50%	0	Ő	0 0	0		0	ŏ	ŏ	0%	0	0	ŏ	ŏ	0	0	Ő	Ő
	Mitigated: 50%		Ő	ŏ				ŏ	Ő	0%			Ő	Ő			Ő	0
Shared	Willigated. 0070	0	0	0	0		0	Ő	Ő	0%	0	0	Ő	Ő	0	0	ŏ	0
			•					· ·	v	070							•	0
Cr	itical Volumes:	North-		455				South:	643			North-		669			South:	669
			-West:	0				-West:	0				-West:	0			-West:	0
			Total:	455				Total:	643				Total:	669			Total:	669
Volume/ca	apacity (<i>v/c</i>) ratio:			0.319					0.451					0.470				0.470
v∕c less AT	SAC adjustment:			0.219					0.351					0.370				0.370
	of Service (LOS):			А					А					А				А
<u> </u>				/ \	1				/ \	1		PR		ECT	IMPA	АСТ		/ \
Filonomo		landar O Mallanati	10		10-1- E10****				C	hange in	v/c duo	to project:		0.019				0.019
	K:\LDT_LDEV\99038001 Washi 5-2007 by Ken Aitchis	-	evpocuments/1	ranicvanalysis\CMA	Calc Forms/CMAC	aic_Final_2019.xl			C	•		impacted?		NO		0		N/A
Developed 200	5-2007 by Ken Altons	5011								Sign	meanity	impacted?		NO	Fully	mitigated?		IN/A

					-									-	1			
Intersection N	<u>No. 10</u>	2014,	EXISTI	NG	2019	PROJEC	TED CUMU	ILATI VE	BASE			, WITH PF	ROJECT		2019, WI	TH TRAFF	IC MITI	GATION
North/South Street:		Critical F	Phases:	3	Ambient C	<u>Growth</u>	Critical	Phases:	3		acent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	3
National Boulev	vard	Ca	apacity:	1425	from:	2014	C	apacity:	1425	Trip	AM	173	83	256	-		apacity:	1425
East/West Street:		Signal S	System:	3	to:	2019	Signal	System:	3	Gen 1	PM	127	174	301	🗖 Use Dist	2' Signal	System:	3
I-10 EB Ramp		v/c red	luction:	10%	at:	1.0%	v/c re	duction:	10%	Trip	AM	0	0	0		v/c re	duction:	10%
Analysis Date: 10)/29/2015	Opposed P	hasing:	0			Opposed I	Phasing:	0	Gen 2	PM	0	0	0		Opposed I	Phasing:	0
PM Peak: 5:	:00 PM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	Total		Lane	Adjusted	Total		Lane
5 1 00		Volume	Lanes	Volume 87	Growth	Projects	Volume	Lanes	Volume 327	(5%)	/olume	Volume	Lanes	Volume 336	Volume	Volume	Lanes	Volume 336
· · · · · · · · · · · · · · · · · · ·	RTOR:	87	0	0	4	236	327	0	<u> </u>	(3%)	9	336	0	<u> </u>	0	336	0	330
			2	357					385	(20%)			2	402			-	402
C ↑ Thru Existi	ing: 50%	714	2	357 0	36	19	769	2	305 0	(20%)	35	804	2	402	0	804	2	402
Image: Proje Image: Proje	ected: 50%		•						0					0			0	0
	ated: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
∠ ↔ Shared			0	0				0	0	0%			0	0			0	0
	DTOD	0			0		0		0	0% 0%	0	0	0		0	0	0	0
	RTOR:		0	0				0	0					0				
C J Thru Existi	ing: 50%	962	2	481	49	68	1079	2	540	25%	32	1111	2	556	0	1111	2	556
	ected: 50%		0	0				0	500	0%			· · ·	500			0	500
	ated: 50%	558	1	558	28	2	588	1	588	0%	0	588	1	588	0	588	1	588
Shared ✓ Left			0	0				0	0	0%			0	0			0	0
	DTOD	0		0	0		0	0	0	0%	0	0	0	0	0	0	0	0
	RTOR:		0	0				0	0	0%			0	0			0	0
$O \rightarrow Ihru$ Existi	ing: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
Th-Rt Proje	ected: 50%		0	0				0	0				0	0			0	0
	ated: 50%	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
ס < Left		0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
$\subseteq \checkmark Lt-Th$ <u>W/B</u>	RTOR:		0	0				0	0				0	0			0	0
	ing: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
$\frac{1}{10}$ $\stackrel{\text{C}}{\leftarrow}$ Th-Rt Proje	ected: 50%		0	0				0	0	0%			0	0			0	0
	ated: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
> → Shared			0	0				0	0	0%			0	0			0	0
Critical	I Volumes:	North-S	South:	645			North-	South:	916			North-	South:	925		North	South:	925
		East-	West:	0			East	-West:	0			East	-West:	0		East	-West:	0
		-	Total:	645				Total:	916				Total:	925			Total:	925
Volume/capacity	ty (<i>v/c</i>) ratio:			0.453					0.643					0.649				0.649
v/c less ATSAC	adjustment:			0.353					0.543					0.549				0.549
	ervice (LOS):			A					A					Δ				A
				А					А	1		P R		E C T		ΛСТ		А
									0	hango in	w/a dua	to project:		0.006				0.006
	LDEV\99038001 Washir	-	\Documents\Tr	attic\Analysis\CMA	ACalc Forms\CMAC	alc_Final_2019.xl:			C	•						0		
Developed 2005-2007	or by Ken Altchis	ULI								Sign	incantiy	impacted?		NO	Fully	mitigated?		N/A

										r					1			
Intersection	<u>on No. 11</u>	2014,	EXISTI	NG	2019	PROJEC	TED CUMU	LATIVE	BASE			, WITH PF	ROJECT		2019, WI	TH TRAFF	CMITI	GATION
North/South Stre	eet:	Critical F	Phases:	2	Ambient G	irowth	Critical	Phases:	2	Ad Ad	jacent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	2
Wesley Stre	et	Ca	apacity:	1500	from:	2014	C	apacity:	1500	Trip	AM	173	83	256		C	apacity:	1500
East/West Street	t:	Signal S	System:	2	to:	2019	Signal S	System:	2	Gen 1	PM	127	174	301	Use Dist	21 Signal S	System:	2
National Bo	ulevard	v/c red	luction:	7%	at:	1.0%	v/c red	duction:	7%	Trip	AM	0	0	0		v/c red	duction:	7%
Analysis Date:	10/29/2015	Opposed P	hasing:	1			Opposed F	hasing:	1	Gen 2	PM	0	0	0		Opposed F	hasing:	1
AM Peak:	8.00 AM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	= Total		Lane	2	Total		Lane
	0.00 AW	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume		Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
Left رَح		123	0	0	6		129	0	0	0%	0	129	0	0	0	129	0	0
ן <u>ק</u> ל Lt-Th	<u>N/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
<u> </u>	Existing: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
France F	Projected: 50%	Ŭ	0	0	•		Ŭ	0	0	0%		Ŭ	0	0	- V	Ŭ	0	0
	Mitigated: 50%	76	0	0	4		80	0	0	0%	0	80	0	0	0	80	0	0
Z ↔ Shared		10	1	199			00	1	209	0%	U	00	1	209	U	00	1	209
-o └→Left		0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
Ē ,⊳Lt-Th	<u>S/B RTOR:</u>	U	0	0	U		U	0	0	0%	U	0	0	0	U	U	0	0
pun bLt-Th Qui thru un vi thru thru vi th-Rt no vi Right	Existing: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
⊊ -↓ Th-Rt	Projected: 50%	U	0	0	U		0	0	0	0%	U	0	0	0	U	U	0	0
Right ↓	Mitigated: 50%	~	0	0	0		•	0	0	0%	_	•	0	0	~	~	0	0
[™] ↔ Shared		0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
ノ Left			0	0				0	0	0%	_		0	0	_		0	0
$\begin{array}{c} \text{pund} \downarrow \text{Lt-Th} \\ \text{nod} \downarrow \text{Th-Rt} \\ \hline \\ \text{ts} \downarrow \text{Th-Rt} \end{array}$	E/B RTOR:	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
$D \rightarrow Thru$	Existing: 50%		2	367				2	440				2	444			2	444
tin Th-Rt	Projected: 50%	733	0	0	37	109	879	0	0	0%	9	888	ō	0	0	888	ō	0
Right	Mitigated: 50%		1	143				1	150	0%			1	150			1	150
Shared	mitigatea. 5070	205	0	0	10		215	0	0	0%	0	215	0	0	0	215	0	0
			1	40				1	42	0%			1	42			1	42
	W/B RTOR:	40	0	40	2		42	0	42	0%	0	42	0	42	0	42	0	42
			2	421	-			2	507	10%				515			2	515
0	Existing: 50%	841	2[43	130	1014	L. L. L.		0%	17	1031	2[0		0	1031	L	515
	Projected: 50%		0	0				0	0				•	0			0	0
	Mitigated: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	U	0
> → Shared			0	0				0	0	0%			0	0			0	0
Cri	itical Volumes:	North-S		199			North-		209			North-		209		North-		209
		East-	West:	421			East	-West:	507			East	-West:	515		East	-West:	515
		-	Total:	620				Total:	716				Total:	725			Total:	725
Volume/car	pacity (<i>v/c</i>) ratio:			0.413					0.477					0.483				0.483
	SAC adjustment:			0.343					0.407					0.413				0.413
	of Service (LOS):																	_
Leveld	DI GEIVICE (LUG):			A					A					A E C T	IMPA	ОТ		A
									~		<i>(</i> ,)			- • ·				0.00/
	K:\LDT_LDEV\99038001 Washi	-	\Documents\Tr	affic\Analysis\CMA	ACalc Forms\CMAC	alc_Final_2019.xl:			C	•		to project:		0.006		0		0.006
Developed 2005	5-2007 by Ken Aitchis	son								Sigr	nificantly	mpacted?		NO	Fully	mitigated?		N/A

															1			1
Intersect	ion No. 11	2014,	EXIST	ING	2019,	PROJEC	TED CUMU	LATIVE	BASE	_		, WITH PF	ROJECT		2019, WI	TH TRAFF		GATION
North/South St		Critical F	Phases:	2	Ambient G	rowth	Critical	Phases:	2	☐ Ad	jacent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	2
Wesley Str	eet	Ca	apacity:	1500	from:	2014	Ca	apacity:	1500	Trip	AM	173	83	256	_	С	apacity:	1500
East/West Stree	et:	Signal S	System:	2	to:	2019	Signal S	System:	2	Gen 1	PM	127	174	301	🗖 Use Dist	21 Signal	System:	2
National Bo	oulevard	v/c red	luction:	7%	at:	1.0%	v/c red	duction:	7%	Trip	AM	0	0	0		v/c ree	duction:	7%
Analysis Date	: 10/29/2015	Opposed P	hasing:	1			Opposed P	hasing:	1	Gen 2	PM	0	0	0		Opposed F	hasing:	1
PM Peak:	5:30 PM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	Total		Lane	3	Total		Lane
	0.001 10	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume		Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
Left		75	0	0	4		79	0	0	0%	0	79	0	0	0	79	0	0
p 1 Left un ↑ Lt-Th oq ↑ Thru un ↑ Th-Rt o ← Right	<u>N/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
Î Thru	Existing: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
ך וֹי Th-Rt	Projected: 50%	Ŭ	0	0	Ŭ		Ŭ	0	0	0%		Ŭ	0	0	· · ·	Ŭ	0	0
	Mitigated: 50%	15	0	0	1		16	0	0	0%	0	16	0	0	0	16	0	0
Z -∱ Shared		15	1	90	•		10	1	<mark>95</mark>	0%	U	10	1	95	U	10	1	95
Left		0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
Ğ , b→Lt-Th	S/B RTOR:	U	0	0	U		0	0	0	0%	U	0	0	0	U	0	0	0
Q ↓ Thru	Existing: 50%	~	0	0	0		0	0	0	0%	_	•	0	0	•	~	0	0
∰ +↓ Th-Rt	Projected: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
pun → Lt-Th oq ↓ Thru ut → Th-Rt	Mitigated: 50%		0	0				0	0	0%			0	0			0	0
^𝒞 ↔Shared	5	0	Ő	0	0		0	0	0	0%	0	0	0	0	0	0	Ő	0
ノ Left			0	0				0	0	0%			0	0			0	0
マムutath	E/B RTOR:	0	0	0 0	0		0	0	0	0%	0	0	0	Ő	0	0	Ő	0
$\begin{array}{c} \text{Durber } Lt - Th \\ \text{Durber } Thru \\ \text{Th-Rt} \\ \text{Th-Rt} \end{array}$	Existing: 50%		2	482				2	586	(10%)			2	595			2	595
	-	963	2 <u>0</u>	402	49	159	1171	2 0	<u> </u>	(10%)	18	1189	2 [0	<u> </u>	0	1189	2 [0	<u> </u>
Th-Rt	Projected: 50%		0	-				0	· · · · · ·				0				0	~
Right	Mitigated: 50%	78	1	40	4		82	1	43	0%	0	82	1	43	0	82	1	43
→ Shared			0	0				0	0	0%			0	0			0	0
ວ ← Left		9	1	9	0		9	1	9	0%	0	9	1	9		9	1	9
⊑ 🛠 Lt-Th	<u>W/B RTOR:</u>	-	0	0	_		-	0	0	0%		-	0	0		-	0	0
õ ← Thru	Existing: 50%	932	2	466	48	128	1108	2	554	10%	13	1121	2	560	0	1121	2	560
$\frac{1}{5}$ $\frac{1}{5}$ Th-Rt	Projected: 50%	002	0	0	-10	120	1100	0	0	0%	10	1121	0	0	U U	1121	0	0
$\stackrel{0}{\geq} \stackrel{\leftarrow}{t} \stackrel{\text{Right}}{}$	Mitigated: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
> → Shared		U	0	0	•		0	0	0	0%	U	0	0	0	U	0	0	0
	ritical Volumes:	North-	South:	90			North-	South:	95			North-	South:	95		North-	South:	95
0			West:	491				-West:	595				-West:	604			-West:	604
			Total:	581				Total:	690				Total:	699			Total:	699
Value - /-			i otai.					i otai.					i otal.				i otai.	
	apacity (<i>v/c</i>) ratio:			0.387					0.460					0.466				0.466
	TSAC adjustment:			0.317					0.390					0.396				0.396
Level	of Service (LOS):			Α					Α					Α				Α
												PR	OJE	ЕСТ	IMPA	A C T		
Filename:	K:\LDT_LDEV\99038001 Washi	ington & National Lowe	Nocuments\Ti	raffic\Analysis\CM/	ACalc Forms\CMAC	alc_Final_2019.xl:			С	hange ir	n v∕c due	to project:		0.006	$\Delta v/c$ after	mitigation:		0.006
	05-2007 by Ken Aitchis	-				-				•		mpacted?		NO		mitigated?		N/A
-	-									- 9	· · · · · · · · · · · · · · · · · · ·	1.1.1.1.1.1.1.1			,,	5		

Intersection No. 12 2014, EXISTING 2019, PROJECTED CLIMILATIVE BASE 2019, WTH TRAFFL ATTIC 2019, WTH TRAFFL ATTIC </th <th>· · · · · ·</th> <th> </th> <th></th>	· · · · · ·																		
Line Clemenga Boulevard StandWest Street: Cueasity: 1375 Wind StandWest Street: Tim:: 2014 Wind Street: Cueasity: 1375 Wind Street:																			
Eart/Mest Street. Signal System: 3 to: 2019 Signal System: 3 to: 2019 Signal System: 3 Signal System: 3 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>																			
Venice Boullevard vic reduction: 10% at: 1.0% vic reduction: 10% m M 0 0 vic reduction: 10% Analysis Date: 10/29/2015 Opposed Phasing: 0 analysis Date: 10/29/2015 Counts Lane Adjusted: 10/29/2015 Counts Lane Adjusted: 11/3 0 0 0 Opposed Phasing: 0 analysis Date: 10/29/2015 Volume Lane Adjusted: 11/3 0 0 0 0 11/3 0 0 0 11/3 0 0 0 11/3 0 0 0 11/3 0						from:													
Analysis Date: 10/29/2015 Opposed Phasing:		-	0	2		to:		0	2		Gen 1				301	Use Dist	0	,	
AM Peak 8:00 AM Courts Lane * Amb * Ame - Total Lane Volume Lane Lane Volume Lane Volume Lane Lane </td <td>Venice Boul</td> <td>levard</td> <td></td> <td></td> <td></td> <td>at:</td> <td>1.0%</td> <td></td> <td></td> <td></td> <td>Trip</td> <td></td> <td></td> <td></td> <td>0</td> <td></td> <td></td> <td></td> <td></td>	Venice Boul	levard				at:	1.0%				Trip				0				
NM Peak: St.O. UM Volume Lanes <	Analysis Date:	10/29/2015		hasing:	0				Phasing:					0	-			hasing: (C
Dot Unit Data Data <thd< td=""><td>AM Peak:</td><td>8:00 AM</td><td></td><td>1.000.00</td><td></td><td>-</td><td></td><td></td><td>1.0000</td><td></td><td></td><td>-</td><td></td><td>Lamaa</td><td></td><td>3</td><td></td><td>Lamaa</td><td></td></thd<>	AM Peak:	8:00 AM		1.000.00		-			1.0000			-		Lamaa		3		Lamaa	
0 + LLTh NERTOR: 165 0 0 8 17/3 0 0 17/3 0 0 17/3 0 0 17/3 0 0 17/3 0 0 17/3 0 0 17/3 0 0 17/3 0 0 17/3 0 0 17/3 0 0 17/3 0 0 0 17/3 0 0 0 17/3 0 0 0 17/3 0 0 0 1 1 1 0 0 0 0 1 <td< td=""><td>5 1-4</td><td></td><td></td><td>Lanes</td><td></td><td>Growin</td><td>Projects</td><td>volume</td><td>Lanes</td><td></td><td></td><td></td><td></td><td></td><td></td><td>volume</td><td>volume</td><td>Lanes</td><td></td></td<>	5 1-4			Lanes		Growin	Projects	volume	Lanes							volume	volume	Lanes	
2 +Shared 54 0 3 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 59 1 59 1 59 1 59 0 59 0 59 0 59 1 59 0 0 59 1 59 0 0 59 1 59 0 0 0 59 1 59 0 0 0 59 1 59 0 0 0 144 1 488 0 1145 2 488 0 1145 2 488 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			165			8		173				0	173	L	_	0	173		1/3
2 +Shared 54 0 3 57 0 08 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 59 1 59 1 59 1 59 0 59 0 0 59 1 59 0 0 0 59 1 59 0 0 0 1 145 2 488 0 1145 2 488 0 1145 2 488 0 <td< td=""><td></td><td></td><td></td><td></td><td>•</td><td></td><td></td><td></td><td>· · · ·</td><td>· ·</td><td></td><td></td><td></td><td></td><td>•</td><td></td><td></td><td>2</td><td>591</td></td<>					•				· · · ·	· ·					•			2	591
2 +Shared 54 0 3 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 59 1 59 1 59 1 59 0 59 0 59 0 59 1 59 0 0 59 1 59 0 0 59 1 59 0 0 0 59 1 59 0 0 0 59 1 59 0 0 0 144 1 488 0 1145 2 488 0 1145 2 488 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		•	1603	2		82		1685	1			0	1685	2		0	1685	1	
2 +Shared 54 0 3 57 0 08 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 57 0 0 59 1 59 1 59 1 59 0 59 0 0 59 1 59 0 0 0 59 1 59 0 0 0 1 145 2 488 0 1145 2 488 0 1145 2 488 0 <td< td=""><td>E C Dight</td><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>501</td><td></td><td></td><td></td><td>1</td><td>501</td><td></td><td></td><td></td><td>501</td></td<>	E C Dight	3								501				1	501				501
CLEft Size RTOR: Soft of the setting: 50% Soft of the setting: 50% <t< td=""><td></td><td>Milligated: 75%</td><td>54</td><td>0</td><td></td><td>3</td><td></td><td>57</td><td>· · ·</td><td>0</td><td></td><td>0</td><td>57</td><td>· · · · ·</td><td>0</td><td>0</td><td>57</td><td>0</td><td>0</td></t<>		Milligated: 75%	54	0		3		57	· · ·	0		0	57	· · · · ·	0	0	57	0	0
56 0 3 59 0 0 59 0 0 59 0 0 59 0 0 59 0 0 59 0 0 59 0 0 59 0 0 59 0 0 59 0 0 59 0 0 59 0 0 59 0 0 0 59 0 0 0 59 0 0 59 0 0 0 59 0				1	•				1	50					50			1	50
Shared 286 0 15 301 0 0 18 319 0 0 319 0 0 319 0 0 319 0 0 319 0 0 319 0 0 319 0 0 319 0 0 319 0 0 319 0 0 319 0 0 319 0 0 319 0 0 0 319 0 0 0 319 0 <th0< th=""> <th0< t<="" td=""><td></td><td></td><td>56</td><td></td><td></td><td>3</td><td></td><td>59</td><td>1</td><td>59</td><td></td><td>0</td><td>59</td><td></td><td>59</td><td>0</td><td>59</td><td>1</td><td>59</td></th0<></th0<>			56			3		59	1	59		0	59		59	0	59	1	59
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Shared 0	(A)	Mitigated: 50%	286		•	15		301		0		18	319		0	0	319		0
Q Lt.Th E/B RIOR: 312 0 16 328 0 08 9 337 0 0 337 0 0 Thru Existing: 50% 1129 3 376 58 8 1195 3 398 (5%) 4 1199 3 400 0 1199 3 400 0 1199 3 400 0 0 1199 3 400 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1199 3 400 0 1199 3 400 0 121 1 34 0 0 0 0 121 1 34 0 0 0 121 1 34 0 0 0 121 1 34 0 0 0 121 1 34 0 0 0 121 1 34 0 0 0 136 35 55 8 1367 3 456 0	Shared				0					0					0			· · · ·	0
G - Thru Existing: 50% 1129 3 376 58 8 1195 3 398 (5%) 4 1199 3 400 0 1199 3 400 0 1199 3 400 0	Lon		312	· · · · · · · · · · · · · · · · · · ·		16		328	L			9	337			0	337		
Right Mitigated: 50% 115 1 33 6 121 1 34 0% 0 121 1 34 0 121 1 34 0 0 121 1 34 0 0 121 1 34 0 0 121 1 34 0 0 121 1 34 0	ਪੁੱ - ∠ Lt-Th	<u>E/B RTOR:</u>	0.2					020		• •			001		-		001		· · · · ·
Right Mitigated: 50% 115 1 33 6 121 1 34 0% 0 121 1 34 0 0 121 1 34 0 0 121 1 34 0 <th0< th=""> 0 0</th0<>	$\vec{O} \rightarrow \text{Thru}$	Existing: 50%	1129			58	8	1195				4	1199			0	1199		
Shared 113 0 0 0 121 0 0 121 0 0 121 0 0 121 0 0 121 0 0 121 0 0 121 0 0 121 0 <th0< th=""> <th0< td="" th<=""><td>ਜੋਂ → Th-Rt</td><td>Projected: 50%</td><td>1120</td><td>0</td><td>-</td><td>00</td><td>Ŭ</td><td>1100</td><td>0</td><td>· · · · ·</td><td>0%</td><td>-</td><td>1100</td><td>0</td><td>•</td><td>, v</td><td>1100</td><td>0</td><td>•</td></th0<></th0<>	ਜੋਂ → Th-Rt	Projected: 50%	1120	0	-	00	Ŭ	1100	0	· · · · ·	0%	-	1100	0	•	, v	1100	0	•
Shared 0 <td>₽ → Right</td> <td>Mitigated: 50%</td> <td>115</td> <td>1</td> <td>33</td> <td>6</td> <td></td> <td>121</td> <td>1</td> <td>34</td> <td></td> <td>0</td> <td>121</td> <td></td> <td>34</td> <td>0</td> <td>121</td> <td>1</td> <td>34</td>	₽ → Right	Mitigated: 50%	115	1	33	6		121	1	34		0	121		34	0	121	1	34
T Lt-Th W/B RTOR: 182 0 0 191 0 0 191 0 0 191 0 0 191 0 0 191 0 0 191 0 0 191 0 0 191 0 0 191 0 0 191 0 0 191 0 0 191 0 0 191 0			110	0	-	0		121	0	· ·	0%		121			•	121		
\$\frac{1}{2}\$ \frac{1}{1}\$ hrule \$\frac{1}{2}\$ \frac{1}{3}\$ \frac{1}{425}\$ \frac{1}{0}\$ 0 \$\frac{1}{2}\$ \frac{1}{3}\$ \frac{1}{453}\$ \frac{5}{6}\$ \frac{1}{8}\$ 8 \$\frac{1}{3}\$ \frac{1}{453}\$ \frac{5}{6}\$ \frac{1}{8}\$ 8 \$\frac{1}{3}\$ \frac{1}{456}\$ \frac{1}{3}\$ \frac{1}{456}\$ 0 \$\frac{1}{3}\$ \frac{1}{3}\$ \frac{1}{456}\$ \frac{1}{0}\$ 0 \$\frac{1}{3}\$ \frac{1}{3}\$ \frac	👝 🧹 Left		182	1	182	Q		101	1	191	0%	0	101		191	0	101	1	191
Critical Volumes: North-South: 623 North-South: 653 19 1359 3 453 5% 8 1367 3 456 0 1367 3 456 0	⊆ 🛠 Lt-Th	W/B RTOR:	102	0_	-	9		191	0	_	0%	•	191	0	<u> </u>	U	191	0_	•
North-South: 623 North-South: 655 North-South: 661 North-South: 661 Critical Volumes: North-South: 623 North-South: 655 North-South: 661 East-West: 641 East-West: 597 Total: 1220 Total: 1288 Total: 1302 Total: 1302 Volume/capacity (v/c) ratio: 0.887 0.937 0.947 0.847 0.947 0.947 v/c less ATSAC adjustment: 0.787 0.787 0.837 0.837 0.847 0.847 Level of Service (LOS): C C C C D D D D Filename: KLDT_LDEV903000 Washington & National LowelDocuments/Traffic/Analysis/CAMCaler, Final_2019.xt Change in v/c due to project: 0.010 Av/c after miligation: 0.0100	od ← Thru	Existing: 50%	1275	3	425	65	10	1350	3	453	5%	Q	1367	3	456	0	1367	3	456
→ Shared ∩ 0	📆 🚣 Th-Rt	Projected: 50%	1215	0	0	05	19	1555	0	0	0%	0	1307	0	•	U	1307	0	0
→ Shared ∩ 0	Sector 2 ← Right	Mitigated: 50%	77	1	49	4		01	1	52	0%	0	01	1	52	0	01	1	52
Critical Volumes:North-South:623 East-West:North-South:661 South:North-South:661 East-West:East-West:661 East-West:East-West:661 East-West:East-West:661 East-West:East-West:661 East-West:East-West:661 East-West:East-West:661 East-West:East-West:661 East-West:East-West:661 East-West:East-West:661 East-West:East-West:661 East-West:East-West:661 East-West:East-West:661 East-West:East-West:661 East-West:East-West:661 East-West:East-West:6	✓ → Shared			0	0	4		01	0	0	0%	0	01	0	0	U	01	0	0
East-West:597East-West:633East-West:641East-West:641Total:1220Total:1288Total:1302Total:1302Volume/capacity (v/c) ratio:0.8870.9370.9370.9470.947v/c less ATSAC adjustment:0.7870.8370.8370.8470.847Level of Service (LOS):CDDDDDFilename:xLDT_LDEV99038001 Washington & National LowelDocuments/Tarfic/Analysis/CMACat_Final_2019.xtChange in v/c due to project:0.010Av/c after mitigation:0.0100		ritical Volumes	North-	South:	623			North-	South.	655			North-	South [.]	661		North-	South:	661
Total: 1220 Total: 1288 Total: 1302 Volume/capacity (v/c) ratio: 0.887 0.937 0.937 0.947 0.947 v/c less ATSAC adjustment: 0.787 0.837 0.837 0.847 0.847 Level of Service (LOS): C C D D D D																			
Volume/capacity (v/c) ratio: 0.887 0.937 0.947 0.947 v/c less ATSAC adjustment: 0.787 0.837 0.847 0.847 Level of Service (LOS): C D D D Filename: KLDT_LDEV99038001 Washington & National LowelDocuments/Traffic/Analysis/CMACale_Final_2019.xt; Change in v/c due to project: 0.010 Δv/c after mitigation: 0.010								Luo											-
v/c less ATSAC adjustment: 0.787 0.837 0.837 0.847 0.847 Level of Service (LOS): C D D D D Filename: K1LDT_LDEV99038001 Washington & National LowelDocuments\Traffic/Analysis/CMACalc_Final_2019.xt/ Change in v/c due to project: 0.010 Δv/c after mittigation: 0.010	\/olumo/oo	anacity (v/a) ratio		. otal.					. otai.					, otal.				· otal.	
Level of Service (LOS): C D D D Filename: K1LDT_LDEV/99038001 Washington & National Lowe\Documents\Traffic\Analysis/CMACalc_Final_2019.xt; Change in v/c due to project; 0.010 $\Delta v/c$ after mitigation; 0.010																			
Filename: K1LDT_LDEV/99038001 Washington & National Lowe\Documents\Traffic\Analysis\CMACalc_Final_2019.xt} Change in v/c due to project: 0.010 Δv/c after mitigation: 0.010		-																	
Filename: K1LDT_LDEV199038001 Washington & National LowelDocuments\Traffic\Analysis\CMACalc_Forms\CMACalc_Final_2019.xt} Change in v/c due to project: 0.010 \Delta v/c after mitigation: 0.010	Level	of Service (LOS):			С					D									D
															-				
	Filename:	K:\LDT_LDEV\99038001 Washi	ington & National Lowe	e\Documents\Tr	affic\Analysis\CMA	Calc Forms\CMAC	alc_Final_2019.xl:			С	•					$\Delta v/c$ after	mitigation:	(
Developed 2005-2007 by Ken Aitchison Significantly impacted? NO Fully mitigated? N/A	Developed 200	5-2007 by Ken Aitchis	son								Sign	ificantly i	mpacted?		NO	Fully	mitigated?		N/A

															r			
Intersecti	ion No. 12		, EXIST		2019,	PROJEC	TED CUML	JLATI VE	BASE	_		, WITH PF	ROJECT		2019, WI	TH TRAFF	IC MITI	GATION
North/South Stre		Critical	Phases:	4	Ambient G	irowth	Critical	Phases:	4	Adj	acent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	4
La Cienega	Boulevard	Ca	apacity:	1375	from:	2014	C	apacity:	1375	Trip	AM	173	83	256		С	apacity:	1375
East/West Stree	et:	Signal S	System:	3	to:	2019	Signal	System:	3	Gen 1	PM	127	174	301	🗖 Use Dist	21 Signal	System:	3
Venice Boul	levard	v/c red	duction:	10%	at:	1.0%	v/c re	duction:	10%	Trip	AM	0	0	0	-	v/c re	duction:	10%
Analysis Date:	10/29/2015	Opposed P	hasing:	0			Opposed	Phasing:	0	Gen 2	PM	0	0	0		Opposed F	hasing:	0
PM Peak:	5:00 PM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	Total		Lane	Adjusted	Total		Lane
	0.001 1	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume		olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
Left رَح		70	1	70	4		74	1	74	0%	0	74	1	74	0	74	1	74
	<u>N/B RTOR:</u>		0	0				0	0	0%			0	0	-		0	0
<u> </u>	Existing: 75%	1006	2	349	51		1057	2	366	0%	0	1057	2	366	0	1057	2	366
ਦੂੰ ∱ Th-Rt	Projected: 75%		1	349	0.			1	366	0%			1	366	- V		1	366
-	Mitigated: 75%	40	0	0	2		42	0	0	0%	0	42	0	0	0	42	0	0
[∠] ↔ Shared		-0	0	0	2		72	0	0	0%	V	72	0	0		72	0	0
-o └→Left		63	1	63	3		66	1	66	0%	0	66	1	66	0	66	1	66
Ğ ,⊳Lt-Th	S/B RTOR:	03	0	0	3		00	0	0	0%	U	00	0	0	U	00	0	0
pun o↓Lt-Th oqu thru thru thru ru Right	Existing: 50%	1040	2	492	63		1202	2	517	0%	0	1202	2	521	•	1000	2	521
∰ d Th-Rt	Projected: 50%	1240	1	492	03		1303	1	517	0%	U	1303	1	521	0	1303	1	521
Right	Mitigated: 50%	005	0	0			o 17	0	0	10%	40		0	0			0	0
^𝔅 ↔ Shared	0	235	0	0	12		247	0	0	0%	13	260	0	0	0	260	0	0
→ Left			2	161				2	169	(10%)			2	179			2	179
	E/B RTOR:	293	0	0	15		308	0	0	0%	18	326	0	0	0	326	ō	0
tr-Lt-Lt tr tr tr tr tr tr tr tr tr tr tr tr tr	Existing: 50%		3	485				3	517	(5%)			3	520			3	520
tind tig → Th-Rt	Projected: 50%	1456	0		74	21	1551	0 0	0	0%	8	1559	0 0	0	0	1559		0
	Mitigated: 50%		1	107				1	112	0%			1	112			1	112
	winigated. 50%	142	0	0	7		149	1	0	0%	0	149	0	0	0	149	0	0
→ Shared			1					0	195	0%			1	195			1	195
		186		186	9		195	L			0	195	L	195	0	195	- L	
Lt-Th	W/B RTOR:		0	0				0	0	0%			0				0	0
tt-Th c← Thru ts ← Th-Rt	Existing: 50%	984	3	328	50	12	1046	3	349	5%	6	1052	3	351	0	1052	3	351
$\frac{1}{10}$ $\stackrel{\text{c}}{\leftarrow}$ Th-Rt	Projected: 50%		0	0				0	0	0%			0	0			0	0
	Mitigated: 50%	56	1	24	3		59	1	26	0%	0	59	1	26	0	59	1	26
> → Shared			0	0				0	0	0%			0	0			0	0
Cr	itical Volumes:	North-	South:	562			North	-South:	590			North-	South:	595		North-	South:	595
		East	-West:	671			East	t-West:	713			East	-West:	715		East	-West:	715
			Total:	1233				Total:	1303				Total:	1310			Total:	1310
Volume/ca	apacity (<i>v/c</i>) ratio:			0.897					0.948					0.953				0.953
				0.797					0.848					0.853				0.853
	SAC adjustment:																	
Level	of Service (LOS):			С					D				<u> </u>	D				D
														ЕСТ	IMPA			· · · · ·
Filename:	K:\LDT_LDEV\99038001 Washi	ington & National Low	e\Documents\T	raffic\Analysis\CMA	ACalc Forms\CMAC	alc_Final_2019.xl			С	•		to project:		0.005	$\Delta v/c$ after	mitigation:		0.005
Developed 200	5-2007 by Ken Aitchis	son								Sign	ificantly	impacted?		NO	Fully	mitigated?		N/A

					1										1			
Intersection No. 13	3	2014,	EXISTI	ING	2019	PROJEC	TED CUMU	LATIVE	BASE			, WITH PF	ROJECT		2019, WI	TH TRAFF		GATION
North/South Street:		Critical F	hases:	4	Ambient C	<u>Growth</u>	Critical	Phases:	4	Ad Ad	jacent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	4
Fairfax Blvd		Са	pacity:	1375	from:	2014	С	apacity:	1375	Trip	AM	173	83	256		С	apacity:	1375
East/West Street:		Signal S	ystem:	3	to:	2019	Signal S	System:	3	Gen 1	PM	127	174	301	Use Dist	21 Signal	System:	3
Washington Blvd		v/c red	uction:	10%	at:	1.0%	v/c red	duction:	10%	Trip	AM	0	0	0		v/c ree	duction:	10%
Analysis Date: 10/29/20)15	Opposed Pl	hasing:	0			Opposed F	hasing:	0	Gen 2	PM	0	0	0		Opposed F	hasing:	0
AM Peak: 8:00 A	N/	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	= Total		Lane	3	Total		Lane
		Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume		/olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
בי Left		21	1	21	1		22	1	22	0%	0	22	1	22	0	22	1	22
$= \int \frac{1}{2} \int \frac{1}{2} Lt - Th$ <u>N/B RTOR:</u>			0	0				0	0	0%			0	0			0	0
C Right Mitigated: 75		904	2	452	46	6	956	2	478	0%	0	956	2	478	0	956	2	478
↓ Th-Rt Projected: 75	5%		0	0		Ŭ	000	0	0	0%		000	0	0	· · ·		0	0
	5%	375	1	106	19	6	400	1	86	0%	0	400	1	86	0	400	1	86
∠		010	0	0	10	0	400	0	0	0%	U	400	0	0	U	400	0	0
⊸ ^{Left}		162	2	<mark>89</mark>	8		170	2	94	0%	0	170	2	94	0	170	2	94
$\begin{array}{c} & \downarrow \\ & \downarrow \\$		102	0	0	0		170	0	0	0%	U	170	0	0	U	170	0	0
S ↓ Thru Existing: 50%	%	674	1	357	34	40	750	1	396	0%	0	750	1	401	0	750	1	401
Th-Rt Projected: 50	0%	074	1	357	- 34	42	750	1	396	0%	U	750	1	401	0	750	1	401
Right Mitigated: 50)%	10	0	0			10	0	0	5%	_	- 4	0	0	•	- 4	0	0
^𝔅 ↔ Shared		40	0	0	2		42	0	0	0%	9	51	0	0	0	51	0	0
⊅ Left			1	62				1	65	(5%)			1	69	_		1	69
$\begin{array}{c} \text{Pu} \not \rightarrow \text{Lt-Th} \\ \text{Op} \not \rightarrow \text{Thru} \\ \text{Op} \not \rightarrow \text{Thru} \\ \text{Existing: 509} \\ \text{Th-Rt} \\ \text{Projected: 500} \end{array}$		62	0	0	3		65	0	0	0%	4	69	0	0	0	69	0	0
$\overrightarrow{O} \rightarrow Thru$ Existing: 50%	26		2	163				2	176				2	179			2	179
$f_{ij} \rightarrow Th-Rt$ Projected: 50		478	1	163	24	14	516	1	176	0%	9	525	1	179	0	525	1	179
Right Mitigated: 50			Ö	0				0	0	0%			0	0			0	0
Shared	,,,,	12	Ö	0	1		13	0	0	0%	0	13	0	0	0	13	0	0
			2	197				2	231	0%			2	231			2	231
		359	0	197	18	42	419	2	231	0%	0	419	2	231	0	419	2	231
$\Box \swarrow$ Lt-Th <u>W/B RTOR:</u> $O \leftarrow$ Thru Existing: 509			_	· · · · · ·					-				-	536			- -	•
		971	2	486	50	34	1055	2	527	10% 0%	17	1072	2		0	1072	2	536
$\frac{1}{10} \stackrel{\text{c}}{\leftarrow} \text{Th-Rt}$ Projected: 50			0	0				0	0				0	0			0	0
Mitigated: 50)%	104	1	23	5		109	1	24	0%	0	109	1	24	0	109	1	24
> > Shared			0	0				0	0	0%			0	0			0	0
Critical Volur	mes:	North-S	South:	541			North-	South:	572			North-	South:	572		North-	South:	572
		East-	West:	548			East	-West:	592			East	-West:	605		East	-West:	605
		-	Total:	1089				Total:	1164				Total:	1177			Total:	1177
Volume/capacity (v/c)	ratio:			0.792					0.847					0.856				0.856
v/c less ATSAC adjustr				0.692					0.747					0.756				0.756
Level of Service (L				0.072 B					C.747					0.750				
	.03):			Б					U					ECT				С
									_		, .				IMP A			0 000
Filename: K:\LDT_LDEV\990380		-	\Documents\Tr	raffic\Analysis\CMA	Calc Forms\CMAC	alc_Final_2019.xl:			С	•		to project:		0.009	$\Delta v/c$ after	0		0.009
Developed 2005-2007 by Ken	Aitchiso	on								Sign	iticantly	impacted?		NO	Fully	mitigated?		N/A

Intersect	ion No. 13	2014	, EXIST	ING	2019	PROJEC	TED CUMU	LATIVE	BASE		2019	, WITH PF	20 IFCT		2019 WI	TH TRAFF		GATION
North/South St			Phases:		Ambient 0			Phases:		Adj	acent	<u>In</u>	Out	<u>Total</u>			Phases:	
Fairfax Blv			apacity:		from:	2014	С	apacity:	1375	Trip	AM	173	83	256	-	С	apacity:	1375
East/West Stree	et:		System:		to:	2019		System:		Gen 1	PM	127	174		Use Dist		System:	
Washington		Ũ	duction:		at:	1.0%	0	duction:		Trip	AM	0	0	0		•	duction:	
Analysis Date:		Opposed P	hasing:	0			Opposed F	hasing:	0	Gen 2	PM	0	0	0		Opposed F	hasing:	0
PM Peak:		Counts	-	Lane	+ Amb.	+ Area	= Total		Lane	+ F	Project	Total		Lane	Adjusted	Total		Lane
-	5.00 T W	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume		/olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
		5	1	5	0		5	1	5	0%	0	5	1	5	0	5	1	5
ך ל Lt-Th	<u>N/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
Q Î Thru	Existing: 75%	797	2	399	41	37	875	2	437	0%	0	875	2	437	0	875	2	437
p Ltert un ↑ Lt-Th oq ↑ Thru un ↑ Th-Rt or Right	Projected: 75%		0	0				0	0	0%			0	0	-		0	0
O C Right	Mitigated: 75%	623	1	419	32	37	692	1[472	0%	0	692	1	472	0	692	1	472
Shared			0	0				0	0	0%	_		0	0			0	0
		316	2	174	16		332	2	183	0%	0	332	2	183	0	332	2	183
pun ↓ Lt-Th oq ↓ Thru un ↓ Th-Rt o ↓ Right	<u>S/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
O Thru	Existing: 50%	606	1	349	31	8	645	1	370	0%	0	645	1	373	0	645	1	373
th-Rt	Projected: 50%		1	349		_		1	370	0%			1	373			1	373
(A) . ~	Mitigated: 50%	91	0	0	5		96	0	0	5%	6	102	0	0	0	102	0	0
Shared			0	0				0	0	0%	_		0	0			0	0
		78	1	78	4		82	1	82	(5%)	8	90	1	90	0	90	1	90
Lt-Th → Thru tsponud Th-Rt Right	E/B RTOR:		0 0	0				0 0	0	0%			0 0	0			0	0
$\vec{O} \rightarrow \text{Thru}$	Existing: 50%	888	2	300	45	39	972	2	328	(10%)	18	990	2	334	0	990	2	334
Th-Rt	Projected: 50%		1	300				1	328	0%			1	334			1	334
- 1	Mitigated: 50%	12	0	0	1		13	0	0	0%	0	13	0	0	0	13	0	0
→ Shared			0 2	0				0 2	100	0% 0%			0	100			0	162
		272		150	14	8	294		162		0	294	2	162	0	294	2 0	162
tt-Th c ← Thru ts ← Th-Rt	W/B RTOR:		0	0				0	283	0% 10%			0	0 289				289
$\begin{array}{c} 0 \leftarrow \text{Thru} \\ q \\ t \\ t$	Existing: 50%	517	2	259 0	26	22	565	2 0	203	0%	13	578	2 0	209	0	578	2	209
$\stackrel{\circ}{\rightarrow}$ $\stackrel{\circ}{\leftarrow}$ Right	Projected: 50% Mitigated: 50%		1	0				1	0	0%			1	0			1	0
Shared	Winigated. 50%	55	0	0	3		58	0	0	0%	0	58	0	0	0	58	0	0
			•						0	0 /0				v			•	•
C	ritical Volumes:	North-		593				South:	654			North-		654			South:	654
			-West:	450				-West:	490				-West:	496			-West:	496
			Total:	1042				Total:	1144				Total:	1150			Total:	1150
Volume/ca	apacity (<i>v/c</i>) ratio:			0.758					0.832					0.837				0.837
v/c less A⊺	TSAC adjustment:			0.658					0.732					0.737				0.737
Level	of Service (LOS):			В					С					С				С
												ΡR	OJE	ЕСТ	IMPA	ΑСТ		•
Filename:	K:\LDT_LDEV\99038001 Wash	ington & National Low	e\Documents\Ti	raffic\Analysis\CMA	ACalc Forms\CMAC	alc_Final_2019.xl			С	hange in	v/c due	to project:		0.005	$\Delta v/c$ after	mitigation:		0.005
Developed 200	05-2007 by Ken Aitchis			2		-				Ū		impacted?		NO		mitigated?		N/A
-										- J.	. ,					5		

				r													
Intersection No. 14	-	, EXIST		2019	, PROJEC	TED CUMULA	ATI VE	BASE	-		, WITH PF	ROJECT		2019, WI	TH TRAFF		
North/South Street:	Critical	Phases:	4	Ambient (<u>Growth</u>	Critical Ph	nases:	4	Adj	acent	<u>In</u>	<u>Out</u>	<u>Total</u>	-	Critical	Phases:	4
Jefferson Blvd		apacity:		from:	2014	Capa	acity:	1375	Trip	AM	173	83	256		С	apacity:	1375
East/West Street:	Signal S	System:	3	to:	2019	Signal Sys	stem:	3	Gen 1	PM	127	174	301	Use Dist	21 Signal	System:	3
National Blvd	v/c red	duction:	10%	at:	1.0%	v/c reduc	ction:	10%	Trip	AM	0	0	0		v/c re	duction:	10%
Analysis Date: 10/29/2015	Opposed P	hasing:	2			Opposed Pha	asing:	2	Gen 2	PM	0	0	0		Opposed I	Phasing:	2
AM Peak: 8:00 AM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	= Total		Lane	,	Total		Lane
5 Loft	Volume	Lanes	Volume	Growth	Projects	Volume L	anes	Volume		/olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume 344
\downarrow Lt-Th <u>N/B RTOR:</u>	315	1	<u>315</u>	16	4	335		335	5% 0%	9	344	1	344	- 0	344	1	344
		0	· · · ·				0	0				0	· · · ·			0	•
C Thru Existing: 75%	709	2	355	36	64	809	2	405	0%	0	809	2	405		809	2	405
↓ Th-Rt Projected: 75%		0	0				0	0	0%			0	0			0	0
	26	1	25	1		27	1	26	0%	0	27	1	26		27	1	26
[∠] ↔ Shared		0	0				0	0	0%	-		0	0			0	0
$\begin{array}{c} & & \downarrow \text{Left} \\ & & \downarrow \text{Lt-Th} \\ & & \downarrow \text{Lt-Th} \\ & & \downarrow \text{Thru} \\ & & \downarrow \text{Thru} \\ & & \downarrow \text{Th-Rt} \\ & & Projected: 50\% \\ & & \downarrow \text{Right} \end{array}$	5	1	5	0		5	1	5	0%	0	5	1	5	0	5	1	5
S/B RTOR:		0	0				0	0	0%			0	0			0	0
C ↓ Thru Existing: 50%	808	1	808	41	18	867	1	867	0%	0	867	1	867	0	867	1	867
$rac{1}{2}$ $rac{1}{2}$ Th-Rt Projected: 50%		0	0				0	0	0%			0	0			0	0
Right Mitigated: 50%	703	1	567	36	88	827	1	638	5%	8	835	1	644	0	835	1	644
⁰⁷ ↔ Shared		0	0				0	0	0%			0	0			0	0
Left	272	1	150	14	93	379	1	208	(5%)	4	383	1	211	0	383	1	211
$\begin{array}{c} \text{Point } & \text{Edd} \\ \text{Point } & \text{Edd} \\ \text{Projected: 50\%} \\ \text{Projected: 50\%} \end{array}$		1	152			0.0	1	202	0%			1	204			1	204
$\overrightarrow{O} \rightarrow \text{Thru}$ Existing: 50%	30	0	0	2		32	0	0	0%	0	32	0	0	()	32	0	0
$\frac{1}{50}$ $$ Th-Rt Projected: 50%		0	0				0	0	0%			0	0			0	0
Right Mitigated: 50%	234	1	76	12	3	249	1	81	(5%)	5	254	1	82		254	1	82
	201	0	0	12	Ŭ	210	0	0	0%	0	201	0	0		201	0	0
⊖ ← Left	1	0	0	0		1	0	0	0%	0	1	0	0		1	0	0
C ↓ Left S ↓ Lt-Th <u>W/B RTOR:</u>	· ·	1	25	Ŭ			1	26	0%			1	26	_		1	26
O ← Thru Existing: 50%	24	0	0	1		25	0	0	0%	0	25	0	0	0	25	0	0
Th-Rt Projected: 50%	27	0	0			20	0	0	0%		20	0	0		20	0	0
$ \overset{\textcircled{0}}{\underset{t}{\overset{\leftarrow}{\atop}}} \overset{\leftarrow}{\underset{t}{\overset{\text{Right}}{\overset{\text{Mitigated: 50\%}}{\overset{}}}}}} } $	5	1	3	0		5	1	2	0%	0	5	1	2	0	5	1	2
Shared	5	0	0	0		5	0	0	0%	0	5	0	0	•	5	0	0
Critical Volumes:	North-	South:	1123			North-So	outh:	1202			North-	South:	1211		North	South:	1211
		-West:	177			East-W		235				-West:	237			-West:	237
		Total:	1300				otal:	1437				Total:	1448			Total:	1448
Volume/capacity (v/c) ratio:			0.946					1.045					1.053				1.053
			0.846					0.945					0.953				0.953
v/c less ATSAC adjustment:																	
Level of Service (LOS):			D					E					<u> </u>				E
											<u>P R</u>		<u>E C T</u>	IMPA			
Filename: K:\LDT_LDEV\99038001 Wash	-	e\Documents\T	raffic\Analysis\CM/	ACalc Forms\CMAC	alc_Final_2019.xl:			С	•		to project:		0.008		0		0.008
Developed 2005-2007 by Ken Aitchi	ison								Sign	ificantly	impacted?		NO	Fully	mitigated?		N/A

					-													
Intersection No.	14	2014,	2014, EXISTING 2019, PROJECTED CUMULATIVE B			BASE	· ·					2019, WITH TRAFFIC MITIGATION						
North/South Street:		Critical I	Phases:	4	Ambient C	<u>Growth</u>	Critical Pl	hases:	4		acent	<u>In</u>	<u>Out</u>	<u>Total</u>	-	Critical	Phases:	4
Jefferson Blvd		Ca	apacity:	1375	from:	2014	Cap	oacity:	1375	Trip	AM	173	83	256			apacity:	1375
East/West Street:		Signal S	System:	3	to:	2019	Signal Sy	/stem:	3	Gen 1	PM	127	174	301	Use Dist	21 Signal	System:	3
National Blvd		v/c red	luction:	10%	at:	1.0%	v/c redu	uction:	10%	Trip	AM	0	0	0		v/c re	duction:	10%
Analysis Date: 10/29/2	2015	Opposed P	hasing:	2			Opposed Ph	iasing:	2	Gen 2	PM	0	0	0		Opposed	Phasing:	2
PM Peak: 5:00	PM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	Total		Lane	3	Total		Lane
5 1		Volume	Lanes	Volume 192	Growth		Volume	Lanes	Volume 205	5%	/olume	Volume	Lanes	Volume 212		Volume	Lanes	Volume 212
).	192	0	192	10	3	205	0	205	0%	7	212	0	212		212	0	212
Station 7				396					426	0%			2	426				426
C ↑ Thru Existing: 7		791	2		40	20	851	2		0%	0	851	2	420		851	2	420
Th-Rt Projected:			0	0				0	0				0	0			0	0
-	/5%	6	1	0	0		6	1	0	0% 0%	0	6	1	0	0	6	1	0
[∠] ↔ Shared			1	<u>0</u> 2				0	2	0%			<u> </u>	2			0	0
		2		2	0		2	1	2	0%	0	2		2	0	2		2
$\begin{array}{c} \begin{array}{c} & & \\ $			0					0	500				0	500	-		0	500
C ↓ Thru Existing: 5		485	1	485	25	58	568	1	568	0%	0	568	1	568	0	568	1	568
H Th-Rt O → Right Mitigated:			0	0				0	0	0%			0	0			0	0
	50%	224	1	0	11	97	332	1	0	5%	6	338	1	0	0	338	1	0
→Shared			0	0				0	0	0%			0	0	-		0	0
		564	1	310	29	93	686	1	377	(5%)	9	695	1	382		695	1	382
$\begin{array}{c} \text{PU} \stackrel{\text{Lorn}}{\rightarrow} \text{Lt-Th} \\ \text{OO} \stackrel{}{\rightarrow} \text{Thru} \\ \text{OO} \stackrel{}{\rightarrow} \text{Thru} \\ \text{Existing: 5} \\ \text{Frojected: } \end{array}$			1	267				1	322	0%			1	326			1	326
$\vec{O} \rightarrow \text{Thru}$ Existing: 5		13	0	0	1	0	14	0	0	0%	0	14	0	0		14	0	0
$\frac{1}{2}$ $$ Th-Rt Projected:			0	0				0	0	0%			0	0			0	0
Right Mitigated:	50%	414	1	318	21	5	440	1	338	(5%)	9	449	1	343		449	1	343
			0	0		_		0	0	0%	-		0	0	_	-	0	0
ס Left		13	0	0	1		14	0	0	0%	0	14	0	0		14	0	0
$\begin{array}{c} p & \downarrow Lt-Th \\ p & Lt-Th \\ p & Lt-Th \\ p & Thru \\ t_{1} & Th-Rt \end{array} \qquad \begin{array}{c} W/B \ RTOI \\ Existing: 5 \\ Projected: \end{array}$			1	43				1	45	0%			1	45			1	45
$O \leftarrow Thru$ Existing: 5		30	0	0	2		32	0	0	0%	0	32	0	0		32	0	0
$\frac{1}{5} \stackrel{\leftarrow}{\leftarrow} \text{Th-Rt} \qquad \frac{\text{Projected:}}{1}$			0	0				0	0	0%			0	0			0	0
$\overset{O}{\Rightarrow} \overset{\leftarrow}{\underset{t}{\leftarrow}} \text{Right}$ Mitigated:	50%	14	1	13	1		15	1	14	0%	0	15	1	14	()	15	1	14
> → Shared			0	0				0	0	0%			0	0			0	0
Critical Vol	umes:	North-S	South:	677			North-S	outh:	773			North-	South:	780		North	South:	780
		East-	West:	361			East-V	Nest:	422			East	-West:	427		East	-West:	427
		-	Total:	1038			Т	otal:	1195				Total:	1207			Total:	1207
Volume/capacity (v/c) ratio:			0.755					0.869					0.878				0.878
v∕c less ATSAC adjus	stment [.]			0.655					0.769					0.778				0.778
Level of Service				B					C					C				C
	(200).			D	1				C			P R		ECT	ΙΜΡΛ	ЛСТ		C
									0	hango in	ula dua							
		ington & National Lowe	Documents\Tr	raffic\Analysis\CM	ACalc Forms\CMAC	Calc_Final_2019.xl:			C	•		to project:		0.009		0		0.009
Developed 2005-2007 by K	en Aitchis	son								Sign	incantly	impacted?		NO	Fully	mitigated?		N/A

		-			1					1								
Intersecti			, EXIST				TED CUMU					, WITH PF			2019, WI	TH TRAFF		
North/South Stre		Critical	Phases:	2	Ambient G			Phases:			acent	<u>In</u>	<u>Out</u>	<u>Total</u>			Phases:	
Robertson E			apacity:		from:			apacity:		Trip	AM	173	83	256			apacity:	
East/West Street	t:	Signal S	System:	3	to:	2019	Signal	System:	3	Gen 1	PM	127	174	301	Use Dist	21 Signal	System:	3
I-10 WB Off		v/c red	duction:	10%	at:	1.0%		duction:		Trip	AM	0	0	0		v/c ree	duction:	10%
Analysis Date:	10/29/2015	Opposed P	hasing:	2			Opposed I	Phasing:		Gen 2	PM	0	0	0		Opposed F	hasing:	2
AM Peak:	8:00 AM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	= Total		Lane	Adjusted	Total		Lane
5 1-6		Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume 59	0%	/olume	Volume	Lanes	Volume 59	Volume	Volume	Lanes	Volume 59
		56		<u>56</u>	3		59	1	59	0%	0	59	L	<u> </u>	0	59	0	<u> </u>
S ← Lt-Th	N/B RTOR:		0					0					0	· ·				•
	Existing: 75%	1251	2	626	64	2	1317	2	658	0%	0	1317	2	658	0	1317	2	658
£ ∱ Th-Rt	Projected: 75%		0	0				0	0	0%			0	0			0	0
	Mitigated: 75%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
Shared			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
S ≻Lt-Th	<u>S/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
pun ↓Lt-Th oqu ↓ Thru u ↓ Th-Rt o ↓ Right	Existing: 50%	1402	1	731	72	2	1476	1	769	0%	0	1476	1	769	0	1476	1	769
t th-Rt	Projected: 50%		1	731		-		1	769	0%			1	769			1	769
	Mitigated: 50%	59	0	0	3		62	0	0	0%	0	62	0	0	0	62	0	0
→Shared			0	0			02	0	0	0%	U	02	0	0	V	02	0	0
Left		128	1	128	7		135	1	135	0%	0	135	1	135	0	135	1	135
Lt-Th → Thru ts → Th-Rt	E/B RTOR:	120	0	0			155	0	0	0%	U	155	0	0	U	155	0	0
ਰੂ → Thru	Existing: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
$\frac{1}{10}$ $$ Th-Rt	Projected: 50%	U	0	0	0		0	0	0	0%	U	0	0	0	U	U	0	0
	Mitigated: 50%	60	1	32	2		60	1	34	0%	0	60	1	34	0	60	1	34
Generation Shared		60	0	0	3		63	0	0	0%	U	63	0	0	U	63	0	0
_ C Left		70	0	0		040	000	0	0	10%	18	0.40	0	0	0	0.40	0	0
p↓ Lent un ❤ Lt-Th	W/B RTOR:	78	1	119	4	240	322	1	365	0%	10	340	1	383	0	340	1	383
o ← Thru	Existing: 50%		0	0	0		40	0	0	0%	~	40	0	0		40	0	0
Thru to ← Thru to ↓ Th-Rt	Projected: 50%	41	0	0	2		43	0	0	0%	0	43	0	0	0	43	0	0
	Mitigated: 50%	405	1	125			404	1	131	0%		404	1	131	0	404	1	131
> → Shared	-	125	0	0	6		131	0	0	0%	0	131	0	0	0	131	0	0
	itical Volumes:	North-	South	787			North	South:	828			North	South:	828		North-	South	828
	litear volumes.		-West:	253				-West:	500				-West:	518			-West:	518
			Total:	1040			Easi		1327				Total:	1345			Total:	1345
			rotal.					Total:					rotal.				rotal.	
	pacity (<i>v/</i> c) ratio:			0.693					0.885					0.897				0.897
v∕c less AT	SAC adjustment:			0.593					0.785					0.797				0.797
Level	of Service (LOS):			А					С					С				С
												PR	OJE	ЕСТ	IMPA	A C T		
Filename:	K:\LDT_LDEV\99038001 Washi	ington & National Low	e\Documents\Ti	raffic\Analysis\CMA	Calc Forms\CMAC	alc_Final_2019.xl:			С	hange in	v∕c due	to project:		0.012	$\Delta v/c$ after	mitigation:	(0.012
	5-2007 by Ken Aitchis	-		-						•		impacted?		NO		mitigated?		N/A
										5	5				,	5		

$\begin{array}{c c c c c c c c c c c c c c c c c c c $																			
Cobstrand Bivel Capacity: 1500 Trom: 2014 Capacity:																			
add/West Street: Signal System: 3 Signal System: 3 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>																			
-10 WB Offramp vic reduction: 10% at: 1.0% vic reduction: 10% vic																		. ,	
Analysis Date: 10/29/2016 Opposed Preading: 2 Correct Product Co		_	Ũ	,				0	5							Use Dist	0	2	
PM Peak: 5:00 PM Courts area Lane +Amo. +Ame. -Total Lane Value Lane Lane Value Lane Value Lane Value Lane Value Lane Value Value Value<						at:	1.0%				Trip				0				
Priv Peak: Submer Volume Lanes Volume <thlanes< th=""> Lanes Lanes</thlanes<>	Analysis Date:	10/29/2015		hasing:	2				Phasing:				-	0	-			hasing:	2
Left Dubling D	PM Peak:	5:00 PM		Lanaa								-		Lamaa		3		1.0000	
33 0 2 35 0 0 35 0 0 35 0 0 35 0 0 35 0 0 35 0<	5 1.4			Lanes		Growin	Projects		Lanes							volume		Lanes	
2			33			2		35	1			0	35			0	35		
2					-					-					•				455
2		•	863			44	2	909				0	909		_	0	909	2	
2		2							· · · ·	0					0			0	0
SLeft 0 <td></td> <td>Mitigated: 75%</td> <td>0</td> <td></td> <td></td> <td>0</td> <td></td> <td>0</td> <td></td> <td>0</td> <td></td> <td>0</td> <td>0</td> <td>· · · · ·</td> <td>0</td> <td>0</td> <td>0</td> <td></td> <td>0</td>		Mitigated: 75%	0			0		0		0		0	0	· · · · ·	0	0	0		0
UP LLT.IN SERTICE: U					<u> </u>										0			· · ·	0
36 36 0 2 38 0 0% 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0			0		· · · · ·	0		0				0	0		0	0	0		0
36 36 0 2 38 0 0% 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0	J PLt-In			0					0	-					0	-		0	0
36 36 0 2 38 0 0% 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0	O ↓ Thru	•	1469	1		75	2	1546	1			0	1546			0	1546	1	
36 36 0 2 38 0 0% 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0 0 38 0	th-Rt	2		1	753	_	_		1	792				• L	792			1	792
Shared 0		Mitigated: 50%	36		0	2		38		0		0	38		0	0	38		0
g _ Lit.Th <i>L</i> BRTOR: 71 0 0 0 0 0% 0 75 1 10 0 <td>↔Shared</td> <td></td> <td></td> <td>0</td> <td><u> </u></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> <td></td> <td></td> <td></td> <td>_</td> <td>0</td> <td>· · ·</td> <td></td> <td><u> </u></td> <td>0</td>	↔Shared			0	<u> </u>					0				_	0	· · ·		<u> </u>	0
G L1-th EBROR: 0	Lon		71	1		4		75				0	75			0	75		
Sight Mitigated: 50% 59 1 43 3 62 1 45 0% 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 <th0< th=""> 0 <th0< th=""> 0</th0<></th0<>	$\subseteq \checkmark Lt-Th$	<u>E/B RTOR:</u>	<i>,</i> , ,	0	0	-		10	0	0			10		0	, v	10	0	0
Sight Mitigated: 50% 59 1 43 3 62 1 45 0% 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 <th0< th=""> 0 <th0< th=""> 0</th0<></th0<>	od → Thru	Existing: 50%	0	0	•	0		0		0		0	0		0	0	0	0	0
Sight Mitigated: 50% 59 1 43 3 62 1 45 0% 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 62 1 45 0 <th0< th=""> 0 <th0< th=""> 0</th0<></th0<>	ਜੋਂ ⊤ Th-Rt	Projected: 50%	v	0	-	Ŭ		Ŭ	0	0	0%	<u> </u>	Ŭ	0	0	•	Ŭ	0	0
Shared O <td></td> <td>Mitigated: 50%</td> <td>59</td> <td>1</td> <td>43</td> <td>3</td> <td></td> <td>62</td> <td>1</td> <td>45</td> <td>0%</td> <td>0</td> <td>62</td> <td></td> <td>45</td> <td>0</td> <td>62</td> <td>1</td> <td>45</td>		Mitigated: 50%	59	1	43	3		62	1	45	0%	0	62		45	0	62	1	45
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National Boulevard	Capacity: 1375	from: 201	4 Capacity:	1375	Trip	AM	192	98	290		C	apacity:	1375
East/West Street:	Signal System: 2	to: 201	9 Signal System:	2	Gen 1	PM	149	193	342	Use Dist	21 Signal	System:	2
Project Main Dwy	v/c reduction: 7%	at: 1.0	v/c reduction:	7%	Trip	AM	0	0	0		v/c re	duction:	7%
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Volume/capacity (v/c) ratio:	0.000			0.000					0.453				0.453
v/c less ATSAC adjustment:									0.383				0.383
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Intersection No. 16	2014, EXISTING				BASE			WITH PRC	JECT		2019, WITH TRAFFIC MITIGATION			
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National Boulevard	Capacity: 1375	from:	2014	Capacity:	1375	Trip	AM	192	98	290		C	apacity:	1375
East/West Street:	Signal System: 2	to:	2019	Signal System:	2	Gen 1	PM	149	193	342	⊡ Use Dist	21 Signal	System:	2
Project Main Dwy	v/c reduction: 7%	at:	1.0%	v/c reduction:	7%	Trip	AM	0	0	0		v/c ree	duction:	7%
Analysis Date: 10/29/2015	Opposed Phasing: 2			Opposed Phasing:	2	Gen 2	PM	0	0	0	Ļ	Opposed F	Phasing:	2
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Critical Volumes:	North-South: 0			North-South:	0			North-	South:	643		North-	South:	643
	East-West: 0			East-West:	0			East	-West:	106		East	-West:	106
	Total: 0			Total:	0				Total:	749			Total:	749
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APPENDIX D

SUPPLEMENTAL STUDY TECHNICAL MEMORANDUM

Kimley »Horn

TECHNICAL MEMORANDUM

То:	Barry Kurtz (City of Culver City) John Fisher (City of Culver City)
From:	Sri Chakravarthy, P.E., T.E. (Kimley-Horn and Associates, Inc.) Vikas Sharma, P.E. (Kimley-Horn and Associates, Inc.)
Date:	October 20, 2015
Subject:	Supplemental Study for Ivy Station TOD Traffic Impact Analysis Report

Background

Kimley-Horn submitted the draft Traffic Impact Analysis (TIA) for Ivy Station TOD mixed-use development for City and LADOT review in July 2015. Pursuant to that, City of Culver City and LADOT provided review comments. The comments included a need for a detailed queueing analysis for National Boulevard between Washington Boulevard and Venice Boulevard to better understand the future traffic operations on this corridor. Kimley-Horn prepared a detailed traffic simulation of the study area and presented it to the City staff in a separate meeting on August 17, 2015 and subsequently prepared a response letter to comments and submitted to the City on September 1, 2015. Additionally, to address City staff's concerns, Kimley-Horn met with the City staff on September 29, 2015 and presented the traffic simulation model of the Study area traffic signals to engineering and planning staff. In this meeting, Kimley-Horn's traffic simulation suggested that the traffic signals in the study area along National Boulevard possibly could be programmed to avoid long queueing and provide progression in the north-south directions. City staff indicated that the simulation seemed to show better traffic flow than currently exists. However, Kimley-Horn explained that the simulation was a best effort to estimate future queues and that queues are "dynamic" in nature and can clear out efficiently under conditions that allow optimal traffic signal timing. This supplemental analysis provides the follow-up documentation on this analysis and presentation to the City.

Underlying Assumptions and Analysis

For the traffic simulation model, the following assumptions were used in this analysis:

- The traffic model utilized 2017 With Project traffic volumes for the PM peak hour to simulate the worst case scenario.
- A cycle length of 120 seconds was assumed at all traffic signals.
- The base timing for the traffic models was kept at default values in Synchro software.
- The geometric conditions at the study locations included mitigation improvements proposed in the traffic study (dual NB left turns and dedicated NB right turn lane at National/Venice and a short SB left turn at Main Driveway).
- All functional right turns were coded as dedicated turn lanes to reflect the operational behavior of the driver. This is necessary since Simtraffic software is not able to simulate these turns otherwise.

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- Offsets were adjusted along National Boulevard, Venice Boulevard and Washington Boulevard to optimized levels for flow in both east-west and north-south directions.
- The discharge rates at all study intersections were adjusted to reflect the residual queuing that will occur in the field.

The graphics below provide time step snapshots of traffic simulation run in a fully loaded cycle showing how the optimized traffic operations result in clearing the queue:



213-261-4040

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Important factors to be considered regarding queue lengths include the following:

- 50th percentile maximum queue is maximum back of queue on a 'typical' cycle.
- 95th percentile is the maximum back of queue with 95th percentile traffic.
- The queue length reported by Synchro/Simtraffic is for the lane with longest queue in the lane group. The total queue length is divided by the number of lanes and the lane utilization factor (which we did not adjust).
- In many cases, 95th percentile queue will not be experienced due to upstream metering. That is the case with 3 signals along National Boulevard. If the upstream intersection is at or near capacity, the 50th percentile queue represents the maximum queue experienced. Similarly, if the upstream intersection has a v:c ratio over 0.8, the maximum queue is approximately equal to the 50th percentile queue divided by upstream v:c ratio. For example, if the 50th percentile queue would be 200/0.9 = 222 feet.

Based on the discussion above, below is the 50th percentile queue length (in feet) for all movements that would be typical based on the assumed timing parameters. Highlighted cells are relevant to the analysis:

Intersection		50 th Percentile Queue Length (Storage in Ft shown in parenthesis)													
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR			
National Blvd and Venice Blvd	102* (250)	392	21 (150)	78 (~135)	317	-	42	395	15	119	246	0			
Main Driveway and National Blvd	1 (85)	21	-	-	52	1	77	-	0	-	0	-			
Washington Blvd and National Blvd	102 (200)	328	18 (100)	111** (170)	242	-	98	-	92	100	294	-			

 Table 1. 50th Percentile Queue Length (Ft)

*NBL at National Boulevard and Venice Boulevard is 102 feet (for dual NB left turn lanes) which is less than the storage length of 250 feet

**SBL at Washington Boulevard and National Boulevard is 111 feet which is less than the storage length of 170 feet

Based on linear interpolation, the <u>relevant 85th percentile</u> queues (in feet) will be as shown in **Table 2** on the following page, which still indicates that the provided storage is sufficient to serve the expected queues:

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Intersection		Interpolated 85 th Percentile Queue Length (Ft)											
	NBL	NBT	NBR	SBL	SBT	SBR							
National Blvd and Venice Blvd	144 (250)	445	65 (150)	122 (~135)	397	-							
Main Driveway and National Blvd	35 (85)	46	-	-	106	21							
Washington Blvd and National Blvd	132 (200)	392	57 (100)	142 (170)	460	-							

 Table 2. 85th Percentile Queue Length (Ft)

The queues in northbound through and southbound are not of concern since we are coordinating signals along N-S direction and even in the worst case scenario of the queues filling up the 500 feet distance between Washington/National and Venice/National, they are going to get green indication at the same time due to the coordination offset and as a result clear out completely, as demonstrated to the City in our simulation.

Analysis and Results

The traffic model was calibrated to existing conditions and then loaded with the 2017 With Project traffic volumes. All proposed mitigations were coded into the model along with current signal phasing as well as any proposed changes (e.g. NB left turn at Venice/National coded as protected phasing for dual left turns and permissive phasing for SB left at main driveway). A total of 10 cycles (600 seconds) were simulated by using random seeding to allow network to load for 180 seconds prior to beginning of the simulation. As shown in the traffic simulation, although the reported queue lengths in some cases (e.g. NB and SB through movements) are longer than the storage lengths, the nature of the queue is dynamic in nature and with adjustments to signal timing, the analysis suggests that traffic flow can be managed along National Boulevard to provide progression and avoid long queuing.

It is recommended that during implementation, optimized timing plans be developed by Kimley-Horn for both National Boulevard, Washington Boulevard and Venice Boulevard with the prevailing traffic conditions at that time to serve the traffic in the most optimal manner achievable. This will require coordination with LADOT, City of Culver City and possibly Caltrans.

Finally, it was agreed that the curb-to-curb roadway width of National Boulevard along the project frontage will be 78'. The extra 2' of roadway width will leave a 6' parkway. Therefore, a 2' portion of the building setback will be used to provide an 8' parkway along the project's frontage. The striping plan has been updated (attached to this supplemental analysis) accordingly to show the following:

- 78' curb-to-curb width with dual left-turn lanes, two through lanes, a right-turn lane and bicycle lanes at the northbound approach to Venice Boulevard and also at the southbound approach to Washington Boulevard.
- A right-turn lane for southbound right turning vehicles entering the signalized driveway between Venice Boulevard and Washington Boulevard.
- A bike box on the south leg of National Boulevard for bicyclists riding from southbound National Boulevard to eastbound Washington Boulevard.

Page 4





APPENDIX E

HIGHWAY CAPACITY SOFTWARE (HCS) WORKSHEETS

Phone: Fax: E-mail: _____Operational Analysis_____ Analyst: DS Agency or Company: KHA Date Performed: 7/6/2015 Analysis Time Period: PM Freeway/Direction: 10 EB From/To: Jurisdiction: Analysis Year: 2015 Description: Mainline EB at Robertson Pl _____Flow Inputs and Adjustments_____ Volume, V 8033 veh/h Peak-hour factor, PHF 0.94 Peak 15-min volume, v15 2136 v Trucks and buses 5 8 Recreational vehicles 0 % Terrain type: Level % Grade -Segment length mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.976 Driver population factor, fp 1.00 2190 pc/h/ln Flow rate, vp _____Speed Inputs and Adjustments____ Lane width ft _ Right-side lateral clearance ft Total ramp density, TRD _ ramps/mi Number of lanes, N 4 Free-flow speed: Measured 70.0 FFS or BFFS mi/h Lane width adjustment, fLW mi/h Lateral clearance adjustment, fLC mi/h TRD adjustment mi/h Free-flow speed, FFS 70.0 mi/h _____LOS and Performance Measures_____ Flow rate, vp 2190 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 58.6 mi/h Number of lanes, N 4 Density, D 37.4 pc/mi/ln Level of service, LOS E

Phone: Fax: E-mail: _____Operational Analysis______ Analyst: DS Agency or Company: KHA Date Performed: 7/6/2015 Analysis Time Period: AM Freeway/Direction: 10 EB From/To: Jurisdiction: Analysis Year: 2015 Description: Mainline EB at Robertson Pl _____Flow Inputs and Adjustments_____ 7084 Volume, V veh/h Peak-hour factor, PHF 0.94 Peak 15-min volume, v15 1884 v Trucks and buses 5 8 Recreational vehicles 0 % Terrain type: Level % Grade -Segment length mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.976 Driver population factor, fp 1.00 1931 pc/h/ln Flow rate, vp _____Speed Inputs and Adjustments____ Lane width ft _ Right-side lateral clearance ft Total ramp density, TRD _ ramps/mi Number of lanes, N 4 Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW mi/h Lateral clearance adjustment, fLC mi/h TRD adjustment mi/h Free-flow speed, FFS 70.0 mi/h _____LOS and Performance Measures_____ Flow rate, vp 1931 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 63.8 mi/h Number of lanes, N 4 Density, D 30.3 pc/mi/ln Level of service, LOS D

Phone: Fax: E-mail: _____Operational Analysis_____ Analyst: DS Agency or Company: KHA Date Performed: 7/6/2015 Analysis Time Period: AM Freeway/Direction: 10 WB From/To: Jurisdiction: Analysis Year: 2015 Description: Mainline WB at Robertson Pl _____Flow Inputs and Adjustments_____ 7942 Volume, V veh/h Peak-hour factor, PHF 0.94 Peak 15-min volume, v15 2112 v Trucks and buses 5 8 Recreational vehicles 0 % Terrain type: Level % Grade -Segment length mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.976 Driver population factor, fp 1.00 2165 pc/h/ln Flow rate, vp _____Speed Inputs and Adjustments____ Lane width ft _ Right-side lateral clearance ft Total ramp density, TRD _ ramps/mi Number of lanes, N 4 Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW mi/h Lateral clearance adjustment, fLC mi/h TRD adjustment mi/h Free-flow speed, FFS 70.0 mi/h _____LOS and Performance Measures_____ Flow rate, vp 2165 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 59.2 mi/h Number of lanes, N 4 Density, D 36.6 pc/mi/ln Level of service, LOS E

Phone: Fax: E-mail: _____Operational Analysis______ Analyst: DS Agency or Company: KHA Date Performed: 7/6/2015 Analysis Time Period: PM Freeway/Direction: 10 WB From/To: Jurisdiction: Analysis Year: 2015 Description: Mainline EB at Robertson Pl _____Flow Inputs and Adjustments_____ Volume, V 4690 veh/h Peak-hour factor, PHF 0.94 Peak 15-min volume, v15 1247 v Trucks and buses 5 8 Recreational vehicles 0 % Terrain type: Level % Grade _ Segment length mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.976 Driver population factor, fp 1.00 1279 pc/h/ln Flow rate, vp _____Speed Inputs and Adjustments____ Lane width ft _ Right-side lateral clearance ft Total ramp density, TRD _ ramps/mi Number of lanes, N 4 Free-flow speed: Measured FFS or BFFS 70.0 mi/h Lane width adjustment, fLW mi/h Lateral clearance adjustment, fLC mi/h TRD adjustment mi/h Free-flow speed, FFS 70.0 mi/h _____LOS and Performance Measures_____ Flow rate, vp 1279 pc/h/ln Free-flow speed, FFS 70.0 mi/h Average passenger-car speed, S 69.9 mi/h Number of lanes, N 4 Density, D 18.3 pc/mi/ln Level of service, LOS С

Phone: Fax: E-mail: Diverge Analysis Analyst: DS Agency/Co.: KHA Date performed: 7/6/2015 Analysis time period: AM Freeway/Dir of Travel: 10 WB Junction: Jurisdiction: Analysis Year: 2015 Description: 10 WB Offramp at Robertson Pl _____Freeway Data______ Type of analysis Diverge Number of lanes in freeway 4 mph Free-flow speed on freeway 65.0 Volume on freeway 7942 vph _____Off Ramp Data_____ Side of freeway Right Number of lanes in ramp 1 Free-Flow speed on ramp 35.0 mph Volume on ramp 244vph Length of first accel/decel lane 1275 ft Length of second accel/decel lane ft _____Adjacent Ramp Data (if one exists)_____ Does adjacent ramp exist? No Volume on adjacent ramp vph Position of adjacent ramp Type of adjacent ramp Distance to adjacent ramp ft _____Conversion to pc/h Under Base Conditions______ Junction Components Freeway Ramp Adjacent Ramp Volume, V (vph) 7942 244 vph Peak-hour factor, PHF 0.94 0.94 Peak 15-min volume, v15 2112 65 v Trucks and buses 0 0 % Recreational vehicles 0 0 8 Level Level 0.00 % 0.00 % 0.00 mi 0.00 mi Terrain type: Grade % Length mi Trucks and buses PCE, ET 1.5 1.5 Recreational vehicle PCE, ER 1.2 1.2

Heavy vehicle adjust Driver population fa Flow rate, vp		1.000 1.00 8449	1.000 1.00 260		pcph
	Estimation	of V12 Diverge	e Areas_		
	= (E Q	quation 13-12	or 13-1	3)	
Р		ing Equation	8		
	= v + (v - v) 2 R F R		pc/h		
	Capac	ity Checks			
v = v Fi F	Actual 8449	Maximum 9400		LOS F? No	
v = v - v	8189	9400		No	
FO F R V	260	2000		No	
R v or v	2309 pc/h	(Equation	n 13-14	or 13-17)	
3 av34 Is v or v > 3 av34	2700 pc/h?	No			
Is v or v >	1.5 v /2	No			
3 av34 If yes, v = 3830 12A	12	(Equation 1)	3-15, 13	-16, 13-18,	or 13-19)
	Flow Entering				
v 12		Max Desirable 4400		Violation? No	
	el of Service De	termination (if not F)	
Density,	D = 4.252 + 0 R	.0086 v - 0.	009 L D	= 25.7	pc/mi/ln
Level of service for	= =		_	ence C	
	Speed E	stimation			
Intermediate speed v	ariable,	D = S	0.451		
Space mean speed in	ramp influence a		54.6	mph	
Space mean speed in	outer lanes,		66.2	mph	
Space mean speed for	all vehicles,	•	60.4	mph	

Phone: Fax: E-mail: Diverge Analysis DS Analyst: Agency/Co.: KHA Date performed: 7/6/2015 Analysis time period: PM Freeway/Dir of Travel: 10 WB Junction: Jurisdiction: Analysis Year: 2015 Description: 10 WB Offramp at Robertson Pl _____Freeway Data______ Type of analysis Diverge Number of lanes in freeway 4 mph Free-flow speed on freeway 65.0 Volume on freeway 4690 vph _____Off Ramp Data_____ Side of freeway Right Number of lanes in ramp 1 Free-Flow speed on ramp 35.0 mph Volume on ramp 800 vph Length of first accel/decel lane 1275 ft Length of second accel/decel lane ft _____Adjacent Ramp Data (if one exists)_____ Does adjacent ramp exist? No Volume on adjacent ramp vph Position of adjacent ramp Type of adjacent ramp Distance to adjacent ramp ft _____Conversion to pc/h Under Base Conditions______ Junction Components Freeway Ramp Adjacent Ramp Volume, V (vph) 4690 800 vph Peak-hour factor, PHF 0.94 0.94 Peak 15-min volume, v15 1247 213 v Trucks and buses 0 0 % Recreational vehicles 0 0 8 Terrain type: Level Level 8 0.00 0.00 % 0.00 % 0.00 mi 0.00 mi Grade % Length mi Trucks and buses PCE, ET 1.5 1.5 Recreational vehicle PCE, ER 1.2 1.2

Heavy vehicle adjustm Driver population fac Flow rate, vp		1.000 1.00 4989	1.000 1.00 851		pcph
	Estimation @	of V12 Diverge	Areas		
L EQ		quation 13-12	or 13-13	3)	
P FD	= 0.436 Us:	ing Equation	8		
v 12	= v + (v - v) R F R		pc/h		
	Capac	ity Checks			
v = v Fi F	Actual 4989	Maximum 9400		LOS F? No	
v = v - v	4138	9400	1	No	
FO F R V	851	2000	1	No	
R v or v	1167 pc/h	(Equation	13-14 d	or 13-17)	
3 av34 Is v or v > 2 3 av34	700 pc/h?	No			
Is v or v > 1	.5 v /2	No			
If yes, v = 2655 12A	12	(Equation 13	5-15, 13-	-16, 13-18,	or 13-19)
	_Flow Entering 1	Diverge Influe	ence Area	a	
v		Max Desirable 4400		Violation? No	
12 Leve	l of Service De	termination (i	f not F)	
Density,	D = 4.252 + 0	.0086 v - 0.0 12	09 L D	= 15.6	pc/mi/ln
Level of service for	= =		_	ence B	
	Speed E:	stimation			
Intermediate speed va	riable,	D = S	0.505		
Space mean speed in r	amp influence a:		53.4	mph	
Space mean speed in o	uter lanes,		70.7	mph	
Space mean speed for	all vehicles,	•	60.3	mph	





APPENDIX F

ON-STREET PARKING AND STRIPING PLAN



<u>LEGEND:</u>

	EXISTING PARKING
	PARKING REQUIRING REMOVAL
[]	PROPOSED NEW PARKING
	EXISTING RED CURB
	PROPOSED RED CURB
	EXISTING TRAFFIC STRIPING
	PROPOSED TRAFFIC STRIPING
	EXISTING DRIVEWAY
	PROPOSED DRIVEWAY
	EXISTING BUS STOP





Kimley»**Horn**





APPENDIX G

CITY OF LOS ANGELES PEDESTRIAN AND BICYCLE PLAN



Prepared by City of Los Angeles Planning Department • Graphics Section • March 2011



Kimley **»Horn**

APPENDIX H

SUPPLEMENTAL TRAFFIC ANALYSIS
TECHNICAL MEMORANDUM

To: Barry Kurtz P.E., T.E. (City of Culver City)
From: Sri Chakravarthy, P.E., T.E. (Kimley-Horn) David Shaw (Kimley-Horn)
Date: January 21, 2016
Subject: Ivy Station TOD Supplemental Traffic Analysis

This technical memorandum (memo) documents the supplemental traffic impact analysis and intersection Level of Service (LOS) results for three additional study intersections: Washington Boulevard/Wesley Avenue, Washington Boulevard/Cattaraugus Avenue, and Washington Boulevard/La Cienega Boulevard. Additional information for the study intersections is shown below in **Table 1**.

Intersection #	Northbound/ Southbound	Eastbound/ Westbound	Signalized	Signal System	Jurisdiction
1	Wesley Avenue	Washington Boulevard	No*	_*	Culver City
2	Cattaraugus Avenue	Washington Boulevard	No*	_*	Culver City
3	La Cienega Boulevard	Washington Boulevard	Yes	ATSAC	Culver City

Table 1 - Study Intersections

*Signalized intersections with ATSAC signal system for Future (2019) scenarios

Study Methodology

A traffic impact analysis was conducted to analyze the traffic conditions at the study intersections under the following four scenarios:

- Existing (2015) Conditions
- Existing With Project Conditions
- Future (2019) Conditions
- Future With Project Conditions

Weekday traffic counts from previous years were provided by the City. In consultation with City staff, a 1% per year growth factor was applied to the traffic counts to obtain existing (2015) traffic counts. Traffic count worksheets are provided in **Appendix A** of this memo.

CMA methodology was used to determine the volume to capacity (V/C) ratio and the Level of Service (LOS) associated with each V/C ratio at the study intersections. CMA calculation (CMAC) spreadsheets were utilized in this analysis to determine the LOS at the study intersections and are included in

Appendix B. The City of Culver City significant impact criteria was used to determine significant project impacts.

Existing (2015) Conditions

Existing traffic conditions were analyzed using existing (2015) peak hour traffic counts. **Table 2** presents the Existing (2015) conditions peak hour V/C ratio and the corresponding LOS for each intersection.

	Table 2 - Existing (2013) Condition	ms micr see		0					
		LOS Analysis Results							
	Study Intersections	A.M. Peak	Hour	P.M. Peak Hour					
		V/C Ratio	LOS	V/C Ratio	LOS				
1	Wesley Avenue at Washington Boulevard	0.682	В	0.531	А				
2	Cattaraugus Avenue at Washington Boulevard	0.803	D	0.588	А				
3	La Cienega Boulevard at Washington Boulevard	0.870	D	0.882	D				

Table 2 - Existing (2015) Conditions Intersection LOS

Table 2 indicates that for Existing (2015) conditions, 2 intersections are projected to operate at LOS D during the AM peak period while 1 intersection would operate at LOS B. During the PM peak period, 1 intersection would operate at LOS D while the remaining 2 intersections would operate at LOS A.

Existing With Project Conditions

Existing With Project traffic volumes represent the sum of the existing (2015) traffic volumes plus the project trips. **Table 3** presents the Existing With Project conditions peak hour V/C ratio and the corresponding LOS for each intersection.

	Table 3 - Ex	0		g (2015)		Exis	sting W	Existing With Project				
		LOS	S Analy	sis Resu	ılts	LOS		sis Resu	lts	Change		
	Study Intersections		Peak	P.M. Peak		A.M. F	Peak	P.M. Peak		Change		
			ur	Hour		Но	ur	Но	ur			
			LOS	V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	АМ	PM	
1	Wesley Avenue at Washington Boulevard	0.682	В	0.531	А	0.693	В	0.542	А	0.011	0.011	
2	Cattaraugus Avenue at Washington Boulevard	0.803	D	0.588	А	0.814	D	0.599	А	0.011	0.011	
3	La Cienega Boulevard at Washington Boulevard	0.870	D	0.882	D	0.879	D	0.891	D	0.009	0.009	

Table 3 - Existing With Project Conditions Intersection LOS

Table 3 indicates that for Existing With Project conditions, 2 intersections are projected to operate at LOS D during the AM peak period while 1 intersection would operate at LOS B. During the PM peak period, 1 intersection would operate at LOS D while the remaining 2 intersections would operate at LOS A. Based on significant impact criteria defined by City of Culver City, the proposed project would not have a significant impact at the study intersections.

Future (2019) Conditions

Future (2019) base conditions represent the sum of existing (2015) volumes raised by ambient growth factor, and the traffic estimated from related projects. As per the information provided by City staff regarding programmed improvements, the intersections of Wesley Avenue/Washington Boulevard and Cattaraugus Avenue/Washington Boulevard are assumed to be signalized intersections with ATSAC signal system. **Table 4** presents the Future (2019) conditions peak hour V/C ratio and the corresponding LOS for each intersection.

		LOS Analysis Results							
	Study Intersections	A.M. Peak	Hour						
		V/C Ratio	LOS	V/C Ratio	LOS				
1	Wesley Avenue at Washington Boulevard	0.670	В	0.593	А				
2	Cattaraugus Avenue at Washington Boulevard	0.681	В	0.488	А				
3	La Cienega Boulevard at Washington Boulevard	0.926	E	0.943	Е				

Table 4 - Future (2019) Conditions Intersection LOS

Table 4 indicates that for Future (2019) conditions, the intersection of La CienegaBoulevard/Washington Boulevard is projected to operate at LOS E while the remaining 2 intersectionswould operate at LOS B or better during AM and PM peak periods.

Future With Project Conditions

Future With Project traffic volumes represent the sum of existing (2015) traffic volumes raised by ambient growth factor, the traffic estimated from related projects, and the project trips. **Table 5** represents the Future With Project conditions peak hour V/C ratio and the corresponding LOS for each intersection.

		LOS		e (2019) rsis Resເ	ılts		ture Wi Analy	Change			
	Study Intersections	A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour			
			LOS	V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	АМ	РМ
1	Wesley Avenue at Washington Boulevard	0.670	В	0.593	А	0.680	В	0.602	В	0.010	0.009
2	Cattaraugus Avenue at Washington Boulevard	0.681	В	0.488	А	0.691	В	0.498	А	0.010	0.010
3	La Cienega Boulevard at Washington Boulevard	0.926	E	0.943	E	0.935	E	0.952	E	0.009	0.009

Table 5 - Future With Project Conditions Intersection LOS

Table 5 indicates that for Future With Project conditions, the intersection of La Cienega Boulevard/Washington Boulevard is projected to operate at LOS E while the remaining 2 intersections would operate at LOS B or better during AM and PM peak periods. Based on significant impact criteria defined by City of Culver City, the proposed project would not have a significant impact at the study intersections.

APPENDIX A

TRAFFIC COUNT WORKSHEETS

PROJECT:		COLOSHING TONICHALLONAL-CALL	\$
DATE:		THURSDAY, APRIL 29, 2010	
PERIOD:		07:00 AM TO 10:00 AM	
INTERSECTION	N/S	WESLEY AVENUE / DRIVEWAY	
	E/W	WASHINGTON BOULEVARD	
FILE NUMBER:		21-AM	

STATES AND

CONCINCTION OF THE OWNER.

Contraction of the

15 MINUTE б WBTH TOTALS SBRT SBTH SBLT WBRT WBLT NBRT NBTH EBLT NBLT EBRT EBTH 0700-0715 0715-0730 0730-0745 Ö 0745-0800 0800-0815 0815-0830 0830-0845 0845-0900 Ð 0900-0915 0915-0930 Ø 0930-0945 Ð 0945-1000

ſ	1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12]
L	TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
	0700-0800	0	0	0	0	1484	6	0	0	0	6	579	٥	2075
	0715-0815	0	0	0	0	1579	6	0	0	0	4	718	0	2307
210	0730-0830	0	0	0	0	1587	3	1	0	0	2	840	0	2433
	0745-0845	0	0	0	0	1555	3	1	0	0	4	913	0	2476
	0800-0900	0	0	0	0	1489	5	2	0	1	4	934	0	2435
	0815-0915	0	0	0	0	1467	6	3	0	2	6	849	0	2333
	0830-0930	0	0	0	0	1396	6	3	0	4	9	741	0	2159
	0845-0945	0	0	0	0	1364	8	4	0	4	10	641	0	2031
	0900-1000	0	0	0	0	1338	5	3	0	4	14	563	0	1927

A.M. PEAK HOUR 0745-0845

WASHINGTON BOULEVARD

WESLEY AVENUE / DRIVEWAY

THE TRAFFIC SOLUTION 329 DIAMOND STREET ARCADIA, CALIFORNIA 91006 626.446.7978

*Counts provided by the City of Culver City.

PROJECT: DATE: PERIOD: INTERSECTION	,≉ N/S F∕W	WASHINGTON BOULEVARD
FILE NUMBER:		21-PM

15 MINUTE З TOTALS SBRT SBTH SBLT WBRT WBTH WBLT NBRT NBTH NBLT EBRT EBTH EBLT 0300-0315 З 0315-0330 0330-0345 0345-0400 Ø 0400-0415 0415-0430 0430-0445 Ũ 2, 0445-0500 0500-0515 0515-0530 0530-0545 Ø 0545-0600 Ð

	1 HOUR	1	2	- 3	4	5	6	7	8	9	10	11	12	T
l	TOTALS	\$BRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	ЕВТН	EBLT	TOTALO
	0300-0400	0	0	Ô	0	762	6	15	Construction as and	- All Alexandra De De companya	Antilifornia of the order of the order	CONTRACTOR OF THE OWNER OF THE OWNER		TOTALS
	0315-0415	õ	õ	õ					0	15	3	895	0	1696
		-	0	0	0	739	2	15	0	15	3	934	0	1708
	0330-0430	0	0	0	0	772	1	16	0	19	4	961	0	1773
	0345-0445	0	0	0	0	809	1	13	0	17	6	975	0	1821
	0400-0500	0	0	0	0	870	3	12	ō	15	7	1006	0	1913
	0415-0515	0	0	0	0	911	3	12	õ		4		-	
	0430-0530	0	0	0	-		-		U	14	5	1050	0	1995
		•	U	0	0	927	2	11	0	11	4	1112	0	2067
5	0445-0545	0	0	0	0	950	3	9	0	8	2	1136	n	2108
	0500-0600	0	0	0	0	930	1	7	0	5	1	1187	ñ	2131



WESLEY STREET / DRIVEWAY

THE TRAFFIC SOLUTION 329 DIAMOND STREET ARCADIA, CALIFORNIA 91006 626.446.7978

*Counts provided by the City of Culver City.



Critical Movement Analysis (CMA) Worksheet

Project Name	8770 W	/ashingto	on Mixed-Use				
Intersection Number	21			Date	July 26, 2010		
Intersection Name	rsection Name North/Sou East/Wes		Wesley Street Washington Boulevard	kon" tura fu k⊴r	Suly 20, 2010		
Intersection Control	Signaliz	ed					
Analysis Period	AM Pea	k Hour					
Analysis Scenario	Future	(2013)	With Project Plus Mitigation				

Approach Direction	Lane Type		No. of Lanes	Approach Volumes	Right-Turn on Red	Assigned Lane Volumes	Critical Moves
	Left		1	50	Probable and William Big Cales in Program and Probable 2015	50	50
	Left/Through		0	1 1 1 1			50
Northbound	Through		0	0			
	Through/Right		0				
	Right		1	6	6	0	
And last ware open might last state give more with risks and may type and with table	Total Lanes		2				
	Left	in het de stel i de skie ken ken	0		nan ang dar man tak tak mungtak kilo par ing kilo tak tak tak tak nan ang darawa)	n é nar manifest tils tils tils side ein om tils mer eve tils ave file ov	a fal man wat have have not been state and the last two and the
O	Left/Through		0	Эс. — 31			
Southbound	Through		0	0			
	Through/Right		0	10.10 ¹			
	Right		0	0	0		
	Total Lanes		0				
Manufactor and a second last grad constant specific products to the second		-	Ş	Sum of North/S	South Critical	Volumes	50
	Left		0	. 0	n an		NACESCON CONTRACTOR OF CONT
_	Left/Through		0	e.			
Eastbound	Through		1	1,296		660	
	Through/Right		1			660	
	Right		0	23	0		
yes have note this any lost (2) just may imply the full set form and yes are him your	Total Lanes	Fishiry School	2				
	Left	** *** *** *** ** ** ** *** *** ***	1	23	nad had feel feel good man yook gan and feel good good good good good and and and and and and and and and an	23	d shid Mu ania ayon maa kon awa any kisa wax may ay
184 .v	Left/Through		0				
Westbound	Through		2	1,726		863	863
	Through/Right		0				000
	Right		0	0	0		
	Total Lanes		3				
				Sum of East/V	Vest Critical V	/olumes	863
Alexandra a man	_			Total Intersec	tion Critical V	′olumes ⁼	913
Number of Clea	arance Intervals	2			Intersection C	apacity	1,500

Signal Coordination ATSAC

Final CMA 0.539

0.609

-0.070

Level of Service (LOS) A

Signal Coordination Adjustment

Base CMA

Critical Movement Analysis (CMA) Worksheet

G _{project} Name	8770 Washingto	on Mixed-Use		vi and≊i i	°, ⊂ før
ntersection Number	21		Date	July 26, 201	0
_{ptersection} Name	North/South: East/West:	Wesley Street Washington Boulevard		- ,	
ntersection Control	Signalized				
Analysis Period	PM Peak Hour				
Analysis Scenario	Future (2013)	With Project Plus Mitigation			

A	gned ne Critical mes Moves
Left 1 78 7	8 78
Left/Through 0	
Northbound Through 0 0	
Through/Right 0	
Right <u>1</u> 22 22 C)
Total Lanes 2	
Left 0 0	nen men han han han han han han ana men men dar dar han han han gen dar dar han an
Left/Through 0	
Southbound Through 0 0	
Through/Right 0	
Right <u>0</u> 00	
Total Lanes 0	
Sum of North/South Critical Volu	mes 78
Left 0 0	n na
Left/Through 0	
Eastbound Through 1 1,393 71	2 712
Through/Right 1 712	
Right 0 32 0	
Total Lanes 2	
Left 1 43 43	43
Left/Through 0	
Westbound Through 2 1,238 619	9
Through/Right 0	
Right 0 0 0	
Total Lanes 3	
Sum of East/West Critical Volum	nes 755
Total Intersection Critical Volum	nes 833
Number of Clearance Intervals 2 Intersection Capac	city 1,500
Base C	MA 0.555
Signal Coordination ATSAC Signal Coordination Adjustm	ent -0.070
Final C	MA 0.485
Level of Service (LC	DS) A

PROJECT:		WASHINGTON / NATIONAL EMC
DATE:		THURSDAY, APRIL 29, 2010
PERIOD;		03:00 PM TO 06:00 PM
INTERSECTION	N/S	WESLEY STREET / DRIVEWAY
	E/W	WASHINGTON BOULEVARD
FILE NUMBER:		21-PM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0300-0315	0	0	0	0	222	4	4	0	3	2	212	0
0315-0330	0	0	0	0	195	2	3	0	2	0	238	•
0330-0345	0	0	0	0	170	0	5	0	5	0	236 241	0
0345-0400	0	0	0	0	175	õ	š	0	5	4	204	0
0400-0415	0	0	0	0	199	0	4	0	3	2	251	0
0415-0430	0	0	0	0	228	1	4	ñ	6	ے ۱	265	0
0430-0445	0	0	0	0	207	0	2	ñ	3	2	265	0
0445-0500	0	0	0	0	236	2	2	ñ	3	2	235	0
0500-0515	0	0	0	0	240	0	4	õ	2	0	235	0
0515-0530	0	0	0	0	244	0	3	õ	3	0	295	0
0530-0545	0	0	0	0	230	1	õ	0	ň	0	279	0
0545-0600	0	0	0	0	216	0	õ	0	0	1	279	0

1 HOUF	Charles and the second	2	3	4	5	6	7	8	9	10	11	12	1
TOTALS	S SBR	Г SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0300-040	0 0	0	0	0	762	6	15	0	15	3	895	0	1696
0315-041	5 0	0	0	0	739	2	15	õ	16 15	3	934	0	1708
0330-043	0 0	0	0	0	772	1	16	0	19	4	961	0	1708
0345-044	• •	0	0	0	809	1	13	0	17	6	975	õ	1821
0400-050	- •	0	0	0	870	3	12	0	15	7	1006	õ	1913
0415-051	- •	0	0	0	911	3	12	0	14	5	1050	0	1995
0430-053		0	0	0	927	2	11	0	11	4	1112	0	2067
0445-054	North Construction of Construc	0	0	0	950	3	9	0	8	2	1136	0	2108
0500-060	0 0	0	0	0	930	1	7	0	5	1	1187	0	2131



THE TRAFFIC SOLUTION 329 DIAMOND STREET ARCADIA, CALIFORNIA 91006 626.446.7978 WESLEY STREET / DRIVEWAY

*Counts provided by the City of Culver City.

ENI AND ANALY IN CONSULTANDS BUY
SHINGTON / FAIRFAX - LOS ANGELES
JRSDAY, SEPTEMBER 11, 2014
00 AM TO 10:00 AM
CIENEGA BOULEVARD
SHINGTON BOULEVARD
M

-2-

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0700-0715	1	165	17	64	2 35	11	2	385	23	10	67	6
0715-0730	2	228	23	74	310	11	3	357	36	16	104	8
0730-0745	3	238	22	81	320	13	4	344	65	18	104	9
0745-0800	6	233	35	78	291	13	6	341	105	22	154	10
0800-0815	8	241	27	67	294	23	6	435	80	35	131	18
0815-0830	9	275	26	86	288	22	5	381	74	20	164	15
0830-0845	9	316	24	62	264	13	7	390	76	42	184	14
0845-0900	7	245	26	89	283	19	10	300	53	37	188	15
0900-0915	14	263	20	70	281	15	5	288	59	35	121	14
0915-0930	9	280	21	66	327	21	7	374	69	52	165	15
0930-0945	16	279	29	78	293	24	10	330	50	27	145	23
0945-1000	11	255	30	83	299	17	5	277	30	27	108	18

	1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	1
	TOTALS	SBRŢ	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
	0700-0800	12	864	97	297	1156	48	15	1427	229	66	429	33	4673
	0715-0815	19	940	107	300	1215	60	19	1477	286	91	493	45	5052
Manhat	0730-0830	26	987	110	312	1193	71	21	1501	324	95	553	52	5245
	0745-0845	32	1065	112	293	1137	71	24	1547	335	119	633	57	5425
	0800-0900	33	1077	103	304	1129	77	28	1506	283	134	667	62	5403
	0815-0915	39	1099	96	307	11 1 6	69	27	1359	262	134	657	58	5223
	0830-0930	39	1104	91	287	1155	68	29	1352	257	166	658	58	5264
	0845-0945	46	1067	96	303	1184	79	32	1292	231	151	619	67	5167
	0900-1000	50	1077	100	297	1200	77	27	1269	208	141	539	70	5055

A.M. PEAK HOUR 0745-0845

WASHINGTON BOULEVARD



DATA PROVIDED BY:

THE TRAFFIC SOLUTION 329 DIAMOND STREET ARCADIA, CALIFORNIA 91005 PH: 626-446-7978 FAX: 626-446-2877

LA CIENEGA BOULEVARD

.

CLIENT:		CHARTLAND TRAFFICE TOUT ON SUITANIS, INC.
PROJECT:		WASHINGTON / FAIRFAX - LOS ANGELES
DATE:		THURSDAY, SEPTEMBER 11, 2014
PERIOD:		03:00 PM TO 06:00 PM
INTERSECTION	N/S	LA CIENEGA BOULEVARD
	Ε/W	WASHINGTON BOULEVARD
FILE NUMBER:		7-PM

FILE NUMBER:

The Designation of the

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0300-0315	6	320	24	36	162	6	6	195	30	30	154	17
0315-0330	10	360	39	28	158	14	7	244	36	44	203	23
0330-0345	12	277	57	26	120	17	5	218	30	32	261	23
0345-0400	15	349	60	33	133	23	9	235	26	36	240	24
0400-0415	10	346	51	31	147	17	11	220	27	22	303	20
0415-0430	13	405	69	22	128	12	14	237	30	43	312	20
0430-0445	17	361	54	29	153	13	14	240	29	22	253	26
0445-0500	10	407	76	20	155	19	19	224	27	28	321	20
0500-0515	5	355	71	32	176	18	18	229	25	35	328	18
0515-0530	8	388	67	38	143	16	23	232	34	56	315	19
0530-0545	9	351	65	28	160	19	17	238	29	38	326	20
0545-0600	9	377	50	21	155	19	14	238	29	30	323	23

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRŢ	EBTH	EBLT	TOTALS
0300-0400	43	1306	180	123	573	60	27	892	122	142	858	87	4413
0315-0415	47	1332	207	118	558	71	32	9 1 7	119	134	1007	90	4632
0330-0430	50	1377	237	112	528	69	39	910	113	133	1116	87	4771
0345-0445	55	1461	234	115	561	65	48	932	112	123	1108	90	4904
0400-0500	. 50	1519	250	102	583	61	58	921	113	115	1189	86	5047
0415-0515	45	1528	270	103	612	62	65	930	111	128	1214	84	5152
0430-0530	40	1511	268	119	627	66	74	925	115	141	1217	83	5186
0445-0545	32	1501	279	118	634	72	77	923	115	157	1290	77	5275
0500-0600	31	1471	253	119	634	72	72	937	117	159	1292	80	5237

P.M. PEAK HOUR 0445-0545

WASHINGTON BOULEVARD



DATA PROVIDED BY:

 THE TRAFFIC SOLUTION

 329 DIAMOND STREET

 ARCADIA, CALIFORNIA 91005

 PH:
 626-446-7978

 FAX:
 626-446-2877

LA CIENEGA BOULEVARD

CLIENT: PROJECT: DATE: 1.1 PERIOD: INTERSECTION

N/S

E/W

HINGREEN TRAN WASHINGTON / NATIONAL EMC TUESDAY, MAY 04, 2010 07:00 AM TO 10:00 AM CATTARAUGUS AVENUE WASHINGTON BOULEVARD 23-AM

FILE NUMBER:

15 MINUTE	1	2	NAMES AND ADDRESS OF TAXABLE									
TOTALS	SBRT	Construction of the owner own	3	4	5	6	7	1	Time			
	ISBRI	SBTH	SBLT	WBRT	WBTH	A DESCRIPTION OF THE OWNER OWNER OF THE OWNER OWNER OF THE OWNER OWNE		8	9	10	11	1
0700-0715	5	0	7	and the second second second second	and the second second second second second	WBLT	NBRT	NBTH	NBLT	EBRT	Contraction of the owner owner owner owner own	12
0715-0730	6	2	10	35	254	0	1	0	A REAL PROPERTY AND A REAL PROPERTY AND		EBTH	EBL.
0730-0745	7	4	10	65	369	3	1	-	1	1	82	4
0745-0800	10	1	15	95	407	1	0	0	1	0	122	5
0800-0815	-	1	16	78	389		0	1	2	1	174	3
0815-0830	17	1	25	69	341	1	1	2	3	1	190	3
	11	3	29	75		1	1	1	2	2	-	4
0830-0845	7	1	15	73	366	0	1	1	2	2	212	6
0845-0900	6	1	7		367	0	1	1	2	2	228	9
0900-0915	5	1	7	55	322	1	2	0		0	227	9
0915-0930	8		3	35	345	2	2	U (4	0	182	7
0930-0945	10	0	7	30	300	1		1	4	4	150	3
0945-1000		0	8	21	341	1	2	0	4	3	150	-
000	12	0	5	21	302	1	2	0	2	0		2
and the second	State of the second				302	0	2	1	0	0	124	3
1 HOUR	1	~ 1							~	U	115	3

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2035

I THOUR		0	-	1						0	115	3		
TOTALS	SBRT	2	3	4	5	6	7					Ū		
0700-0800	and a many statement of the second	SBTH	SBLT	WBRT	WBTH	WBLT		8	9	10	11	12	٦	
	28	4	48	273	and appropriate the second		NBRT	NBTH	NBLT	EBRT	EBTH	And a party of the second s		
0715-0815	40	5	66		1419	5	3	3	7	0	Construction of the second	EBLT	TOTALS	
0730-0830	45	6	85	307	1506	6	3	4	, 8	3	568	16	2377	
0745-0845	45	6	NOTICE STATE AND ADDRESS OF CAMPUSING	317	1503	3	3	5	0	4	698	18	2665	81 136
0800-0900	41	6	85	295	1463	2	4	5	9	6	804	22	2808	
0815-0915	29	-	76	272	1396	2	5	5	9	5	857	28	2804	
0830-0930	26	6	54	238	1400	3	6	3	10	4	849	31		
0845-0945		3	32	193	1334	1	0	3	12	6	787	28	2695	
0900-1000	29	2	25	141	1308	-	1	2	14	7	709		2572	
0000-1000	35	1	23	107	1288	5	8	1	14	7	-	21	2352	
					1200	4	8	2	10	, 7	606	15	2161	
										1	539	11	2025	

A.M. PEAK HOUR 0730-0830

WASHINGTON BOULEVARD



THE TRAFFIC SOLUTION 329 DIAMOND STREET ARCADIA, CALIFORNIA 91006 626.446.7978

CATTARAUGUS AVENUE

CLIENT: PROJECT: DATE: PERIOD:		WASHINGTON / NATIONAL EMC TUESDAY, MAY 04, 2010 03:00 PM TO 06:00 PM CATTARAUGUS AVENUE
INTERSECTION	N/S E/W	CATTARAUGUS AVENUE WASHINGTON BOULEVARD 23-PM
- MUMBER:		201.00

FILE NUMBER:

1100				Contraction of the local division of the loc	AND INCOMENTS OF TAXABLE PARTY OF TAXABLE PARTY.	A CONTRACTOR OF	7	8	9	10			
and the second secon	1 1	2	3	4	5	6	(NBTH	NBLT	EBRT			
15 MINUTE		SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NDIU		0			
TOTALS	SBRT	SDILL	Contraction of the rest of the	0.5	189	0	0	0	1	2			
0300-0315	8	0	18	25		ů 0	1	2	0	2	·	•	
0300-0370	6	2	19	21	170		0	1	2	3	221	4	
0315-0330	5	0	19	17	173	3	0		1	2	229	5	
0330-0345		-	14	20	181	2	1	0	1	3	219	2	
0345-0400	8	0		16	175	3	2	0	0		250	4	
0400-0415	6	0	15		183	1	1	1	0	5		2	
0415-0430	11	1	19	20		2	3	1	1	3	248		
0430-0445	10	1	20	22	208		3	0	1	1	263	2	
	9	1	19	17	211	3	U	1	1	1	264	5	
0445-0500	-	0	15	21	220	2	0	1	0	2	304	4	
0500-0515	10		13	21	209	3	0	0	0	3	267	4	
0515-0530	12	0		19	219	2	3	1	2	-	288	6	
0530-0545	7	2	17		223	4	0	0	1	3	200		
0545-0600	7	0	12	13	223	-				Concernant State State State State State State			1
0040-0000			_				7	8	9	10	11	12	
and manifestion date the start player and a start to be			1 3	4	5	6				FBRT	EBTH	EBLT	TOTALS

1 11 1

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and the second second second second

	a manifesta da manafesta da manaf	1		3	4	5	6	/			EBRT	EBTH	EBLT	TOTALS
ſ	1 HOUR	1		SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	And the second	AND DESCRIPTION OF THE OWNER OWNER	21	1806
	TOTALS	SBRT	SBTH		A COLOR OF THE OWNER	740	5	2	3	4	9	867		1803
. i.	0300-0400	27	2	70	83	713		4	3	3	10	893	15	
		25	2	67	74	699	8		- 2	3	13	919	15	1848
	0315-0415		1	67	73	712	9	4	2	2	13	946	13	1921
	0330-0430	30	י ר	68	78	747	8	7	2	2	12	980	10	1988
	0345-0445	35	2	73	75	777	9	9	2	2	10	1025	13	2087
	0400-0500	36	3		80	822	8	7	3	3	70	1079	13	2159
	0415-0515	40	3	73		848	10	6	2	3	(15	2184
	0430-0530	41	2	67	81		10	6	2	4	7	1098	19	2211
	0445-0545	38	3	64	78	859	10	3	2	4	9	1123	19	
	0500-0600	36	2	57	74	871		ALTER STREET, ST	annan di kacamatan kanang dapat jula kata pala					
	0000-0000	NAMES OF TAXABLE PARTY.												

P.M. PEAK HOUR 0500-0600



WASHINGTON BOULEVARD



THE TRAFFIC SOLUTION 329 DIAMOND STREET ARCADIA, CALIFORNIA 91006 626.446.7978

APPENDIX B

CRITICAL MOVEMENT ANALYSIS (CMA) WORKSHEETS

213-261-4040

					-										1			
Intersection	<u>n No. 1</u>	2015,	EXISTI	NG	2015	PROJEC	TED CUMULA	FIVE BASE		_		, WITH PF	ROJECT		2015, WI	TH TRAFF	IC MITI	GATION
North/South Street	:	Critical F	Phases:	0	Ambient C	<u>Frowth</u>	Critical Pha	ises: 0		🛛 Adj	acent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	0
Wesley Ave		Ca	pacity:	1200	from:	2015	Capa	city: 1200)	Trip	AM	173	83	256			apacity:	1200
East/West Street:		Signal S	system:	1	to:	2015	Signal Syst	tem: 1		Gen 1	PM	127	174	301	Use Dist	21 Signal S	System:	1
Washington B	Blvd	v/c red	uction:	0%	at:	1.0%	v/c reduct	tion: <mark>0%</mark>		Trip	AM	0	0	0		v/c red	duction: (0%
Analysis Date: 0	01/21/2016	Opposed Pl	hasing:	0			Opposed Phas	sing: 0		Gen 2	PM	0	0	0		Opposed F	hasing:	0
AM Peak: 8	8.00 AM	Counts		Lane	+ Amb.	+ Area	= Total		ane		Project	= Total		Lane	2	Total		Lane
	5.007.00	Volume	Lanes	Volume	Growth	Projects	Volume La	anes Volu	ime		'olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
		0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
Lt-Th <u>N/E</u>	<u>B RTOR:</u>		0	0				0	0	0%			0	0			0	0
Q ↑ Thru Exis	sting: 75%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
τ.	ojected: 75%		0	0				0	0	0%			0	0			0	0
	igated: 75%	1	0	1	0		1	0	1	0%	0	1	0	1	0	1	0	1
Shared			1	1				1	1	0%	-		1	1			1	1
⊇ ^L eft		0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
Lt-Th <u>S/E</u>	<u>3 RTOR:</u>		0	0	Ŭ		Ŭ	0	0	0%		Ŭ	0	0		Ŭ	0	0
	sting: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
ਦ੍ਰ ← Th-Rt Pro	ojected: 50%	Ŭ	0	0	Ŭ		Ŭ	0	0	0%	•	U U	0	0	Ŭ	Ŭ	0	0
Right Miti	igated: 50%	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
^v ↔ Shared		U	1	0	0		0	1	0	0%	U	U	1	0	U	U	1	0
Left		0	1	0	0		0	1	0	0%	0	0	1	0	0	0	1	0
$\begin{array}{c} \text{Pun} \not \rightarrow \text{Lt-Th} & \underline{\text{E/E}} \\ \text{no} \not \rightarrow \text{Thru} & \underline{\text{Exis}} \\ \text{ts} \not \rightarrow \text{Th-Rt} & \underline{\text{Pro}} \end{array}$	<u>B RTOR:</u>	U	0	0	0		U	0	0	0%	U	U	0	0	U	U	0	0
$\overrightarrow{O} \rightarrow \text{Thru}$ Exist	sting: 50%	960	1	482	0		960	1 4	82	(15%)	13	973	1	489	0	973	1	489
$\frac{1}{10}$ $$ Th-Rt Pro	ojected: 50%	900	1	482	0		900	1 4	82	(15%)	13	915	1	489	U	913	1	489
Right Miti	igated: 50%	4	0	0	0		4	0	0	0%	0	4	0	0	0	4	0	0
Generation Shared		4	0	0	0		4	0	0	0%	0	4	0	0	0	4	0	0
_ C Left		0	1	3	•		0	1	3	0%	_	0	1	3	0	0	1	3
un training	B RTOR:	3	0	0	0		3	0	0	0%	0	3	0	0	0	3	0	0
O ← Thru Exi	sting: 50%	4004	1	817			1001	1 8	17	15%	00	4000	1	830		4000	1	830
$\frac{1}{5}$ $\stackrel{\text{Lag}}{\leftarrow}$ Th-Rt Pro	pjected: 50%	1634	1	817	0		1634		17	15%	26	1660	1	830	0	1660	1	830
	igated: 50%		0	0				0	0	0%			0	0			0	0
Shared	3	0	0	0	0		0	0	0	0%	0	0	0	0	0	0	0	0
	al Volumes:	North-S	South:	1			North-So	uth:	1			North-	South:	1		North-	South:	1
Ontio	ar volumes.		West:	817			East-W		17				-West:	830			-West:	830
			Total:	818					18				Total:	831			Total:	831
			i Utal.				10						TOLAI.				Tulai.	
Volume/capac				0.682				0.6						0.693				0.693
v/c less ATSA	-			0.682				0.6	82					0.693				0.693
Level of S	Service (LOS):			В				В						В				В
												<u>P R</u>	OJE	ЕСТ	IMPA	<u> </u>		
Filename: K:\LD	DT_LDEV\99038001 Washir	ngton & National Lowe	\Documents\Tr	affic\Analysis\CMA	Calc Forms\Addition	nal Intersections			Cl	hange in	v/c due	to project:		0.011	$\Delta v/c$ after	mitigation:	(0.011
Developed 2005-20	007 by Ken Aitchis	on								Signi	ificantly i	impacted?		NO	Fully	mitigated?		N/A
										,	-					-		

								1				-				
Intersection No. 1	2015,	EXISTI	NG	2015	PROJEC	TED CUMULATI	VE BASE			, WITH PF	ROJECT		2015, WI	TH TRAFFI	IC MITI	GATION
North/South Street:	Critical P	Phases:	0	Ambient C	<u>Growth</u>	Critical Phase	s: 0		jacent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	0
Wesley Ave	Ca	apacity:	1200	from:	2015	Capacit	y: 1200	Trip	AM	173	83	256		Ca	apacity:	1200
East/West Street:	Signal S	System:	1	to:	2015	Signal Syster	n: 1	Gen 1	PM	127	174	301	Use Dist	21 Signal S	System:	1
Washington Blvd	v/c red	luction:	0%	at:	1.0%	v/c reductio	n: 0%	Trip	AM	0	0	0		v/c red	duction:	0%
Analysis Date: 01/21/2016	Opposed Pl	hasing:	0			Opposed Phasin	g: O	Gen 2	PM	0	0	0		Opposed P	hasing:	0
PM Peak: 5:00 PM	Counts		Lane	+ Amb.	+ Area	= Total	Lane		Project	Total		Lane	Adjusted	Total		Lane
	Volume	Lanes	Volume	Growth	Projects	Volume Lan			/olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
בי Left	5	0	5	0		5	0 5		0	5	0	5	0	5	0	5
⊑ 1 Lt-Th <u>N/B RTOR:</u>	_	0	0			-	0 0	0%		-	0	0		_	0	0
p Lent Q ↓ Image: Description of the structure N/B RTOR: Q ↓ Thru Existing: 75% Image: Description of the structure Projected: 75% Image: Description of the structure Projected: 75% Image: Description of the structure Mitigated: 75%	0	0	0	0		0	0 0	0%	0	0	0	0	0	0	0	0
↓ Th-Rt Projected: 75%	-	0	0				0 0	0%			0	0			0	0
	7	0_	7	0		7	07	0%	0	7	0	7	0	7	0_	7
**Shared	· ·	1	12	`			1 12		•		1	12	•		1	12
o └Left	0	0	0	0		0	0 0	0%	0	0	0	0	0	0	0	0
∃ ↓→Lt-Th <u>S/B RTOR:</u>	v	0	0	U		0	0 0	0%	•	0	0	0	v	U	0	0
$\begin{array}{c} & \downarrow \\ & \downarrow \\$	0	0	0	0		0	0 0	0%	0	0	0	0	0	0	0	0
Image: SolutionImage: Sol	U	0	0	U		0	0 0	0%	U	0	0	0	U	U	0	0
Right Mitigated: 50%	0	0	0	0		0	0 0	0%	0	0	0	0	0	0	0	0
^𝔅 ↔Shared	0	1	0	U		0	1 0	0%	U	0	1	0	0	U	1	0
J Left	0	1	0	0		0	1 0	0%	_	0	1	0	_	•	1	0
$\begin{array}{c} \text{PD} \not \rightarrow \text{Lt-Th} \\ \text{OO} \rightarrow \text{Thru} \\ \text{ts} \text{Th-Rt} \end{array} \xrightarrow{E/B \text{ RTOR:}} \\ \begin{array}{c} \text{Existing: 50\%} \\ \text{Projected: 50\%} \end{array}$	0	0	0	0		0	0 0	0%	0	0	0	0	0	0	0	0
$\overrightarrow{O} \rightarrow \text{Thru}$ Existing: 50%	40.40	1	625			10.10	1 625	(15%)	00	4074	1	638		4074	1	638
$\frac{1}{2}$ \rightarrow Th-Rt Projected: 50%	1248	1	625	0		1248	1 625		26	1274	1	638	0	1274	1	638
Right Mitigated: 50%		0	0				0 0		_		0	0			0	0
→ Shared	1	ŏ	Ő	0		1	0 0		0	1	Ő	0 0	0	1	Ő	Ő
Cleft		1	1				1 1	0%			1	1			1	1
$rac{1}{2}$ $rac{1}{2}$ Lt-Th <u>W/B RTOR:</u>	1	0	0	0		1	0 0		0	1	0	0	0	1	0	0
O ← Thru Existing: 50%		1	489				1 489				1	498			1	498
$\frac{1}{5}$ $\stackrel{\text{Construct}}{\leftarrow}$ Th-Rt Projected: 50%	977	1	489	0		977	1 489		19	996	1	498	0	996	1	498
A Right Mitigated: 50%			-00				0 0				0				Ġ	-30
Shared	0	0	0 0	0		0	0 0		0	0	0	0	0	0	ő	0
			-				<u> </u>			N					0	-
Critical Volumes:	North-S		12			North-Sout				North-		12		North-		12
		West:	626			East-Wes					-West:	639			-West:	639
	7	Total:	638			Tota					Total:	651			Total:	651
Volume/capacity (v/c) ratio:			0.531				0.531					0.542				0.542
v/c less ATSAC adjustment:			0.531				0.531					0.542				0.542
Level of Service (LOS):			А				А					А				А
ц., , , , , , , , , , , , , , , , , , ,	L			1			, ,	1		P R	OJE		IMPA	АСТ		- •
Filename: K:\LDT_LDEV\99038001 Wash	nington & Notional Laws		offic\Apolycic\CAM		nal Interceptions		ſ	hange in	v/c due	to project:		0.011	$\Delta v/c$ after			0.011
Developed 2005-2007 by Ken Aitchi	-	NDOCUMENTS/11	amevanatysis\CMA	NGAIC FUIMSVAODITIO	mai milei sections i		C	•		mpacted?		NO		mitigated?		N/A
Developed 2005-2007 by Kell Alichi	5011							Sign	incanity i	mpacieu?		NU	Fully	muyateu?		\mathbf{N}/\mathbf{A}

					-										1			
	tion No. 2	2015,	, EXISTI	ING	2015	PROJEC	TED CUMUL	ATI VE	BASE			, WITH PF	ROJECT		2015, WI	TH TRAFF		GATION
North/South Stre	eet:	Critical F	Phases:	0	Ambient G	irowth	Critical P	hases:	0	Ad Ad	jacent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	0
Cattaraugus	s Ave	Ca	apacity:	1200	from:	2015	Ca	pacity:	1200	Trip	AM	173	83	256		С	apacity:	1200
East/West Stree	et:	Signal S	System:	1	to:	2015	Signal Sy	ystem:	1	Gen 1	PM	127	174	301	Use Dist	21 Signal	System:	1
Washingtor	ר Blvd	v/c red	luction:	0%	at:	1.0%	v/c redu	uction:	0%	Trip	AM	0	0	0		v/c re	duction:	0%
Analysis Date:	01/21/2016	Opposed P	hasing:	0			Opposed Ph	nasing:	0	Gen 2	PM	0	0	0		Opposed I	hasing:	0
AM Poak	8:00 AM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	= Total		Lane	3	Total		Lane
	0.00 AM	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume		Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
Left رَح		9	0	9	0		9	0	9	0%	0	9	0	9	0	9	0	9
与┥Lt-Th	<u>N/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
p Left h Lt-Th o ↑ Thru thru thru c Right	Existing: 75%	5	0	0	0		5	0	0	0%	0	5	0	0	0	5	0	0
£ ┝ Th-Rt	Projected: 75%		0	0				0	0	0%			0	0	Ŭ	, The second sec	0	0
	Mitigated: 75%	3	0	3	0		3	0	3	0%	0	3	0	3	0	3	0	3
∠ ↔ Shared			1	17	•			1	17	0%	V		1	17	•	Ŭ	1	17
ס [⊾] Left		89	0	89	0		89	0	89	0%	0	89	0	89	0	89	0	89
ן by Lt-Th	S/B RTOR:	03	0	0	v		03	0	0	0%	U	03	0	0	v	03	0	0
pun ↓Lt-Th oq ↓ Thru un ↓ Th-Rt o ↓ Right	Existing: 50%	6	0	0	0		6	0	0	0%	0	6	0	0	0	6	0	0
ਦੂ ⊷ Th-Rt	Projected: 50%	0	0	0	U		0	0	0	0%	U	0	0	0	U	0	0	0
Right	Mitigated: 50%	47	0	47	0		47	0	47	0%	0	47	0	47	0	47	0	47
[™] ↔ Shared		47	1	142	U		47	1	142	0%	U	47	1	142	0	47	1	142
ل ل_Left		00	1	23	•		00	1	23	0%	0	00	1	23	0	00	1	23
$\begin{array}{c} \begin{array}{c} \text{L} \\ \text{Dunoqly} \\ \text{Thru} \\ \text{Thru} \\ \text{Th-Rt} \\ \end{array}$	E/B RTOR:	23	0	0	0		23	0	0	0%	0	23	0	0	0	23	0	0
$\overrightarrow{O} \rightarrow \text{Thru}$	Existing: 50%	0.45	2	423			0.45	2	423	(15%)	40	050	2	429	_	050	2	429
⊕ → Th-Rt	Projected: 50%	845	0	0	0		845	0	0	(15%)	13	858	0	0	0	858	0	0
Right	Mitigated: 50%		1	2				1	2	0%	_		1	2			1	2
Shared		6	O	0	0		6	0	0	0%	0	6	0	0	0	6	0	0
Cleft			1	3				1	3	0%			1	3			1	3
0	W/B RTOR:	3	O	0	0		3	0	0	0%	0	3	0	0		3	O	0
O ← Thru	Existing: 50%		2	790				2	790	15%			2	803			2	803
ts ← Th-Rt	Projected: 50%	1580	0	0	0		1580	0	0	15%	26	1606	0	000	0	1606		000
	Mitigated: 50%		1	289				1	289	0%			1	289			1	289
Shared	Willigated. 5070	333	0	200	0		333	Ö	200	0%	0	333	0	200	0	333	ò	200
	itical Volumes:	North-		151			North-S	· ·	151	070		North-		151		North	South:	151
CI	lucal volumes.																	
			West:	813			East-		813				-West:	826			-West:	826
			Total:	964			I	Fotal:	964				Total:	977			Total:	977
	apacity (<i>v/c</i>) ratio:			0.803					0.803					0.814				0.814
v∕c less AT	SAC adjustment:			0.803					0.803					0.814				0.814
Level	of Service (LOS):			D					D					D				D
												<u>P</u> R	OJE	ЕСТ	IMPA	АСТ		
Filename:	K:\LDT_LDEV\99038001 Washi	ington & National Lowe	e\Documents\Tr	raffic\Analvsis\CM4	Calc Forms\Addition	nal Intersections			С	hange in	v/c due	to project:		0.011	$\Delta v/c$ after	mitigation:		0.011
	5-2007 by Ken Aitchis	-		,						•		impacted?		NO		mitigated?		N/A
	-									0.gi								/ / .

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Intersection No. 2	2015	, EXIST	ING	2015	PROJEC	TED CUMU	LATIVE	BASE			5, WITH PF	ROJECT		2015, WI	TH TRAFF	IC MITI	GATION
North/South Street:	Critical	Phases:	0	Ambient C	<u>Growth</u>	Critical	Phases:	0		ljacent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	0
Cattaraugus Ave	С	apacity:	1200	from:	2015	C	apacity:	1200	Trip	AM	173	83	256		С	apacity:	1200
East/West Street:	Signal	System:	1	to:	2015	Signal S	System:	1	Gen 1	PM	127	174	301	Use Dist	21 Signal	System:	1
Washington Blvd	v/c re	duction:	0%	at:	1.0%	v/c red	duction:	0%	Trip	AM	0	0	0		v/c re	duction:	0%
Analysis Date: 01/21/201	Copposed F	Phasing:	0			Opposed F	hasing:	0	Gen 2	PM	0	0	0		Opposed I	Phasing:	0
PM Peak: 5:00 PM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	Total		Lane	3	Total		Lane
	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume		Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
ב Left	- 4	0	4	0		4	0	4	0%	0	4	0	4	0	4	0	4
St Lt-Th <u>N/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
D Left Un → Lt-Th O ↑ Thru Existing: 75% Projected: 75% O ← Th-Rt Projected: 75% Mitigated: 75%	2	0	0	0		2	0	0	0%	0	2	0	0	0	2	0	0
th-Rt Projected: 75%		0	0				0	0	0%		_	0	0	Ŭ	-	0	0
	3	0	3	0		3	0	3	0%	0	3	0	3	0	3	0	3
Shared		1	9	`		Ŭ	1	9	0%	v	Ŭ	1	9	•	Ŭ	1	9
₽ <u>Left</u>	- 60	0	60	0		60	0	60	0%	0	60	0	60	0	60	0	60
∃ →Lt-Th <u>S/B RTOR:</u>	00	0	0	U U		00	0	0	0%	•	00	0	0	•	00	0	0
$\begin{array}{c c} & & & \\ &$	2	0	0	0		2	0	0	0%	0	2	0	0	0	2	0	0
frojected: 50%	<u> </u>	0	0	U		2	0	0	0%	U	2	0	0	U	2	0	0
Right Mitigated: 50%	38	0	38	0		38	0	38	0%	0	38	0	38	0	38	0	38
∽ ↔ Shared		1	100	0		30	1	100	0%	U	30	1	100	U	30	1	100
→ Left	20	1	20	0		20	1	20	0%	0	20	1	20	0	20	1	20
$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \end{array}\end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} $	20	0	0	0		20	0	0	0%	U	20	0	0	U	20	0	0
$\overrightarrow{O} \rightarrow$ Thru Existing: 50%	4400	2	590			4400	2	590	(15%)	200	4000	2	603		4000	2	603
$\frac{2}{10}$ \rightarrow Th-Rt Projected: 50%	1180	0	0	0		1180	0	0	(15%)	26	1206	0	0	0	1206	0	0
Right Mitigated: 50%		1	7			0	1	7	0%		0	1	7	0	0	1	7
Shared	9	0	0	0		9	0	0	0%	0	9	0	0	0	9	0	0
<u>C</u> left	10	1	12			4.0	1	12	0%	_	10	1	12	_	4.0	1	12
$rac{1}{2}$ $rac{$	12	0	0	0		12	0	0	0%	0	12	0	0	0	12	0	0
O ← Thru Existing: 50%	0.15	2	458			0.4 5	2	458	15%	40	004	2	467	_	004	2	467
Th-Rt Projected: 50%	915	0	0	0		915	0	0	15%	19	934	0	0	0	934	0	0
Mitigated: 50%		1	48				1	48	0%	_		1	48	_		1	48
Shared	- 78	0	0	0		78	0	0	0%	0	78	0	0	0	78	0	0
Critical Volume	North	South:	104			North-	South:	104			North-	South	104		North	South:	104
Childar volume		-West:	602				-West:	602				-West:	615			-West:	615
		Total:	706				Total:	706				Total:	719			Total:	719
		rotal.					rotal.					rotal.				rotal.	
Volume/capacity (v/c) ra			0.588					0.588					0.599				0.599
v/c less ATSAC adjustme	nt:		0.588					0.588					0.599				0.599
Level of Service (LO	S):		А					А					А				Α
											PR	OJE	ЕСТ	IMPA	A C T		
Filename: K:\LDT_LDEV\99038001	Washington & National Low	/e\Documents\Ti	raffic\Analysis\CMA	ACalc Forms\Addition	onal Intersections			С	hange ir	n v/c due	to project:		0.011	$\Delta v/c$ after	mitigation:		0.011
Developed 2005-2007 by Ken Ai	-		-						•		impacted?		NO		mitigated?		N/A
· · ·									9.	J	1				5		, , ,

Intersect	tion No. 3	2015	, EXISTI	NG	2015	PRO IFC	TED CUMU		BASE		2015	, WITH PF			2015 WI	TH TRAFF		ATION
North/South Str			Phases:		Ambient (Phases:		□ Ad	acent	<u>In</u>	Out	<u>Total</u>			Phases:	
La Cienega			apacity:		from:	2015		apacity:		Trip	AM	173	83	256			apacity:	-
East/West Stree			System:		to:	2015		System:		Gen 1	PM	127	174		Use Dist		System:	
Washingtor		0	duction:		at:	1.0%	•	duction:		Trip	AM	0	0	0	2	-	duction:	
Analysis Date:		Opposed P					Opposed P			Gen 2	PM	0	0	0		Opposed		
-		Counts	5	Lane	+ Amb.	+ Area	= Total	5	Lane	+	Project	= Total		Lane	Adjusted	Total	5	Lane
AM Peak:	8:00 AM	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume	١	/olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
Left رَح		338	1	338	0		338	1	338	0%	0	338	1	338	0	338	1	338
P Left Lt-Th Q ↑ Thru Q ↑ Th-Rt Q ↑ Right	<u>N/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
<u> </u>	Existing: 75%	1562	2	529	0		1562	2	529	0%	0	1562	2	529	0	1562	2	529
£ i≁Th-Rt	Projected: 75%		1	529				1	529	0%			1	529			1	529
Ō ← Right	Mitigated: 75%	24	0	0	0		24	0	0	0%	0	24	0	0	0	24	0	0
`Y'Shared			0	0				0	0	0%			0	0			0	0
₽ [⊾] Left		113	1	113	0		113	1	113	0%	0	113	1	113	0	113	1	113
Lt-Th	<u>S/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
O ↓ Thru	Existing: 50%	1076	2	369	0		1076	2	369	0%	0	1076	2	369	0	1076	2	369
Punoq↓ Thru qunoq↓ Thru throq↓ Th-Rt Qunoy Right	Projected: 50%		1	369				1	369	0%			1	369			1	369
Right	Mitigated: 50%	32	0	0	0		32	0	0	0%	0	32	0	0	0	32	0	0
Shared			0	0				0	0	0%	-		0	0			0	0
Left		58	1	58	0		58	1	58	0%	0	58	1	58	0	58	1	58
⊑ → Lt-Th	<u>E/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
o → Thru	Existing: 50%	639	2	320	0		639	2	320	(15%)	13	652	2	326	0	652	2	326
$\begin{array}{c} \downarrow \downarrow Lt-Th \\ rac{d}{d} \Rightarrow Thru \\ tsr \downarrow \uparrow Th-Rt \\ rac{d}{d} \Rightarrow Right \end{array}$	Projected: 50%		0	0				0	0	(15%)			0	0			0	0
∧	Mitigated: 50%	120	1	0	0		120	1	0	0%	0	120	1	0	0	120	1	0
			0	0				0	0	0%			0	0			0	0
ס < Left		72	1	72	0		72	1	72	0%	0	72	1	72	0	72	1	72
⊑ ⊊ Lt-Th	W/B RTOR:		0	0				0 0	0	0%			0	0			0	0
O ← Thru	Existing: 50%	1148	2	574	0		1148	2	574	15%	26	1174	2	587	0	1174	2	587
tt-Th → Thru ts → C Right	Projected: 50%		0	0				0	0	15%			0	0			0	0
\mathbb{A} \mathbb{A} Right	Mitigated: 50%	296	1	240	0		296	1	240	0%	0	296	0	240	0	296	1	240
Shared			•	`				0	V	0%							•	0
Cr	ritical Volumes:	North-		707			North-		707				South:	707			South:	707
			-West:	632				-West:	632				-West:	645		East	-West:	645
			Total:	1339				Total:	1339				Total:	1352			Total:	1352
Volume/ca	apacity (<i>v/c</i>) ratio:			0.940					0.940					0.949				0.949
v∕c less AT	SAC adjustment:			0.870					0.870					0.879				0.879
Level	of Service (LOS):			D					D					D				D
L												ΡR	OJE	ECT	IMPA	ΑСТ		
Filename:	K:\LDT_LDEV\99038001 Wash	ington & National Lowe	e\Documents\Tr	affic\Analysis\CMA	Calc Forms\Addition	onal Intersections			С	hange in	v/c due	to project:		0.009	$\Delta v/c$ after		(0.009
	5-2007 by Ken Aitchis	-								•		impacted?		NO		mitigated?		N/A
	,									e.gn				110	· any	gatoa		

Intersect	ion No. 3	2015	EXISTI	NG	2015	PROJEC	TED CUMU	IATIVE	BASE		2015	, WITH PF	ROJECT		2015, WI	TH TRAFF		GATION
North/South Stre			Phases:		Ambient (Phases:		□ Ad	jacent	, <u>In</u>	Out	<u>Total</u>	2010, 11		Phases:	
La Cienega			apacity:	-	from:	2015		apacity:		Trip	AM	173	83	256			apacity:	-
East/West Street			System:		to:	2015		System:		Gen 1	PM	127	174		Use Dist		System:	
Washington		0	luction:		at:	1.0%	0	duction:		Trip	AM	0	0	0	2	0	duction:	
Analysis Date:		Opposed P					Opposed F			Gen 2	PM	0	0	0		Opposed I		
	5:00 PM	Counts	5	Lane	+ Amb.	+ Area	= Total	5	Lane		Project	Total		Lane	Adjusted	Total	5	Lane
PM Peak:	5:00 PIVI	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume		/olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
Left آ ص		116	1	116	0		116	1	116	0%	0	116	1	116	0	116	1	116
p 1 Left Lt-Th oq ↑ Thru ↓ Th-Rt o ← Right	<u>N/B RTOR:</u>	110	0	0	Ŭ		110	0	0	0%	•	110	0	0		110	0	0
<u>8</u> ↑ Thru	Existing: 75%	932	2	337	0		932	2	337	0%	0	932	2	337	0	932	2	337
ך וֹיד Th-Rt	Projected: 75%	002	1	337	Ŭ		002	1	337	0%	•	002	1	337	U U	002	1	337
🧕 🔿 Right	Mitigated: 75%	78	0	0	0		78	0	0	0%	0	78	0	0	0	78	0	0
[∠] ↔ Shared		10	0	0			10	0	0	0%	•	10	0	0	U	10	0	0
די ^{Left}		282	1	282	0		282	1	282	0%	0	282	1	282	0	282	1	282
ק ל⇒Lt-Th	<u>S/B RTOR:</u>	202	0	0	Ŭ		202	0_	0	0%	•	202	0	0	U U	202	0_	0
pun b-Lt-Th oq ↓ Thru qut → Th-Rt ov Right	Existing: 50%	1516	2	516	0		1516	2	516	0%	0	1516	2	516	0	1516	2	516
ਦੂ ⊷ Th-Rt	Projected: 50%	1510	1	516	U		1010	1	516	0%	•	1310	1	516	U	1010	1	516
Right ↓	Mitigated: 50%	32	0	0	0		32	0	0	0%	0	32	0	0	0	32	0	0
⁽⁷⁾ ↔ Shared		52	0	0	U		52	0	0	0%	U	52	0	0	U	52	0	0
Left		78	1	78	0		78	1	78	0%	0	78	1	78	0	78	1	78
$\begin{array}{c} \begin{array}{c} \downarrow \\ \mu \\ \neg \\ \neg \\ \neg \\ \neg \\ \mu \\ \neg \\ \hline \\ \mu \\ \neg \\ \hline \\ \mu \\ \neg \\ \hline \\ \\ \mu \\ \neg \\ \hline \\ \\ \hline \\ \\ \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	<u>E/B RTOR:</u>	10	0_	0	U		70	0_	0	0%	•	70	0_	0	U	70	0_	0
od → Thru	Existing: 50%	1303	2	652	0		1303	2	652	(15%)	26	1329	2	665	0	1329	2	665
ਜੋਂ → Th-Rt	Projected: 50%	1303	0	0	Ŭ		1505	0	0	(15%)	20	1523	0	0	U	1525	0	0
ю́ 🤉 Right	Mitigated: 50%	159	1	101	0		159	1	101	0%	0	159	1	101	0	159	1	101
Shared		159	0	0	U		159	0	0	0%	U	159	0	0	U	159	0	0
← Left		73	1	73	0		73	1	73	0%	0	73	1	73	0	73	1	73
⊆ 🛠 Lt-Th	W/B RTOR:	15	0	0	U		75	0	0	0%	0	75	0	0	U	13	0	0
g ← Thru	Existing: 50%	640	2	320	0		640	2	320	15%	19	659	2	330	0	659	2	330
ਜੋਂ ← Th-Rt	Projected: 50%	040	0	0	U		040	0	0	15%	19	059	0	0	U	009	0	0
$\begin{array}{c} p \downarrow \ \ Lorr \\ r \downarrow \ \ Lt-Th \\ r \downarrow \ \ Th-Rt \\ \hline \\ P \downarrow \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	Mitigated: 50%	119	1	0	0		119	1	0	0%	0	119	1	0	0	119	1	0
		119	0	0	U		119	0	0	0%	U	119	0	0	U	119	0	0
Cri	itical Volumes:	North-	South:	632			North-	South:	632			North-	South:	632		North	South:	632
		East-	West:	725				-West:	725				-West:	738			-West:	738
			Total:	1357				Total:	1357				Total:	1370			Total:	1370
Volume/ca	pacity (<i>v/c</i>) ratio:			0.952					0.952					0.961				0.961
-	SAC adjustment:			0.882					0.882					0.891				0.891
Level o	of Service (LOS):			D					D					<u>D</u> - С Т				D
									-		, .	<u>P R</u>		- • ·	IMPA			
	K:\LDT_LDEV\99038001 Washi		Nocuments\Tra	affic\Analysis\CMA	Calc Forms\Additi	onal Intersections			C	0		to project:		0.009	$\Delta v/c$ after	0	(0.009
Developed 2005	5-2007 by Ken Aitchis	son								Sign	ificantly i	mpacted?		NO	Fully	mitigated?		N/A

				1										ł			
Intersection No. 1		2015				TED CUMUL			-		, WITH PF	ROJECT		2019, WI	TH TRAFF		
North/South Street:	Critical	Phases:	0	Ambient (Critical P	hases:	4	🛛 Adj	acent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	4
Wesley Ave	(Capacity:	1200	from:	2015	Ca	pacity:	1375	Trip	AM	173	83	256			apacity:	
East/West Street:	Signal	System:	1	to:	2019	Signal S	ystem:	2	Gen 1	PM	127	174	301	Use Dist	21 Signal S	System:	2
Washington Blvd	v/c r€	eduction:	0%	at:	1.0%	v/c red	uction:	7%	Trip	AM	0	0	0		v/c red	duction:	7%
Analysis Date: 01/21/2016	Opposed	Phasing:	0			Opposed Ph	nasing:	1	Gen 2	PM	0	0	0		Opposed F	hasing:	1
AM Peak: 8:00 AM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	= Total		Lane	Adjusted	Total		Lane
	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume		olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
בי Left	0	0	0	0	68	68	0	68	0%	0	68	0	68	0	68	0	68
S ↓ Lt-Th <u>N/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
C Right Left N/B RTOR: N/B RTOR: N/B RTOR: N/B RTOR: Existing: 50% Projected: 50% Mitigated: 50%	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0	0	0
↓↓Th-RtProjected: 50%	- T	0	0	Ŭ	Ŭ	Ŭ	0	0	0%			0	0	· · ·	Ŭ	0	0
	1	0	1	0	17	18	0	18	0%	0	18	0	18	0	18	0	18
Z Shared		1	1	0		10	1	<mark>86</mark>	0%	U	10	1	<mark>86</mark>	U	10	1	<mark>86</mark>
Seft	0	0	0	0	1	1	0	1	0%	0	1	0	1	0	1	0	1
S →Lt-Th S/B RTOR:	0	0	0	0	1	1	0	0	0%	U	1	0	0	U	1	0	0
$\begin{array}{c} \text{SLEIT} \\ \text{Purple Lt-Th} \\ \text{OQ} \downarrow \text{Thru} \\ \text{Th-Rt} \\ \text{Projected: 50\%} \\ \text{Order J} \\ \text{Right} \\ \end{array}$	_	0	0	0	~	0	0	0	0%	0	0	0	0	0	0	0	0
Th-Rt Projected: 50%	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0	0	0
Right Mitigated: 50%		0	0		05	0-	0	25	0%		0.5	0	25	•		0	25
Shared 3	0	1	0	0	25	25	1	26	0%	0	25	1	26	0	25	1	26
⊥ Left		1	0				1	41	0%			1	41			1	41
	- 0	O	0	0	41	41	0	0	0%	0	41	0	0	0	41	0	0
$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \end{array}\end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} $		1	482				1	512	(15%)			1	519			1	519
$f_{ij} \rightarrow Th-Rt$ Projected: 50%	960	1	482	39	7	1006	1	512	(15%)	13	1019	1	519	0	1019	1	519
Tigeted: 50%		0	402				0	0	0%			0	0			0	0
Right Mitigated: 50%	- 4			0	14	18	0			0	18	0		0	18	0	
Shared		0	0				1	0	0%				0			1	0 17
	3	1	3	0	14	17		17	0%	0	17	1	17	0	17	•	
⊆ ∽ Lt-Th <u>W/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
$\begin{array}{c} \begin{array}{c} & & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ $	1634	1	817	66	27	1727	1	865	15%	26	1753	1	878	0	1753	1	878
$\frac{1}{50} \stackrel{\text{c}}{\leftarrow} \text{Th-Rt}$ Projected: 50%		1	817				1	865	15%			1	878			1	878
	0	0	0	0	2	2	0	0	0%	0	2	0	0	0	2	0	0
> → Shared		0	0		-	-	0	0	0%		-	0	0		_	0	0
Critical Volumes	: North	-South:	1			North-S	South:	112			North-	South:	112		North-	South:	112
	Eas	t-West:	817			East-	West:	906			East	-West:	919		East	-West:	919
		Total:	818				Fotal:	1018				Total:	1031			Total:	1031
Volume/capacity (v/c) ratio			0.682			•		0.740					0.750				0.750
v/c less ATSAC adjustmen			0.682					0.670					0.680				0.680
Level of Service (LOS):		В					В			_		B				В
													ЕСТ	IMPA			
Filename: K:\LDT_LDEV\99038001 Wa	ashington & National Lo	we\Documents\T	raffic\Analysis\CMA	ACalc Forms\Additi	onal Intersections			С	hange in	v/c due	to project:		0.010	$\Delta v/c$ after	mitigation:		0.010
Developed 2005-2007 by Ken Aitc	hison								Signi	ificantly	impacted?		NO	Fully	mitigated?		N/A

	1			-					r				-				
Intersection No. 1		2015		2019	, PROJEC	TED CUMUL	ATIVE	BASE			, WITH PF	ROJECT		2019, WI	TH TRAFF	IC MITI	GATION
North/South Street:	Critical	Phases:	0	Ambient C	Growth	Critical P	hases:	4	🛛 Adj	jacent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	4
Wesley Ave	C	apacity:	1200	from:	2015	Са	pacity:	1375	Trip	AM	173	83	256		С	apacity:	1375
East/West Street:	Signal S	System:	1	to:	2019	Signal S	system:	2	Gen 1	PM	127	174	301	🔲 Use Dist	21 Signal	System:	2
Washington Blvd	v/c red	duction:	0%	at:	1.0%	v/c red	uction:	7%	Trip	AM	0	0	0		v/c re	duction:	7%
Analysis Date: 01/21/2016	Opposed P	hasing:	0			Opposed Pl	hasing:	1	Gen 2	PM	0	0	0		Opposed F	Phasing:	1
PM Peak: 5:00 PM	Counts		Lane	-	+ Area	= Total		Lane		Project	Total		Lane	3	Total		Lane
	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume		/olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
Left ר	5	0	5	0	100	105	0	105	0%	0	105	0	105	0	105	0	105
Diamond Left Un → Lt-Th Og ↑ Thru Existing: 50% Un → Th-Rt Projected: 50% O Right Mitigated: 50%		0	0				0	0	0%			0	0			0	0
C Thru Existing: 50%	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0	0	0
Th-Rt Projected: 50%		0	0		Ŭ		0	0	0%			0	0	Ŭ		0	0
	7	0	7	0	25	32	0	32	0%	0	32	0	32	0	32	0	32
∠ ↔ Shared		1	12	· ·	20	02	1	137	0%	•	02	1	137		02	1	137
ס ֻ Left	0	0	0	0	3	3	0	3	0%	0	3	0	3	0	3	0	3
$\begin{array}{c} & \downarrow \\ & \downarrow \\$	U U	0	0	Ŭ	Ŭ	Ŭ	0	0	0%		Ŭ	0	0	· · ·	Ŭ	0	0
B ↓ Thru Existing: 50%	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0	0	0
HTh-RtProjected: 50%Nitigated: 50%Mitigated: 50%	v	0	0	Ŭ	U	U	0	0	0%	U	0	0	0	•	v	0	0
Right Mitigated: 50%	0	0	0	0	61	61	0	61	0%	0	61	0	61	0	61	0	61
∽ ↔ Shared	U	1	0	0	01	01	1	64	0%	U	01	1	64	U	01	1	64
✓ Left	0	1	0	0	33	33	1	33	0%	0	22	1	33	0	33	1	33
² → Lt-Th <u>E/B RTOR:</u>		0	0	0	33	33	0	0	0%	U	33	0	0	U	33	0	0
$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ $	4040	1	625	51	20	4007	1	679	(15%)	200	4050	1	692		4050	1	692
$\frac{2}{10}$ \rightarrow Th-Rt Projected: 50%	1248	1	625	51	28	1327	1	679	(15%)	26	1353	1	692	0	1353	1	692
Right Mitigated: 50%		0	0		20	04	0	0	0%	0	04	0	0		04	0	0
Generation Shared	1	0	0	0	30	31	0	0	0%	0	31	0	0	0	31	0	0
_ C Left		1	1	0	20	0.4	1	31	0%			1	31	•	0.1	1	31
$\begin{array}{c} \begin{array}{c} & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ \end{array} \begin{array}{c} & & \\$	1	0	0	0	30	31	0	0	0%	0	31	0	0	0	31	0	0
Q ← Thru Existing: 50%	077	1	489	10		4000	1	515	15%	40	4047	1	524	_	40.47	1	524
$\frac{2}{10}$ $\stackrel{1}{\sim}$ Th-Rt Projected: 50%	977	1	489	40	11	1028	1	515		19	1047	1	524	0	1047	1	524
Mitigated: 50%		0	0		_		0	0	0%			0	0	_		0	0
> → Shared	0	0	0	0	2	2	0	0	0%	0	2	0	0	0	2	0	0
Critical Volumes:	North-	South:	12			North-S	South:	201			North-	South:	201		North	South:	201
Cilical volumes.		-West:	626				West:	710				-West:	723			-West:	723
		Total:	638				Total:	911				Total:	924			Total:	924
		i Utal.				I	i Ulai.					i olai.				rotal.	
Volume/capacity (v/c) ratio:			0.531					0.663					0.672				0.672
v/c less ATSAC adjustment:			0.531					0.593					0.602				0.602
Level of Service (LOS):			Α					А					В				В
											<u>P R</u>	OJE	ЕСТ	IMPA	<u> </u>		
Filename: K:\LDT_LDEV\99038001 Wash	ington & National Low	e\Documents\Ti	raffic\Analysis\CM/	ACalc Forms\Addition	onal Intersections ,			С	hange in	v/c due	to project:		0.009	$\Delta v/c$ after	mitigation:		0.009
Developed 2005-2007 by Ken Aitchis	son								Sign	ificantly	impacted?		NO	Fully	mitigated?		N/A
									-	-	-			3	-		

r																		
Intersect	tion No. 2		2015				TED CUMU	LATIVE	BASE	_		, WITH PF	ROJECT		2019, WI	TH TRAFF		GATION
North/South Str	reet:	Critical	Phases:	0	Ambient G	irowth	Critical	Phases:	4	□ Ad	jacent	<u>In</u>	<u>Out</u>	<u>Total</u>		Critical	Phases:	4
Cattaraugu	is Ave	Ca	apacity:	1200	from:	2015	C	apacity:	1375	Trip	AM	173	83	256		С	apacity:	1375
East/West Stree	et:	Signal S	System:	1	to:	2019	Signal S	System:	2	Gen 1	PM	127	174	301	🛛 Use Dist	21 Signal	System:	2
Washingtor	n Blvd	v/c red	duction:	0%	at:	1.0%	v/c red	duction:	7%	Trip	AM	0	0	0		v/c ree	duction:	7%
Analysis Date:	01/21/2016	Opposed P	hasing:	0			Opposed F	hasing:	1	Gen 2	PM	0	0	0		Opposed F	hasing:	1
AM Peak:	8:00 AM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	= Total		Lane	Adjusted	Total		Lane
	0.00710	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume		/olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
Left		9	0	9	0	0	9	0	9	0%	0	9	0	9	0	9	0	9
⊑ f Lt-Th	<u>N/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
Pun ↓ Lt-Th og ↑ Thru un ↓ Th-Rt o ← Right	Existing: 50%	5	0	0	0	0	5	0	0	0%	0	5	0	0	0	5	0	0
f fr Th-Rt	Projected: 50%		0	0			_	0	0	0%		-	0	0		-	0	0
	Mitigated: 50%	3	0	3	0	0	3	0	3	0%	0	3	0	3	0	3	0	3
[∠] ↔ Shared			1	17		•		1	18	0%	•		1	18			1	18
ס [⊆] Left		89	0	89	4	0	93	0	93	0%	0	93	0	93	0	93	0	93
S ⊱Lt-Th	S/B RTOR:	00	0	0		•	00	0	0	0%		00	0	0	•	00	0	0
Pun ↓Lt-Th oquino ↓ Thru ↓ Th-Rt ↓ Right	Existing: 50%	6	0	0	0	0	6	0	0	0%	0	6	0	0	0	6	0	0
ਦੂ ⊷ Th-Rt	Projected: 50%	U	0	0	v	•	U	0	0	0%	•	0	0	0	v	v	0	0
Right لم 🖸	Mitigated: 50%	47	0	47	2	0	49	0	49	0%	0	49	0	49	0	49	0	49
∽ ↔Shared		47	1	142	2	U	49	1	148	0%	U	49	1	148	U	43	1	148
J Left		23	1	23	1	0	24	1	24	0%	0	24	1	24	0	24	1	24
ב → Lt-Th	E/B RTOR:	23	0	0	1	U	24	0	0	0%	U	24	0	0	U	24	0	0
$\begin{array}{c} \begin{array}{c} \text{purper Lt-Th} \\ \text{noq} \rightarrow \text{Thru} \\ \text{fg} \rightarrow \text{Th-Rt} \end{array}$	Existing: 50%	0.45	2	423	24	25	004	2	452	(15%)	10	047	2	459	0	047	2	459
$\frac{2}{10}$ \rightarrow Th-Rt	Projected: 50%	845	0	0	34	25	904	0	0	(15%)	13	917	0	0	0	917	0	0
Right	Mitigated: 50%		1	2		_	•	1	1	0%	_	•	1	1			1	1
[™] √ Shared		6	0	0	0	0	6	0	0	0%	0	6	0	0	0	6	0	0
_ C Left			1	3		•	_	1	3	0%	~	_	1	3	_	_	1	3
punoqty Lt-Th o← Thru ts ← Th-Rt	W/B RTOR:	3	0	0	0	0	3	0	0	0%	0	3	0	0	0	3	0	0
O ← Thru	Existing: 50%	4500	2	790		10	4007	2	844	15%		1710	2	857		4740	2	857
₽ to th-Rt	Projected: 50%	1580	0	0	64	43	1687	0	0	15%	26	1713	0	0	0	1713	0	0
Å ← Right	Mitigated: 50%		1	289			o (=	1	301	0%		o (=	1	301		o /=	1	301
Shared		333	0	0	14	0	347	0	0	0%	0	347	0	0	0	347	0	0
	ritical Volumes:	North-	South:	151	I		North	South:	165			North	South:	165		North-	South:	165
			-West:	813				-West:	868				-West:	881			-West:	881
			Total:	964					1033				Total:	1046			Total:	1046
			rotal:					Total:					rotal.				rotal:	
	apacity (<i>v/</i> c) ratio:			0.803					0.751					0.761				0.761
v/c less AT	SAC adjustment:			0.803					0.681					0.691				0.691
Level	of Service (LOS):			D					В					В				В
												PR	2 O J E	ЕСТ	IMPA	A C T		
Filename:	K:\LDT_LDEV\99038001 Washi	ington & National Low	e\Documents\T	raffic\Analysis\CMA	Calc Forms\Addition	nal Intersections			С	hange in	<i>v∕c</i> due	to project:		0.010	$\Delta v/c$ after	mitigation:		0.010
Developed 200	5-2007 by Ken Aitchis	-		-						•		impacted?		NO		mitigated?		N/A
-	-									- <u></u>	· · · · · · · · · · · · · · · · · · ·	1.			, in J	9		

-					1										1			
<u>Intersectio</u>		2015		2019, PROJECTED CUMULATIVE BASE							, WITH PF	ROJECT	2019, WITH TRAFFIC MITIGATION					
North/South Street:		Critical Phases: 0		Ambient Growth		Critical Phases: 4		Adjacent		<u>In</u>	<u>Out</u>	<u>Total</u>			Phases:	4		
Cattaraugus Ave		Capacity: 1200		from:	2015	Capacity: 1375		Trip AM 17		173	83	256	1997)		apacity:	1375		
East/West Street:		Signal System: 1		to:	2019	Signal System: 2		2	Gen 1	PM	127	174	301	Use Dist	21 Signal	System:	2	
Washington Blvd		v/c reduction: 0%		at:	1.0%			Trip AM		0	0	0) v/c reduct		duction:	7%		
Analysis Date:	01/21/2016	Opposed Phasing: 0		0	Opposed Phasi		hasing:	1	Gen 2 PM		0 0		0) Opposed Phasing		hasing:	1	
PM Peak:	5:00 PM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	Total		Lane	Adjusted	Total		Lane
5 1-0		Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume	0%	/olume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
		4		4	0	0	4	0	4	0%	0	4	0	4	0	4	0	4
S ← Lt-Th N/	I <u>/B RTOR:</u>		0					0	0	0%			· · · · ·	0			0	0
C ↑ Thru Ex	xisting: 75%	2	0	0	0	0	2	0	0		0	2	0	0	0	2	0	0
fr fr Th-Rt Pr	rojected: 75%		0	0				0	0	0%			•	0			0	0
	litigated: 75%	3	0	3	0	0	3	0	3	0%	0	3	0	3	0	3	0	3
[∠] ↔ Shared			1	9				1	9	0%	_		1	9			1	9
		60	0	60	2	0	62	0	62	0%	0	62	0	62	0	62	0	62
S →Lt-Th S/	<u>/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
	xisting: 50%	2	0	0	0	0	2	0	0	0%	0	2	0	0	0	2	0	0
th-Rt Pr	rojected: 50%		0	0				0	0	0%			0	0			0	0
	litigated: 50%	38	0	38	2	0	40	0	40	0%	0	40	0	40	0	40	0	40
↔Shared			1	100				1	104	0%			1	104			1	104
Left		20	1	20	1	0	21	1	21	0%	0	21	1	21	0	21	1	21
	<u>/B RTOR:</u>		0	0				0	0	0%			0	0			0	0
$\overrightarrow{O} \rightarrow \text{Thru} \text{Ex}$	xisting: 50%	1180	2	590	48	56	1284	2	642	(15%)	26	1310	2	655	0	1310	2	655
$\frac{1}{5}$ $$ Th-Rt Pr	rojected: 50%		0	0		00		0	0	(15%)	20		0	0		1010	0	0
Right Mi	litigated: 50%	9	1	7	0	0	9	1	7	0%	0	9	1	7	0	9	1	7
		Ŭ	0	0	Ŭ		Ŭ	0	0	0%		Ŭ	0	0	· ·	Ŭ	0	0
□ Left		12	1	12	0	0	12	1	12	0%	0	12	1	12	0	12	1	12
punoqty Lt-Th w v Lt-Th w tr tr tr tr tr tr tr tr tr tr	V/B RTOR:	12	0	0	Ŭ		12	0	0	0%		12	0	0	· · · ·	12	0	0
Ö ← Thru Ex	xisting: 50%	915	2	458	37	42	994	2	497	15%	19	1013	2	507	0	1013	2	507
$\frac{1}{5}$ $\stackrel{\text{c}}{\leftarrow}$ Th-Rt Pr	rojected: 50%	010	0	0	01	72	004	0	0	15%	10	1010	0	0	Ŭ	1010	0	0
	litigated: 50%	78	1	48	3	0	81	1	50	0%	0	81	1	50	0	81	1	50
> → Shared		10	0	0		0	01	0	0	0%	U	01	0	0	•	01	0	0
Critic	ical Volumes:	North-South: 104			North-South: 113					North-South: 113						North-South: 113		
		East-West: 602							654							East	-West:	667
				706					768			Total:		781			Total:	781
Volume/capacity (v/c) ratio:				0.588					0.558					0.568				0.568
				0.588					0.488					0.498				0.498
v/c less ATSAC adjustment:																		
Level of	Service (LOS):			А					A					A				A
													OJE	-	IMPA			
	LDT_LDEV\99038001 Washi	-	e\Documents\T	raffic\Analysis\CMA	Calc Forms\Addition	nal Intersections			С	•		to project:		0.010		0		0.010
Developed 2005-2007 by Ken Aitchison										Sign	ificantly i	impacted?		NO	Fully	mitigated?		N/A

Intersection No. 3		2015															
				2019, PROJECTED CUMULATIVE BASE							, WITH PF		2019, WITH TRAFFIC MITIGATION				
North/South Street:	Critical Phases: 3		Ambient Growth		Critical Phases: 3		Adjacent		In	<u>Out</u>	<u>Total</u>			Phases:			
La Cienega Blvd	Capacity: 1425		from:	2015	Capacity: 1425			Trip			83	256			, ,		
East/West Street:	Signal System: 2		to:	2019	Signal System: 2			Gen 1	12,		174				,		
Washington Blvd	v/c reduction: 7%		at:	1.0%			Trip	• • • • •		0	0	v/c reduction					
Analysis Date: 01/21/2016	Opposed Phasing: 0		0	Opposed Phasing: O			Gen 2 PM		0 0		0			hasing:	0		
AM Peak: 8:00 AM	Counts	Lanca	Lane	+ Amb.	+ Area	= Total	1.0000	Lane		Project	= Total	Lanaa	Lane	Adjusted	Total	Lonco	Lane
5 1-8	Volume	Lanes 1	Volume 338	Growth	Projects	Volume	Lanes	Volume 355	0%	Volume	Volume	Lanes	Volume 355	Volume	Volume	Lanes	Volume 355
$rac{1}{4}$ Lt-Th <u>N/B RTOR:</u>	338	0	0	14	3	355	0	333	0%	0	355	0	333	0	355	0	333
		2	529				2	550	0%			2	550			2	550
C Thru Existing: 50%	1562	2	529	63	0	1625	2	550	0%	0	1625	2	550	0	1625	2	550
Image: Projected: 50% Image: Projected: 50% Image: Projected: 50%							1	550	0%			0	550			1	550
O Right Mitigated: 50% → Shared	24	0	0	1	0	25	0	0	0%	0	25	· · · ·	0	0	25	0	0
		0	113				0	118	0%			<u>0</u> 1	118			0	118
	113			5	0	118	1	110		0	118	0	110	0	118		110
S →Lt-Th S/B RTOR:		0	0				0	0	0%			_	0			0	0
$\begin{array}{c c} & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ &$	1076	2	369	44	0	1120	2	385	0%	0	1120	2	385	0	1120	2	385
Th-Rt Projected: 50%		1	369				1	385	0%			1	385	-		1	385
	32	0	0	1	3	36	0	0	0%	0	36	0	0	0	36	0	0
Shared		0	0				0	0	0%	-		0	0			0	0
Left	58	1	58	2	4	64	1	64	0%	0	64	1	64	0	64	1	64
$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} Lt-Th \\ o \end{array} & \begin{array}{c} \underline{E/B \ RTOR:} \\ \hline \end{array} \\ \begin{array}{c} \hline \\ s \end{array} & \begin{array}{c} \hline \\ s \end{array} & \begin{array}{c} \hline \\ \end{array} \\ \begin{array}{c} \hline \\ s \end{array} \\ \begin{array}{c} \hline \\ \end{array} \\ \begin{array}{c} \hline \end{array} \\ \end{array} \\ \begin{array}{c} \hline \end{array} \\ \begin{array}{c} \hline \end{array} \\ \end{array} \\ \begin{array}{c} \hline \end{array} \\ \begin{array}{c} \hline \end{array} \\ \end{array} \\ \begin{array}{c} \hline \end{array} \\ \begin{array}{c} \hline \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \hline \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \hline \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \end{array} \\ \end{array} \end{array} \\ \begin{array}{c} \hline \end{array} \\ \end{array}$		0	0				0	0	0%			0	0			0	0
$\vec{O} \rightarrow \text{Thru}$ Existing: 50%	639	2	320	26	17	682	2	341	(15%)	13	695	2	347	0	695	2	347
$\frac{1}{5}$ $$ Th-Rt Projected: 50%	000	0	0			002	0	0	(15%)	10	000	0	0	, v		0	0
Right Mitigated: 50%	120	1	0	5	4	129	1	0	0%	0	129	1	0	0	129	1	0
	120	0	0	Ŭ		120	0	0	0%	Ŭ	120	0	0		120	0	0
← Left	72	1	72	3	0	75	1	75	0%	0	75	1	75	0	75	1	75
$rac{1}{2}$	12	0_	0	5	•	15	0	0	0%	<u> </u>	15	0_	0	•	15	0	0
Q ← Thru Existing: 50%	1148	2	574	47	36	1231	2	615	15%	26	1257	2	628	0	1257	2	628
$\frac{1}{50}$ $\stackrel{\text{C}}{\leftarrow}$ Th-Rt Projected: 50%	1140	0	0	- '	50	1201	0	0	15%	20	1201	0	0	U U	1201	0	0
⁰ ← Right Mitigated: 50%	296	1	240	12	0	308	1	249	0%	0	308	1	249	0	308	1	249
> Shared	290	0	0	12	U	300	0	0	0%	U	300	0	0	U	300	0	0
Critical Volumes:	North-South: 707			North-South: 740					North-South: 740					North-South: 740			
	East-West: 632					East-West: 680					East-West: 693				-West:	693	
		Total:	1339				Total:	1420				Total:	1433			Total:	1433
Volume/capacity (<i>v/c</i>) ratio:			0.940					0.996					1.005			· otan	1.005
v/c less ATSAC adjustment:			0.870					0.926					0.935				0.935
Level of Service (LOS):			D					E					E				E
													<u> C T</u>	IMPA			
Filename: K:\LDT_LDEV\99038001 Washin	ngton & National Low	e\Documents\Tr	raffic\Analysis\CMA	Calc Forms\Addition	nal Intersections			С	hange in	v/c due	to project:		0.009	$\Delta v/c$ after	0		0.009
Developed 2005-2007 by Ken Aitchise				Siar	nificantly i	impacted?		NO	Fully	mitigated?		N/A					

				-									-				
Intersection No. 3		2015			2019, PROJECTED CUMULATIVE BASE						, WITH PF	ROJECT	2019, WITH TRAFFIC MITIGATION				
North/South Street:	Critica	Critical Phases: 3		Ambient Growth		Critical Phases: 3		Adjacent		<u>In</u>			I Critical Phases		Phases:	3	
La Cienega Blvd		Capacity: 1425		from:	2015	Capacity: 1425		1425	Trip	Trip AM 173		83	256			apacity:	1425
East/West Street:	Signal	Signal System: 2		to:	2019	Signal	System:	2	Gen 1	PM	127	174	301	Use Dist	21 Signal	System:	2
Washington Blvd	v/c re	v/c reduction: 7%		at:	1.0%	v/c reduction: 7%		Trip	Trip AM O		0	0	v/c reduction		duction:	7%	
Analysis Date: 01/21/201	6 Opposed	Opposed Phasing: 0				Opposed Phasing: 0		Gen 2 PM 0		0	0	0) Oppos		ed Phasing: 0		
PM Peak: 5:00 PM	Counts		Lane	+ Amb.	+ Area	= Total		Lane		Project	Total		Lane	3	Total		Lane
	Volume	Lanes	Volume	Growth	Projects	Volume	Lanes	Volume		Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
	— 116	I	116	5	8	129	1	129	0%	0	129	1	129	0	129	1	129
D 1 Left Un 1 Lt-Th N/B RTOR: O 1 Thru Existing: 50% Un 1 Th-Rt Projected: 50% O C Right Mitigated: 50%		0	0				0	0	0%			0	0			0	250
S Thru Existing: 50%	932	2	337	38	0	970	2	350	0%	0	970	2	350	0	970	2	350
th-Rt Projected: 50°		1	337		_		1	350	0%			1	350			1	350
	⁶ 78	0	0	3	0	81	0	0	0%	0	81	0	0	0	81	0	0
Shared		0	0				0	0	0%			0	0		-	0	0
₽ ^{Left}	282	1	282	11	0	293	1	293	0%	0	293	1	293	0	293	1	293
S → Lt-Th S/B RTOR:		0	0				0	0	0%			0	0			0	0
$\begin{array}{c} & & \\$	1516	2	516	62	0	1578	2	540	0%	0	1578	2	540	0	1578	2	540
LLProjected: 50°LLProjected: 50°	6	1	516		Ŭ		1	540	0%			1	540	· · ·		1	540
	⁶ 32	0	0	1	8	41	0	0	0%	0	41	0	0	0	41	0	0
↔Shared	52	0	0		0		0	0	0%	U		0	0	V		0	0
Left	- 78	1	78	3	6	87	1	87	0%	0	87	1	87	0	87	1	87
$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ $	70	0	0	5	0	07	0	0	0%	U	07	0	0	U	07	0	0
$\vec{o} \rightarrow \text{Thru}$ Existing: 50%	1303	2	652	53	43	1399	2	699	(15%)	26	1425	2	712	0	1425	2	712
$\overrightarrow{+}$ $\overrightarrow{-}$ Th-Rt Projected: 509	6 1303	0	0	- 55	43	1399	0	0	(15%)	20	1425	0	0	U	1425	0	0
Right Mitigated: 509	<mark>ہ</mark> 159	1	101	6	6	171	1	107	0%	0	171	1	107	0	171	1	107
Shared	159	0	0	6	0	171	0	0	0%	U	171	0	0	U	171	0	0
_ CLeft	70	1	73	0	_	70	1	76	0%	0	70	1	76	0	70	1	76
G ∽ Lt-Th <u>W/B RTOR:</u>	- 73	0	0	3	0	76	0	0	0%	0	76	0	0	0	76	0	0
O ← Thru Existing: 50%	0.40	2	320	00	07	000	2	346	15%	10	740	2	356	0	740	2	356
$\frac{1}{50} \stackrel{\text{Construct}}{\sim} \text{Th-Rt}$ Projected: 50%	<mark>ہ 640</mark>	0	0	26	27	693	0	0	15%	19	712	0	0	0	712	0	0
Mitigated: 509	6	1	0	_	_		1	0	0%			1	0	_		1	0
Shared	° 119	0	0	5	0	124	0	0	0%	0	124	0	0	0	124	0	0
Critical Volum	oc: North	South	632			North	South	668			North	South	668		North	South	668
Chical Volum		North-South: 632 East-West: 725													North-South: 668 East-West: 788		
	Eds	Total:	1357					1444				Total:	1457		EdSI		1457
		rotal.					Total:					Total.				Total:	
Volume/capacity (v/c) ra			0.952					1.013					1.022				1.022
v/c less ATSAC adjustm	ent:		0.882					0.943					0.952				0.952
Level of Service (LC):		D					E					E				E
											PR	OJE	ЕСТ	IMPA	ΥСТ		
Filename: K:\LDT_LDEV\9903800	Washington & National Lo	we\Documents\T	raffic\Analysis\CM/	ACalc Forms\Addition	onal Intersections			С	hange in	v/c due	to project:		0.009	$\Delta v/c$ after	mitigation:	(0.009
Developed 2005-2007 by Ken Aitchison									•		impacted?		NO		mitigated?		N/A
· · ·									9-	J	1						



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