

**ATTACHMENT NO. 6**

**Park Century School**  
**Transportation Impact Study**

Prepared for:  
Park Century School

October 2018

LA16-2985

# Memorandum

Date: August 9, 2019  
To: Jose Mendivil & Heba El-Guindy (Culver City)  
CC: Paul Jennings and Jennifer Palmer (Park Century School)  
From: John Muggridge (Fehr & Peers)  
Subject: **3939 Landmark Street Transportation Impact Study, October 2018– Public Works Traffic Conditions of Development**

LA17-2985

## Revised Traffic Conditions of Development

The following revisions to the project conditions have been requested and provided by the Culver City Department of Public Works, replacing and adding to what is currently described in the traffic study. Condition 1 below replaces the proposed Washington Boulevard left turn restriping on page 48 of the *3939 Landmark Street Park Century School Transportation Impact Study, October 2018*. Conditions 4, 6 and 7 (which apply during construction) replace the pickup and drop off operation and location described as part of the Construction Traffic Management Program on pages 43 and 44 of the *3939 Landmark Street Park Century School Transportation Impact Study, October 2018*.

Conditions 2, 3 and 5 were not described in the *3939 Landmark Street Park Century School Transportation Impact Study, October 2018* and are new conditions for the project.

1. The Project shall be responsible for designing and restriping the turn lanes and striped center median on Washington Boulevard between Landmark Street and National Boulevard. The restriping shall increase the left-turn lane storage for both westbound Washington Boulevard at Landmark Street and eastbound Washington Boulevard at National Boulevard. The striping shall provide equal lengths of back-to back left-turn storage for both left-turn lanes and associated tapering. The striping plan, form of removal and application of the pavement markings must be approved by the City. In the future, the



- City may restripe this reach of Washington Boulevard to facilitate bicycle traffic or for other future traffic demands.
2. The Project shall provide ADA compliant sidewalk along its whole frontage on Landmark Street, this would involve replacement of the tree at the easterly limit of the project site.
  3. The Project shall improve/replace its existing driveway off Landmark Street to become ADA compliant.
  4. During construction, drop-off and pick-up of students shall take place at the parking stalls abutting to the school site on the south side of Landmark Street. The designated parking meters zone will be temporarily restricted to students' drop-off/pick-up for a maximum period of three hours covering both drop-off and pick-up time periods. Regular operation of the parking meters will continue outside of the drop-off and pick-up periods. The Project shall be responsible to pay for the cost of signs along with all sign removals and installations to accommodate the temporary drop-off/pick-up area, and for any other traffic and parking control devices needed during project construction. The Project shall also be responsible to pay for the lost parking meters revenue for the construction period. The Department of Public Works will determine the amount of lost revenue and apply necessary parking changes prior to beginning the new pick-up and drop-off procedure.
  5. Should immediate use be needed prior to construction of the sidewalk along the project frontage, the Project shall provide safe and ADA compliant path of travel to accommodate the use of the temporary drop-off/pick-up zone on Landmark Street.
  6. In view of the limited number of parking spaces along the frontage of the school site, the Project shall provide trained volunteers and/or school staff to assist with the drop-off/pick-up activities to minimize any potential delays. If feasible, it is also recommended that the Project stagger the start and end times of the school day in order to spread and reduce the peak demand for students' drop-off/pick-up.
  7. Prior to the use of the temporary drop-off/pick-up zone on Landmark Street, the School shall use the school's newsletter and/or other form of communication to inform all parents of the revised drop-off/pick-up zone. Parents must not park in the existing No-Parking zones, and must drive to the end of the cul de sac to return to Washington Boulevard rather than making a three-point turn at any other location on Landmark Street.

## Table of Contents

<b>1. INTRODUCTION .....</b>	<b>6</b>
Project Description.....	6
Study Scope .....	6
Organization Of Report.....	10
<b>2. EXISTING CONDITIONS .....</b>	<b>11</b>
Study Area .....	11
Existing Street System.....	11
Existing Transit Service.....	13
Existing Traffic Volumes and Levels of Service .....	15
Existing Traffic Volumes.....	15
Level of Service Methodology.....	18
Existing Levels of Service .....	20
<b>3. TRAFFIC PROJECTIONS.....</b>	<b>22</b>
Project Traffic.....	22
Project Traffic Generation .....	22
Project Traffic Distribution .....	24
Project Traffic Assignment.....	24
Existing plus Project Traffic Conditions.....	29
Future Base Traffic Conditions.....	29
Areawide Traffic Growth.....	29
Cumulative Project Traffic Generation .....	31
Cumulative Project Trip Distribution and Traffic Assignment .....	31
Future Plus Project Traffic Volumes.....	31
<b>4. TRAFFIC IMPACT ANALYSIS .....</b>	<b>37</b>
Significant Traffic Impact Criteria .....	37
City of Culver City.....	37
City of Los Angeles .....	38

Existing plus Project Impact Analysis.....	38
Existing plus Project Traffic Level of Service.....	38
Existing plus Project Intersection Impacts.....	38
Future Plus Project Impact Analysis.....	40
Future Base Traffic Conditions .....	40
Future Plus Project Traffic Conditions.....	40
Future Plus Project Intersection Impacts.....	40
Traffic Management Program.....	43
Construction Traffic Management Program.....	43
Post-Construction Traffic Management Program .....	43
Simulation Analysis .....	47
<b>5. TRANSPORTATION DEMAND MANAGEMENT AND BICYCLE AND PEDESTRIAN CONNECTIONS</b>	<b>51</b>
Shared Commuting and Transit.....	51
Bicycle Parking.....	51
Existing and Future Bikeways.....	52
<b>6. REGIONAL TRANSPORTATION IMPACT ANALYSIS.....</b>	<b>53</b>
CMP Traffic Impact Analysis .....	53
Criteria for Analysis.....	53
Arterial Monitoring Station Analysis.....	54
Freeway Mainline Monitoring Station Analysis .....	54
Regional Transit Impact Analysis.....	54
<b>7. SUMMARY AND CONCLUSIONS .....</b>	<b>56</b>

## **Appendices**

Appendix A: INTERSECTION TRAFFIC COUNTS

Appendix B: LOS ANALYSIS

Appendix C: MEMORANDUM OF UNDERSTANDING

Appendix D: SIMTRAFFIC RESULTS

## List of Figures

Figure 1 – Study Area and Analyzed Intersections and Street Segments.....	8
Figure 2 – Park Century School Site Plan .....	9
Figure 3 – Existing Transit Service.....	14
Figure 4 – Existing Peak Hour Traffic Volumes .....	16
Figure 5-Project Trip Distribution .....	25
Figure 6–Project Only Peak Hour Traffic Volumes .....	27
Figure 7- Existing plus Project Peak Hour Traffic Volumes.....	30
Figure 8– Location of Related Projects .....	33
Figure 9– Related Project Peak Hour Traffic Volumes .....	34
Figure 10 -Future Base Peak Hour Traffic Volumes.....	35
Figure 11 – Future plus Project Peak Hour Traffic Volumes.....	36
Figure 12 – Location of Temporary Construction Drop-Off and Pick-Up.....	45
Figure 13 – Vehicle Storage Capacity of Parking Area .....	46
Figure 14 - Conceptual Stripping Plan for Extend Westbound Left-Turn Pocket at Washington Boulevard & Landmark Street.....	50

## **List of Tables**

Table 1 – Level of Service Definitions for Signalized Intersections.....	19
Table 2 – Existing Intersection Level of Service.....	21
Table 3– Project Trip Generation Estimates .....	23
Table 4– Cumulative Project Traffic Generation.....	32
Table 5– Existing Plus Project Level of Service.....	39
Table 6 – Future Base Level of Service Analysis .....	41
Table 7– Future Plus Project Level of Service Analysis .....	42
Table 8– Simulation Queue Results.....	49

# 1. INTRODUCTION

This technical report summarizes the results of a traffic study conducted by Fehr & Peers to evaluate the potential traffic impacts of the Park Century School expansion on Landmark Street in the City of Culver City, California.

## PROJECT DESCRIPTION

The proposed project is located at 3939 Landmark Street in Culver City, California. Figure 1 illustrates the location of the proposed project in relation to the surrounding street system and the intersections that were analyzed as part of the development.

The Project will expand the Park Century School by 50 students and eight staff. As part of the project, the school will provide staff with subsidized transit passes to encourage transit use. This is described in more detail in chapter 3. The project traffic will enter the site from the existing driveway on Landmark Street. The site plan is illustrated Figure 2.

## STUDY SCOPE

The scope of work for this study was developed in conjunction with the City of Culver City. The base assumptions and technical methodologies were discussed as part of a detailed Memorandum of Understanding (MOU, signed in January 2018 and updated in October 2018, included in Appendix C). The project is expected to be completed by the year 2019. The analysis of the future year traffic forecast is based on projected conditions in 2019 both with and without the addition of the project traffic. The following traffic scenarios have been developed and analyzed as part of this study:

- Existing (2018) Conditions – The analysis of existing traffic conditions is intended to provide a basis for the remainder of the study. The existing conditions analysis includes a description of the street system serving the site, current traffic volumes, and an assessment of the operating conditions at these locations.
- Existing (2018) plus Project Conditions – This traffic scenario provides projected traffic volumes and an assessment of operating conditions under existing conditions with the addition of project-generated traffic. The impacts of the proposed Project on existing traffic operating conditions were then identified.
- Future Base (2019) Conditions – Future traffic conditions without the proposed project will be developed for the year 2019. The objective of this analysis is to project future traffic growth and

operating conditions that could be expected to result from regional growth and related projects in the vicinity of the project site by 2019.



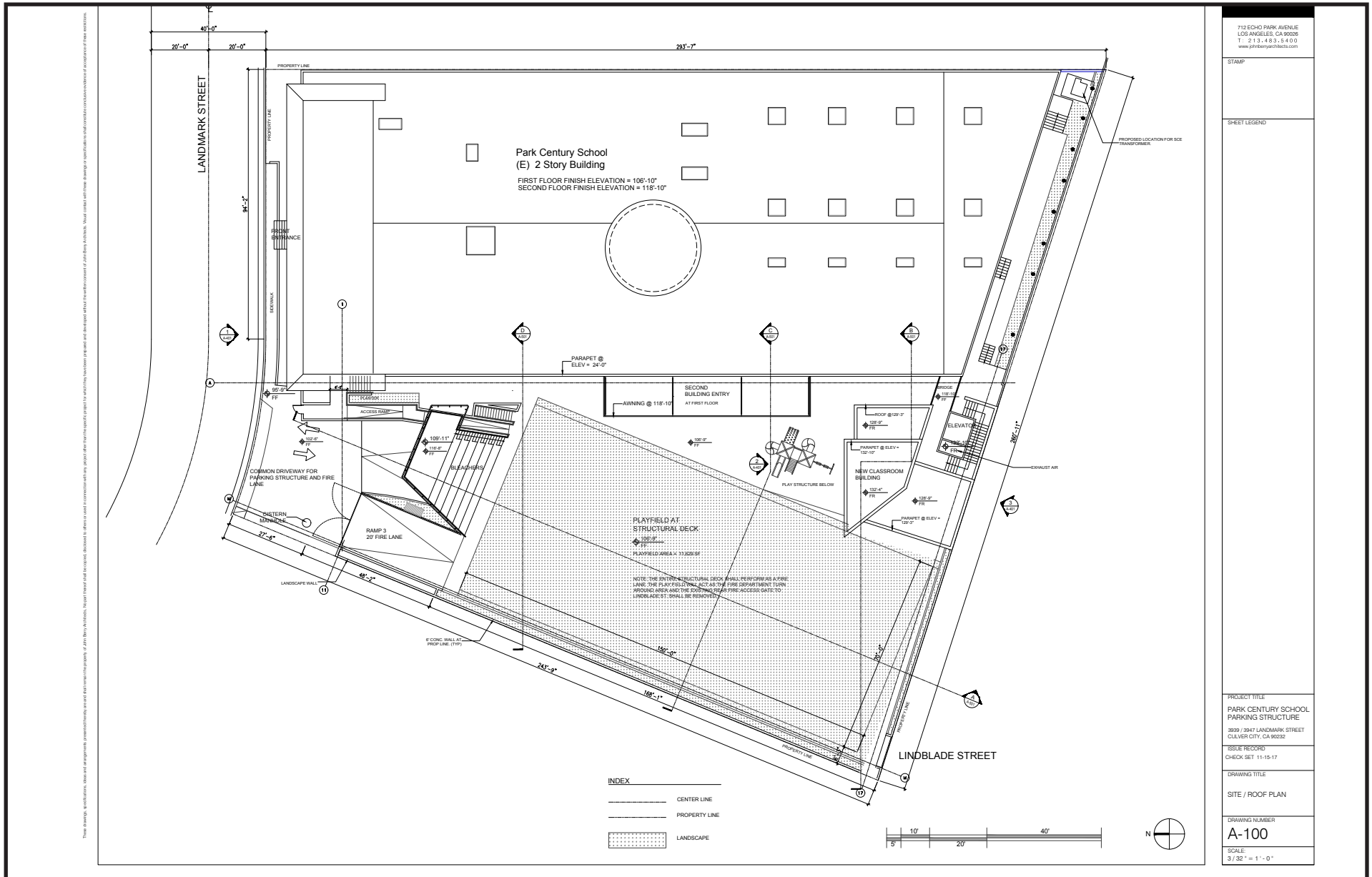


Figure 2  
 Park Century School Site Plan

- Future (2019) plus Project Conditions – This traffic scenario provides projected traffic volumes and an assessment of operating conditions under future conditions with the addition of project-generated traffic. The impacts of the proposed project on future traffic operating conditions can then be identified.

The City of Culver City has identified the following eight intersections to be analyzed as part of the scope of work for this project:

1. Robertson Boulevard/National Boulevard (City of Los Angeles)
2. Venice Boulevard/ National Boulevard (City of Los Angeles)
3. Venice Boulevard/ Robertson Boulevard (City of Los Angeles)
4. Washington Boulevard/National Boulevard (City of Culver City)
5. Washington Boulevard/Landmark Street (City of Culver City)
6. Washington Boulevard/Robertson Boulevard/Higuera Street (City of Culver City)
7. Washington Boulevard/Culver Boulevard/Canfield Street (City of Culver City)
8. Culver Boulevard/Main Street (City of Culver City)

## ORGANIZATION OF REPORT

This report is divided into six chapters, including this introduction. Chapter 2 describes the existing transportation conditions including an inventory of the streets, highways, and transit service in the study area, a summary of traffic volumes, and an assessment of operating conditions. The methodologies used to develop traffic forecasts for the existing, existing plus project, future base, and future plus project scenarios and the forecasts themselves are included in Chapter 3. Chapter 4 presents an assessment of potential intersection traffic impacts of the proposed project under both existing and future conditions. A discussion of Transportation Demand Management strategies and active transportation connections is provided in Chapter 5. A regional transportation impact assessment is included in Chapter 6. Chapter 7 contains the study conclusions. Appendices to this report include details of the technical analysis.

## 2. EXISTING CONDITIONS

A comprehensive data collection effort was undertaken to develop a detailed description of existing conditions in the study area. The assessment of conditions relevant to this study includes a description of the study area, an inventory of the local street system in the vicinity of the project site, a review of traffic volumes on these facilities, an assessment of the resultant operating conditions, and the current transit service in the study area. A detailed description of these elements is presented in this chapter.

### STUDY AREA

The proposed project is located at 3939 Landmark Street in Culver City, California. The project traffic will enter the site from the existing driveway on Landmark Street. The study area for this analysis is roughly bounded by Venice and National Boulevards on the north, Washington Boulevard on the south, National Boulevard on the east, and by Main Street on the west.

### EXISTING STREET SYSTEM

Washington Boulevard provides direct access to the site. Primary regional access to the site is provided by I-10. The following is a brief description of the streets that serve the site:

#### **Freeway**

- Santa Monica Freeway (I-10) – The Santa Monica Freeway runs east/west approximately a half mile north of the Project Site. Access to the Santa Monica Freeway can be obtained via interchanges at Robertson Boulevard, Venice Boulevard, La Cienega Boulevard, and Washington Boulevard.

#### **Primary Arterials**

- Venice Boulevard – Venice Boulevard is State Route 187 in the study area and provides six travel lanes, three per direction, with a raised median. Restricted and unrestricted parking is available on both sides of the street in the study area. The posted speed limit is 35 miles per hour (mph).
- Washington Boulevard – Washington Boulevard is a major east/west arterial that provides four travel lanes, two per direction, with a raised median near the Project Site. Restricted and metered parking is available on both sides of the street in the study area. The posted speed limit is 35 mph.
- Culver Boulevard – Culver Boulevard is a major east/west arterial that provides four travel lanes, two per direction, with a raised median. Restricted and metered parking is available on both sides of the street in the study area. The posted speed limit is 35 mph.

- Robertson Boulevard – Robertson Boulevard is a north/south road that has on- and off-ramps to the I-10 freeway in the study area. It provides four travel lanes, two per direction. Restricted parking is allowed on one side of the street in the study area. South of Washington Boulevard, the street is renamed Higuera Street and has two travel lanes, one in each direction.
- National Boulevard – National Boulevard is an east/west arterial that provides four travel lanes, two per direction, near the Project Site. Restricted parking is typically allowed on both sides of the street west of Washington Boulevard. The posted speed limit is 35 mph. West of Robertson Boulevard, the street has two travel lanes, one in each direction.

#### **Collector/Local Streets**

- Main Street – Main Street is a north/south collector that provides one travel lane in each direction. Restricted parking is available on both sides of the street.
- Landmark Street – Landmark Street is an east/west cul-de-sac that provides one travel lane in each direction. Restricted parking is available on both sides of the collector.

Diagrams of the existing and future lane configurations at each of the eight analyzed intersections are provided in Figure 4.

## EXISTING TRANSIT SERVICE

One rail line and six bus lines currently serve the study area. These transit lines are described below and illustrated in Figure 3:

- Culver City Bus Line 1 – Line 1 is a local east/west line that runs along Washington Boulevard from Venice Beach in the west to Washington and Fairfax in the east. This line travels along Washington Boulevard in the study area. The route travels along Washington Boulevard in the study area.
- Culver City Bus Line 5 – Line 5 is a local east/west line that runs from Blair Hills in the east to Washington and Inglewood Boulevards in the west. This line travels along Washington Boulevard, Braddock Drive and Higuera Street in the study area. Line 5 only operates when school is in session during AM and PM peak hours. The route travels along Washington Boulevard in the study area.
- Culver City Bus Line 7 – Line 7 is a local east/west line that runs from Venice Boulevard and Culver Boulevard in the east to Marina Del Rey in the west. This line travels primarily along Culver Boulevard and Washington Boulevard in the study area.
- Metro Expo Line – The Expo Line is an east/west light rail line running from downtown Santa Monica to downtown Los Angeles. The study area is served by Culver City Station.
- Metro Line 17 – Line 17 is an east/west line that travels from Culver City to Downtown Los Angeles. This line serves Culver City and Cheviot Hills. This line travels along Robertson Boulevard in the study area.
- Metro Line 33 and Line 733 – Line 33/Line 733 is an east/west line that travels from downtown Los Angeles to Santa Monica. This line provides service to Union Station. This line travels along Venice Boulevard in the study area.
- LADOT Commuter Express Line 437 – Line 437 is a north/south commuter express line that travels from downtown Los Angeles to Venice. This line also serves Culver City and Marina Del Rey. This line travels along Robertson Boulevard and Culver Boulevard in the study area. Line 437 operates on weekdays only.
- Santa Monica Big Blue Bus Line 17 – Line 17 travels from the Culver City Expo Station to UCLA. This line serves Culver City, Palms, and Sawtelle. This line travels along Palms Boulevard in the study area.

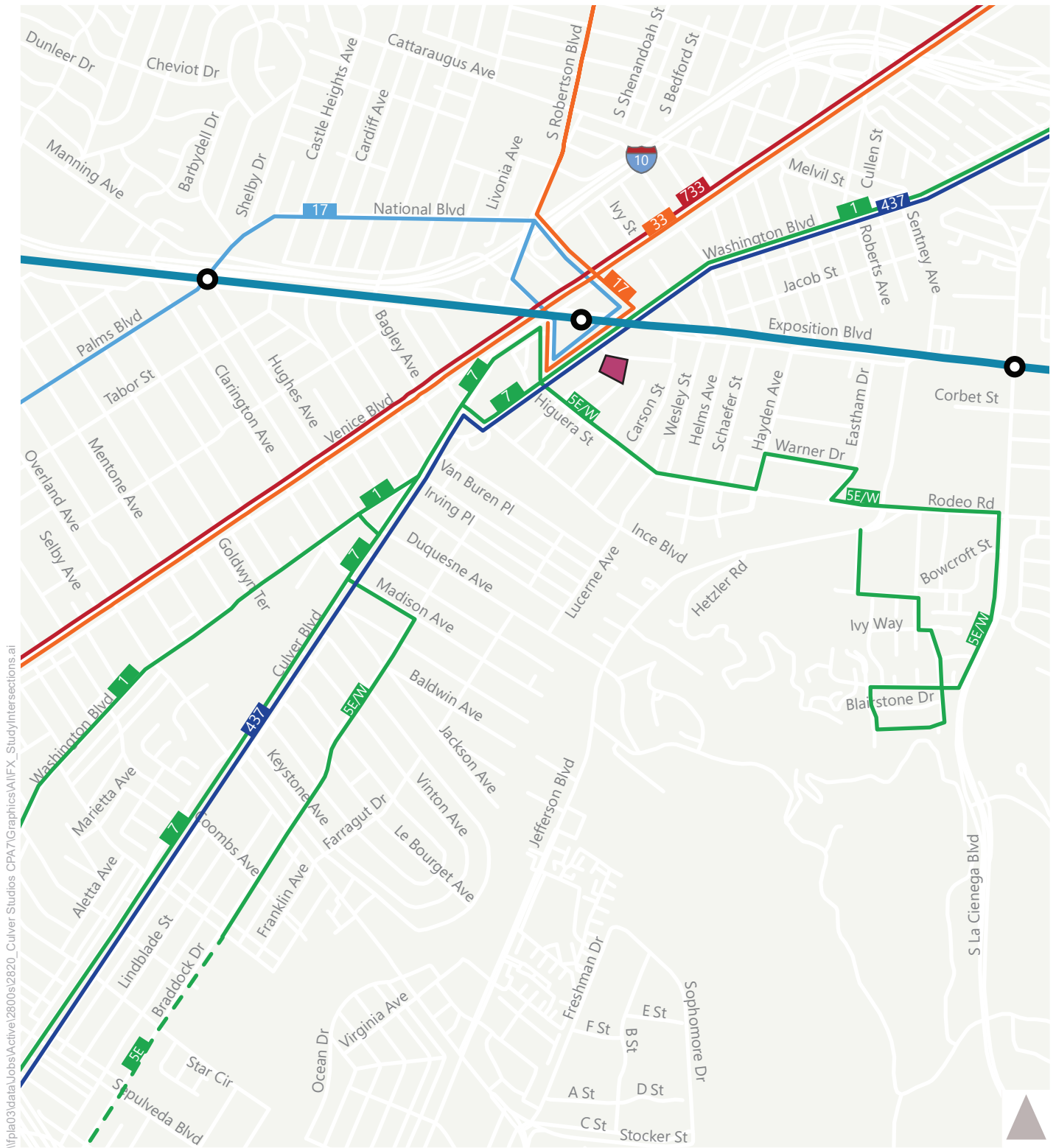


Figure 3  
Existing Transit Service

## EXISTING BICYCLE AND PEDESTRIAN FACILITIES

The project site is served by dedicated bicycle infrastructure within the study area. A Class I facility runs along Exposition Boulevard west of the project site, and National Boulevard east of the project site. Venice Boulevard has a Class II facility. All of the streets immediately bordering the project site and nearly all of the other streets in the vicinity include sidewalks, facilitating pedestrian movement. Marked crosswalks are present at most intersections in the study area. Pedestrian walk phases are either automatically provided at the intersections or are actuated by pedestrian push-buttons.

## EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

This section presents the existing peak hour turning movement traffic volumes for each of the intersections analyzed in the study, describes the methodology used to assess the traffic conditions at each intersection, and analyzes the resulting operating conditions at each, indicating volume/capacity ratios and levels of service. Traffic counts are provided in Appendix A.

### EXISTING TRAFFIC VOLUMES

Weekday morning, midday, and evening peak hour traffic counts were conducted at eight analyzed intersections in January 2018. Driveway counts were counted in October 2017. The existing weekday traffic volumes are illustrated in Figure 4.



1. Robertson Bl/National Bl	2. National Bl/Venice Bl	3. Robertson Bl/Venice Bl	4. National Bl/Washington Bl
<div>Robertson Bl</div> <div> <p>134 (189) 859 (898) 526 (630)</p> <p>473 (286) 433 (263) 160 (94)</p> </div> <div>National Bl</div> <div> <p>245 (126) 508 (916) 237 (90)</p> <p>72 (35) 687 (443) 57 (104)</p> </div>	<div>National Bl</div> <div> <p>104 (72) 438 (635) 70 (125)</p> <p>75 (57) 1,136 (1,404) 52 (65)</p> </div> <div>Venice Bl</div> <div> <p>174 (222) 1,391 (1,533) 327 (217)</p> <p>281 (236) 673 (541) 38 (117)</p> </div>	<div>Robertson Bl</div> <div> <p>395 (390) 330 (162) 250 (188)</p> <p>191 (176) 1,355 (1,615) 47 (71)</p> </div> <div>Venice Bl</div> <div> <p>369 (285) 1,602 (1,655) 87 (86)</p> <p>139 (79) 437 (347) 43 (152)</p> </div>	<div>National Bl</div> <div> <p>78 (63) 654 (750) 81 (168)</p> <p>277 (125) 1,145 (540) 242 (160)</p> </div> <div>Washington Bl</div> <div> <p>67 (69) 620 (1,026) 197 (262)</p> <p>165 (186) 668 (679) 44 (170)</p> </div>
5. Landmark St/Washington Bl	6. Robertson Bl/Washington Bl	7. Washington Bl/Culver Bl	8. Main St/Culver Bl
<div>Washington Bl</div> <div> <p>1,316 (681) 107 (67)</p> <p>798 (1,190) 129 (51)</p> </div> <div>Landmark St</div> <div> <p>76 (77) 64 (114)</p> </div>	<div>Robertson Bl</div> <div> <p>63 (56) 270 (244) 133 (93)</p> <p>240 (149) 1,092 (645) 77 (74)</p> </div> <div>Washington Bl</div> <div> <p>79 (163) 713 (950) 85 (92)</p> <p>34 (37) 358 (288) 84 (80)</p> </div>	<div>Washington Bl</div> <div> <p>4 (32)</p> <p>3 (24) 222 (308) 31 (31)</p> </div> <div>Culver Bl</div> <div> <p>24 (15) 732 (871) 755 (1,108)</p> <p>1,198 (729) 107 (29) 72 (92)</p> </div>	<div>Main St</div> <div> <p>152 (199) 0 (0) 93 (220)</p> <p>100 (71) 1,322 (981) 1 (5)</p> </div> <div>Culver Bl</div> <div> <p>210 (111) 1,430 (1,760)</p> <p>0 (0) 0 (2) 1 (0)</p> </div>

Figure 4

Peak Hour Traffic Volumes and  
Lane Configurations  
Existing (2017) Volumes- AM(PM)





## LEVEL OF SERVICE METHODOLOGY

Level of service (LOS) is a qualitative measure used to describe the condition of traffic flow on the street system, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. LOS D is typically recognized as the minimum acceptable level of service in urban areas. Level of Service definitions for signalized intersections are provided in Table 1. All of the eight of the LOS-analyzed intersections are signalized.

Per the City of Culver City's requirements, Intersection Capacity Utilization (ICU) methodology was used to determine the intersection volume-to-capacity (V/C) ratio and corresponding LOS for the five signalized study intersections entirely in the City of Culver City.

The City of Los Angeles requires the use of Critical Movement Analysis (CMA) methodology (Transportation Research Circular No. 212, Interim Materials on Highway Capacity [Transportation Research Board, 1980]) to evaluate the operations of intersections and this methodology was used to analyze the study locations in the City of Los Angeles. The CMA method of intersection capacity analysis determines the intersection V/C ratio and corresponding LOS for the turning movements and intersection characteristics at signalized intersections. The CALCADB software package developed by LADOT was used to implement the CMA methodology at the three study intersections under City of Los Angeles jurisdiction.

**TABLE 1**  
**LEVEL OF SERVICE DEFINITIONS**  
**FOR SIGNALIZED INTERSECTIONS**

Level of Service	Intersection Capacity Utilization	Definition
A	0.000-0.600	EXCELLENT. No Vehicle waits longer than one red light and no approach phase is fully used
B	0.601-0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles
C	0.701-0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles
D	0.801-0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume period occur to permit clearing of developing lines, preventing excessive backups
E	0.901-1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long line of waiting vehicles through several signal cycles
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths

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

The City of Los Angeles' Automated Traffic Surveillance and Control (ATSAC) system is a computer-based traffic signal control system that monitors traffic conditions and system performance to allow ATSAC-operations to manage signal timing to improve traffic flow conditions. The Adaptive Traffic Control System (ATCS) is an enhancement to ATSAC and provides fully traffic-adaptive signal control based on real-time traffic conditions. All signalized study intersections under City of Los Angeles jurisdiction are currently operating under the City's ATSAC system and ATCS system. ATSAC and ATCS provide improved operating conditions. In accordance with established City of Los Angeles procedures, a 0.07 V/C reduction was applied at each intersection where ATSAC is implemented and an additional 0.03 V/C reduction was applied at each intersection where ATCS is implemented.

The City of Culver City has a similar traffic control signal system at all intersections in Culver City. A 0.07 V/C reduction was applied at each intersection analyzed in Culver City.

## EXISTING LEVELS OF SERVICE

The traffic volumes presented in Figure 4 were analyzed using the methodologies described above to determine the current operating conditions at the eight analyzed intersections. Table 2 summarizes the Existing Year 2018 LOS analysis results. As shown in the table, none of the intersections are currently operating at poor levels of service, i.e., LOS E or F.

Detailed LOS calculation worksheets are presented in Appendix B.

**TABLE 2**  
**EXISTING INTERSECTION LEVEL OF SERVICE**

ID	N/S Street Name	E/W Street Name	Jurisdiction	Analysis Methodology	Analyzed Period	Existing	
						V/C or Delay	LOS
1	Robertson Boulevard	National Boulevard	City of Los Angeles	CMA	AM	0.874	D
					PM	0.786	C
					MD	0.729	C
2	National Boulevard	Venice Boulevard	City of Los Angeles	CMA	AM	0.677	B
					PM	0.758	C
					MD	0.692	B
3	Robertson Boulevard	Venice Boulevard	City of Los Angeles	CMA	AM	0.776	C
					PM	0.759	C
					MD	0.644	B
4	National Boulevard	Washington Boulevard	City of Culver City	ICU	AM	0.668	B
					PM	0.775	C
					MD	0.741	C
5	Landmark Street	Washington Boulevard	City of Culver City	ICU	AM	0.489	A
					PM	0.510	A
					MD	0.516	A
6	Robertson Boulevard	Washington Boulevard	City of Culver City	ICU	AM	0.802	D
					PM	0.640	B
					MD	0.582	A
7	Washington Boulevard	Culver Boulevard	City of Culver City	ICU	AM	0.791	C
					PM	0.637	B
					MD	0.540	A
8	Main Street	Culver Boulevard	City of Culver City	ICU	AM	0.664	B
					PM	0.722	C
					MD	0.636	B



### 3. TRAFFIC PROJECTIONS

#### PROJECT TRAFFIC

The development of trip generation estimates for the proposed Project is a 3-step process: trip generation, trip distribution, and traffic assignment.

#### PROJECT TRAFFIC GENERATION

As indicated in Chapter 1, the proposed project will expand the Park Century School by 50 students and eight staff. The project traffic will enter the site from the existing driveway on Landmark Street.

Table 3 presents the trip rates used to estimate trip generation for Park Century School. Trip generation was based on counts taken at the driveway in the fall of 2017. Vehicles were classified as either staff trips or students trips based on if a student was present in the car when either entering (in the AM) or exiting (in the midday and PM periods) the school. In addition, staff trip generation rates incorporated 10 parking spaces that the school currently rent and provide to teachers at the adjacent parking structure on Landmark Street. Trip generation rates were developed both per student and per staff by dividing the student related trips and the staff related trips by the school's current enrollment and staff size, respectively. Trip rates were developed for staff and students for the morning (7-9 AM), midday (2-4 PM), and evening periods (4-6 PM).

As part of the project, the school plans to provide staff located near transit with subsidized transit passes to encourage transit use. Due to the project's location just one block from the Culver City Expo Line Station and in close proximity to several local, rapid, and express buses, subsidizing transit passes and encouraging staff to walk or bicycle is estimated to reduce staff trips by 10%. This reduction is included in the trip generation. The school is considering other Transportation Demand Management (TDM) efforts that would reduce student related trips, but as these options have not been finalized they are not included in the trip generation.

The project is estimated to generate 62 trips (30 inbound/32 outbound) in the morning peak hour, 38 trips (22 inbound/16 outbound) in midday peak hour, and 19 trips (8 inbound/11 trips outbound) in the evening peak hour.

TABLE 3																
PARK CENTURY SCHOOL TRIP GENERATION																
		AM Total [a]			AM Rate per person		MD Total [b]			MD Rate per person		PM Total [b]			PM Rate per person	
Existing On-site Population	Size	Inbound	Outbound	Total	Inbound	Outbound	Inbound	Outbound	Total	Inbound	Outbound	Inbound	Outbound	Total	Inbound	Outbound
Students [a]	120	71	75	146	0.59	0.63	51	40	91	0.43	0.33	18	26	44	0.15	0.22
Staff [b]	60	49	0	49	0.82	0.00	0	17	17	0.00	0.28	0	16	16	0.00	0.27
Total Existing Trips		120	75	195			51	57	108			18	42	60		
Proposed Project	Size	Inbound	Outbound	Total	Inbound	Outbound	Inbound	Outbound	Total	Inbound	Outbound	Inbound	Outbound	Total	Inbound	Outbound
Students	170	100	107	207	0.59	0.63	73	56	129	0.43	0.33	26	37	63	0.15	0.22
Staff	68	56	0	56	0.82	0.00	0	19	19	0.00	0.28	0	18	18	0.00	0.27
Staff Transit/bike/walk Credit [c]	10%	-6	0	-6			0	-2	-2			0	-2	-2		
Total Proposed Trips		150	107	257			73	73	146			26	53	79		
Net New Trips		30	32	62			22	16	38			8	11	19		

[a] Inbound trips without students are considered staff generated. All other trips are considered student generated. Staff trips also includes 10 parking spaces at adjacent off-site garage.

[b] Outbound trips without students are considered staff generated. All other trips are considered student generated. Staff trips also includes 10 inbound trips from parking spaces at an adjacent off-site garage. Based on based on the driveway counts of outbound trips without students in the MD (12) and PM (11), these 10 trips were split evenly

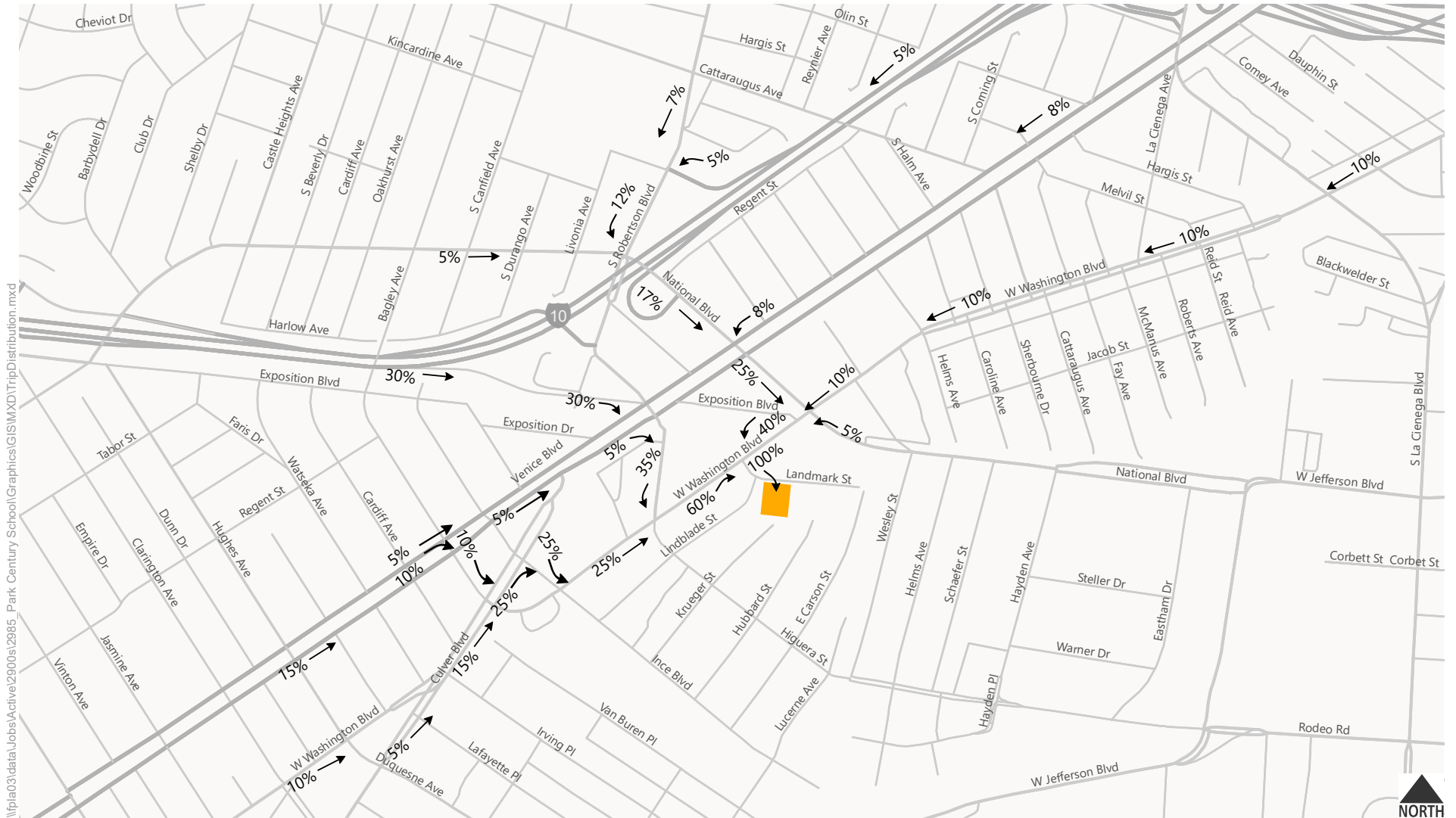
[c] A 10% reduction in staff trips is expected to occur with the initiation of a subsidized transit pass program for staff, and encouraging staff to walk or bike to school.

## PROJECT TRAFFIC DISTRIBUTION

The geographic distribution of the traffic generated by the proposed project depends on several factors. These factors include the geographic distribution of population from which the employees and students of the proposed development are drawn, and the location of the project in relation to the surrounding street system. The general distribution pattern used in this traffic study was developed in consultation with City of Culver City traffic engineering staff during the MOU process and is illustrated in Figure 5. Project traffic will enter the site from the existing driveway on Landmark Street.

## PROJECT TRAFFIC ASSIGNMENT

The traffic expected to be generated by the proposed project was assigned to the street network using the distribution pattern shown in Figure 5. Figure 6 illustrates the assignment of this traffic at each of the eight intersections.



## Legend

 Project Site



Figure 5

Project Trip Distribution (Inbound)









## EXISTING PLUS PROJECT TRAFFIC CONDITIONS

The estimated Project traffic was added to the existing traffic volumes to estimate Existing plus Project traffic volumes. Figure 7 shows turning movement traffic volumes for the Existing plus Project scenario.

## FUTURE BASE TRAFFIC CONDITIONS

In order to evaluate the potential impact of the proposed project on the local street system, it was necessary to develop estimates of future traffic conditions both with and without the project. Future traffic volumes without the project are first estimated, representing the future base conditions. The traffic generated by the proposed project is then estimated and separately assigned to the surrounding street system. The sum of the future base and project-generated traffic represents future plus project traffic conditions.

The future base traffic projections reflect growth in traffic from two primary sources: background or ambient growth in the existing traffic volumes to reflect the effects of overall regional growth both in and outside of the study area, and traffic generated by specific projects in, or in the vicinity of, the study area. These factors are described below.

## AREAWIDE TRAFFIC GROWTH

Culver City Engineering Division staff indicates that traffic volumes in the vicinity of the study area have increased at a rate of about 1.0% per year. Future increases in the background traffic volumes due to regional growth and development are expected to continue at this rate, at least through the year 2019. With the assumed completion date of 2019, the existing baseline 2018 traffic volumes were adjusted upward by a factor of 1.0% for one year to reflect area wide regional growth up to Year 2019.

Source: path: \\wcc\GIS\GIS\Projects\GIS\MapDocs\Intersect1.mxd



1. Robertson BI/National BI	2. National BI/Venice BI	3. Robertson BI/Venice BI	4. National BI/Washington BI
<div>Robertson BI</div> <div> <p>134 (189) 859 (898) 530 (631)</p> <p>475 (287) 435 (264) 160 (94)</p> </div> <div>National BI</div> <div> <p>245 (126) 510 (916) 237 (90)</p> <p>72 (35) 687 (443) 57 (104)</p> </div>	<div>National BI</div> <div> <p>104 (72) 443 (636) 70 (125)</p> <p>75 (57) 1,136 (1,404) 54 (66)</p> </div> <div>Venice BI</div> <div> <p>174 (222) 1,391 (1,533) 327 (217)</p> <p>281 (236) 677 (542) 41 (118)</p> </div>	<div>Robertson BI</div> <div> <p>395 (390) 339 (164) 250 (188)</p> <p>191 (176) 1,355 (1,615) 47 (71)</p> </div> <div>Venice BI</div> <div> <p>369 (285) 1,602 (1,655) 89 (86)</p> <p>141 (80) 445 (350) 43 (152)</p> </div>	<div>National BI</div> <div> <p>86 (65) 654 (750) 81 (168)</p> <p>277 (125) 1,148 (541) 242 (160)</p> </div> <div>Washington BI</div> <div> <p>73 (71) 626 (1,028) 200 (263)</p> <p>167 (186) 688 (679) 44 (170)</p> </div>
5. Landmark St/Washington BI	6. Robertson BI/Washington BI	7. Washington BI/Culver BI	8. Main St/Culver BI
<div>Washington BI</div> <div> <p>1,316 (681) 119 (70)</p> <p>798 (1,190) 147 (56)</p> </div> <div>Landmark St</div> <div> <p>92 (83) 80 (120)</p> </div>	<div>Robertson BI</div> <div> <p>63 (56) 270 (244) 144 (96)</p> <p>250 (152) 1,098 (647) 77 (74)</p> </div> <div>Washington BI</div> <div> <p>79 (163) 721 (952) 85 (92)</p> <p>34 (37) 358 (288) 84 (80)</p> </div>	<div>Washington BI</div> <div> <p>4 (32)</p> <p>3 (24) 222 (308) 31 (31)</p> </div> <div>Culver BI</div> <div> <p>24 (15) 732 (871) 763 (1,110)</p> <p>1,204 (731) 107 (29) 72 (92)</p> </div>	<div>Main St</div> <div> <p>152 (199) 0 (0) 96 (221)</p> <p>102 (72) 1,327 (983) 1 (5)</p> </div> <div>Culver BI</div> <div> <p>210 (111) 1,435 (1,761)</p> <p>0 (0) 0 (2) 1 (0)</p> </div>

Figure 7  
Peak Hour Traffic Volumes  
and Lane Configurations -  
Existing Plus Project Volumes- AM/PM





## CUMULATIVE PROJECT TRAFFIC GENERATION

The second major source of traffic growth in the study area is from specific cumulative development projects, also called related projects, expected to be built in the vicinity of the proposed project site prior to the proposed build-out. Data describing cumulative projects in the area was developed based on information obtained from Culver City, City of Los Angeles, and Los Angeles County. A total of 57 cumulative projects were identified in the study area and are estimated to generate 3,945 trips during the morning peak hour and 5,396 trips during the evening peak hour, as summarized in Table 4. Trip generation estimates for each of the cumulative projects were obtained from Culver City and the Los Angeles Department of Transportation, or developed according to ITE (9<sup>th</sup> Edition) rates. As data for related project trip generation was not available for projects within the City of Los Angeles for the midday period, afternoon peak hour trips were used during the midday period for all related projects to present a more conservative trip generation. Figure 8 displays the location of the related project.

## CUMULATIVE PROJECT TRIP DISTRIBUTION AND TRAFFIC ASSIGNMENT

The geographic distribution of the traffic generated by the cumulative projects is dependent on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of population from which the employees and potential patrons of the proposed developments are drawn, and the location of the employment and commercial centers to which residents of residential projects would be drawn, and the location of the projects in relation to the surrounding street system. When trip distribution was not available for a cumulative project, it was estimated based on the factors described above.

The trip generation estimates were assigned to the local street system using the trip distribution pattern described above. Figure 9 shows the traffic generated from the cumulative projects at the study intersections. These volumes were then added to the existing baseline traffic volumes after the adjustment for area-wide growth to create the Future Base condition, as illustrated in Figure 10. These volumes represent future conditions without the proposed project.

## FUTURE PLUS PROJECT TRAFFIC VOLUMES

The project-generated traffic volumes from Figure 6 were added to the future base traffic volumes presented in Figure 10 to develop Future plus Project peak hour traffic volumes illustrated in Figure 11.

TABLE 4  
PARK CENTURY SCHOOL PROJECT  
RELATED PROJECTS

No.	Project Location	City	Land Use	ITE Land Use Code	Size	Estimated Trip Generation									
						Daily Trips	AM Peak Hour Trips			MD Peak Hour Trips			PM Peak Hour Trips		
						In	Out	Total	In	Out	Total	In	Out	Total	
1	10612 W National Blvd	City of Los Angeles [a]	Coffeshop		1,726ksf	636	42	42	84	15	16	31	15	16	31
2	3417 S Motor Ave	City of Los Angeles [a]	Retail		2ksf	0	8	34	42	30	20	50	30	20	50
3	10601 Washington Blvd	City of Los Angeles [a]	Apartments		85Units										
			Apartments		126Units										
			Office		23ksf										
			Retail		9ksf										
			Other		4.5ksf										
			Other		4.5ksf										
4	9815 W National Blvd	City of Los Angeles [a]	Office		10.1ksf										
5	3221 S La Cienega Blvd	City of Los Angeles [a]	Gas Station		12 fueling positions	977	30	31	61	52	53	105	52	53	105
6	8900 W Venice Blvd	City of Los Angeles [a]	Mixed-Use			10,136	319	418	737	467	382	849	467	382	849
7	9300 W Pico Blvd	City of Los Angeles [a]	Apartments		64Units	4,124	173	83	256	127	174	301	127	174	301
			Other		99,680ksf										
			Other		8,269ksf	505	0	0	32	0	0	49	0	0	49
			Retail		1,637ksf										
			Other												
			Apartments		86Units	430	-5	25	20	41	18	59	41	18	59
8	10801 W Venice Blvd	City of Los Angeles [a]	Mixed-Use			543	9	33	42	32	18	50	32	18	50
9	3822 S Dunn Dr	City of Los Angeles [a]	Apartments			579	-3	35	32	31	11	42	31	11	42
10	10375 W Washington Blvd	City of Los Angeles [a]	Mixed-Use			716	65	13	78	23	58	81	23	58	81
11	5950 W Jefferson Blvd	City of Los Angeles [a]	Office		70ksf	530	30	17	47	17	16	33	17	16	33
12	1434 W Robertson Blvd	City of Los Angeles [a]	Hotel		112Rooms										
13	6132 W Pico Blvd	City of Los Angeles [a]	Retail		1.4ksf	807	5	34	39	47	30	77	47	30	77
			Apartments		100Units										
			Apartments		72Units										
14	5181 W Adams Blvd	City of Los Angeles [a]	Apartments		72Units	3,951	59	62	121	173	172	345	173	172	345
15	1500 S Hi Point St	City of Los Angeles [a]	Retail		33,860ksf										
			Apartments		45Units	300	5	18	23	18	10	28	18	10	28
			Apartments		45Units	300	5	18	23	18	10	28	18	10	28
			Retail		23,795ksf	1,589	67	47	114	57	60	117	57	60	117
			Office		25,032ksf	187	0	31	0	0	29	0	0	29	
			Apartments		60Units	584	10	35	45	39	23	62	39	23	62
19	5930 W Sawyer St	City of Los Angeles [a]	Apartments			83	45	48	93	44	43	87	44	43	87
20	10638 Culver Blvd	City of Culver City [b]	Convenience Store	945	2,676ksf										
21	5950 Stoneview Dr	City of Culver City [b]	Park	412	4acres	22	2	3	5	1	1	2	1	1	2
			Office	710	4,000ksf										
22	11198 Washington Place	City of Culver City [b]	Restaurant	820	3,850ksf	553	26	27	53	26	17	43	26	17	43
23	11917 Washington Place	City of Culver City [b]	Convenience Store	852	2,500ksf	78	42	44	86	42	40	82	42	40	82
			Museum	580	12,596ksf										
24	10808 Culver Blvd	City of Culver City [b]	Armory/mini-warehouse	151	-12,596ksf	-31	2	-11	-9	-1	0	-1	-1	0	-1
25	3837 Bentley Ave	City of Culver City [b]	Condominium	231	2Units	12	0	1	1	1	0	1	1	0	1
26	4109-41111 Duquesne Ave	City of Culver City [b]	Apartments	220	2Units	13	0	1	1	1	0	1	1	0	1
27	9355 Culver Blvd	City of Culver City [b]	Retail	820	2,947ksf	152	2	5	7	7	6	13	7	6	13
			Apartments	220	4Units										
28	4044-4068 Globe Avenue	City of Culver City [b]	Apartments	220	10Units	133	2	11	13	8	5	13	8	5	13
			Single Family Homes	210	7Homes										
29	11224 Venice Blvd	City of Culver City [b]	Automated Car Wash [c]	948	0,864ksf	76	42	2	44	44	43	87	44	43	87
30	4241 Duquesne Ave	City of Culver City [b]	Convenience Store	852	2,285ksf										
31	4034 La Salle Ave	City of Culver City [b]	Condominium	231	2Units	12	0	1	1	1	0	1	1	0	1
32	4034 La Salle Ave	City of Culver City [b]	Condominium	231	3Units	17	0	1	1	1	1	2	1	1	2
33	3961 Tilden Ave	City of Culver City [b]	Condominium	231	2Units	12	0	1	1	1	0	1	1	0	1
34	10799 Washington Blvd	City of Culver City [b]	Restaurant	932	2,000ksf	254	12	10	22	12	8	20	12	8	20
35	8509 Higuera, 8476 Warner	City of Culver City [b]	School [d]	534	100students	162	50	40	90	28	32	60	28	32	60
36	3873 Bentley Ave	City of Culver City [b]	Condominium	231	2Units	12	0	1	1	1	0	1	1	0	1
37	4180 Duquesne Ave	City of Culver City [b]	Condominium	231	3Units	17	0	1	1	1	1	2	1	1	2
38	3832 Bentley Ave	City of Culver City [b]	Condominium	231	3Units	17	0	1	1	1	1	2	1	1	2
39	3030 La Cienega Blvd	City of Culver City [b]	Retail	820	1,250ksf	53	1	0	1	2	3	5	2	3	5
40	9919 Jefferson Blvd	City of Culver City [b]	Office	710	62,558ksf	208	26	4	30	5	24	29	5	24	29
41	10000 Washington Blvd	City of Culver City [b]	Office	710	-1,497ksf										
			Retail	820	12,100ksf	512	7	5	12	21	23	44	21	23	44
42	9300 Culver Blvd	City of Culver City [b]	Retail	820	118,000ksf	5,039	70	43	113	210	228	438	210	228	438
43	8511 Warner Dr	City of Culver City [b]	Retail/Restaurant	820	51,520ksf	2,200	31	18	49	92	99	191	92	99	191
44	3434 Wesley St	City of Culver City [b]	Apartments	220	15Units	147	8	14	22	7	9	16	7	9	16
45	4227 Ince Blvd	City of Culver City [b]	Office	1710	14,237ksf										
			Apartments	220	5Units	33	1	2	3	2	1	3	2	1	3
46	3727 Robertson Blvd	City of Culver City [b]	Office	710	6ksf	-3	0	-3	-3	0	0	0	0	0	0
			Office	710	-6.8ksf										
47	12803 Washington Blvd	City of Culver City	Apartments	220	37Units	554	8	19	27	28	22	50	28	22	50
48	3355-3361 South Overland Ave	City of Los Angeles [a]	Retail	820	7,206ksf										
			Apartments	220	41Units	238	3	15	18	14	7	21	14	7	21
49	8824 National Blvd	City of Culver City [b]	Hotel	310	148Rooms										
			Retail	820	57,742ksf	5,768	195	156	351	235	297	532	235	297	532
			Office	710	196,333ksf										
50	3814 Lenawee Ave	City of Culver City [b]	Apartments	220	200units										
			Apartments	220	8units	403	8	91	99	19	12	31	19	12	31
51	8888 Washington Blvd	City of Culver City [b]	Assisted Living	254	95units										
			Office	710	56,559ksf	443	27	7	34	15	33	48	15	33	48
52	8777 Washington Blvd	City of Culver City [b]	Retail	820	5,972ksf										
			Office	1710	128,000ksf	617	57	10	67	18	58	76	18	58	76
53	9336 Washington Blvd/Culver Studio	City of Culver City [b]	Retail	820	4,500ksf										
			Active Production Support (Office)	710	206,563ksf	3,013	259	187	446	69	305	374	69	305	374
54	9735 Washington Blvd	City of Culver City [b]	Passive Production Support	150	206,563ksf										
			Office	710	55,477ksf										
55	9735 Washington Blvd	City of Culver City [b]	Retail	820	12,249ksf										
			High-Turnover Restaurant	932	2,147ksf	1,101	26	7	33	47	52	99	47	52	99
56	4051 and 4055 Jackson Ave	City of Culver City [b]	Quality Restaurant	931	2,000ksf										
			Bank and Office	710	-16.2ksf										
57	4051 and 4055 Jackson Ave	City of Culver City [b]	Condominium	231	3units	17	1	0	1	1	1	2	1	1	2
			Apartments	220	141units										
58	3710 and 3750 Robertson Boulevard	City of Culver City [b]	Office	710	64,200ksf	2,315	56	66	122	107	107	214	107	107	214
			Retail	820	30,042ksf										
59	8700,8710,8740, and 8750 Washington Blvd	City of Culver City [b]	Apartments	220	199units										
			Office	710	17,250ksf	2,607	33	80	113	155	72	227	155	72	227
60	3710 and 3750 Robertson Boulevard	City of Culver City [b]	Restaurant	931	5,000ksf										
			Retail	820	17,750ksf										
61	3568 Motor Ave	City of Los Angeles [a]	Apartments	220	42units	320	4	16	20	18	11	29	18	11	29
			Commercial	820	1.77ksf										
Total						56,416	1,929	1,953	3,945	2,594	2,724	5,396	2,594	2,724	5,396

Note:

ksf = one thousand square feet

[a] Trip generation estimates based on information provided by LADOT.

[b] Project description provided by City of Culver City. Trip generation estimates based on rates found from Trip Generation, 9th Edition, Institute of Transportation Engineers, 2012.

[c] Self-Service Car Wash (ITE 948) Daily Rate used because no Automated Car Wash Daily Rate is unavailable.

[d] Middle School/ Junior High School (ITE 522) used because no Private School Daily Rate is unavailable.

[e] Midday related projects not provided. PM trip generation for midday.

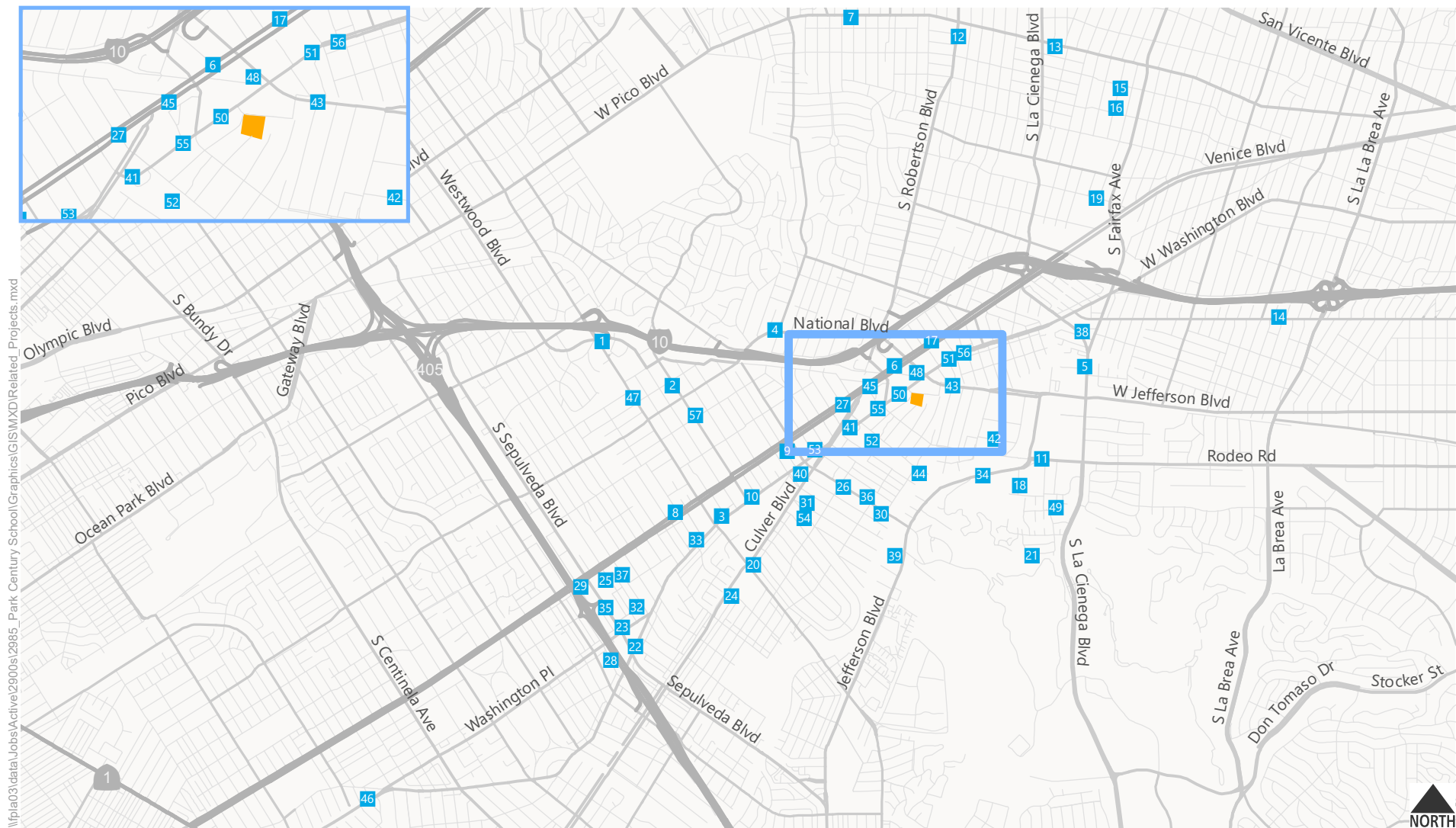


Figure 8

## Park Century School Related Projects





Source: path:  
\\c:\data\2019 Century Schools\GIS\MapDocs\2019\Intersect1.mxd



<b>1. Robertson BI/National BI</b> 	<b>2. National BI/Venice BI</b> 	<b>3. Robertson BI/Venice BI</b> 	<b>4. National BI/Washington BI</b> 
<b>5. Landmark St/Washington BI</b> 	<b>6. Robertson BI/Washington BI</b> 	<b>7. Washington BI/Culver BI</b> 	<b>8. Main St/Culver BI</b> 

Figure 10

Peak Hour Traffic Volumes  
and Lane Configurations  
Future (2019) Volumes- AM(PM)







Source: path:  
\\c0200001\proj\Century School\graphics\CMO\GIS\Intersect\I-10



<p><b>1. Robertson Bl/National Bl</b></p>	<p><b>2. National Bl/Venice Bl</b></p>	<p><b>3. Robertson Bl/Venice Bl</b></p>	<p><b>4. National Bl/Washington Bl</b></p>
<p><b>5. Landmark St/Washington Bl</b></p>	<p><b>6. Robertson Bl/Washington Bl</b></p>	<p><b>7. Washington Bl/Culver Bl</b></p>	<p><b>8. Main St/Culver Bl</b></p>

Figure 11  
Peak Hour Traffic Volumes  
and Lane Configurations -  
Future plus Project Volumes - MD



## 4. TRAFFIC IMPACT ANALYSIS

This section presents an analysis of the projected future volumes to determine the potential traffic impacts of the proposed project on the operating conditions of the surrounding street system. The traffic impact analysis compares the projected LOS at each study intersection under future plus project conditions to the future base conditions to estimate the incremental increase in the V/C ratio caused by the proposed project. This provides the information needed to assess the potential impact of the project using significance criteria established by Culver City and LADOT.

### SIGNIFICANT TRAFFIC IMPACT CRITERIA

The significant impact criteria for the City of Culver City and the City of Los Angeles are described below. Of eight intersections analyzed, five are analyzed exclusively according to Culver City's impact criteria, and three are analyzed exclusively according to the City of Los Angeles' impact criteria. The way are intersections corresponds to their location either within Culver City, City of Los Angeles, or both.

#### CITY OF CULVER CITY

The City of Culver City has established threshold criteria used to determine if a project has a significant traffic impact at an intersection under the City of Culver City jurisdiction. According to the City's criteria, a project impact would be considered significant if the following conditions are met:

LOS	Final V/C Ratio	Project Related Increase in V/C
C	> 0.701 - 0.800	equal to or greater than 0.050
D	> 0.801 - 0.900	equal to or greater than 0.040
E or F	> 0.901	equal to or greater than 0.020

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

## CITY OF LOS ANGELES

LADOT has established threshold criteria to determine whether a project has a significant traffic impact at a specific intersection within the City of Los Angeles jurisdiction. Under the LADOT standard, a project impact would be considered significant if the following conditions are met:

LOS	Final V/C Ratio	Project Related Increase in V/C
C	>0.701 - 0.800	equal to or greater than 0.040
D	> 0.801 - 0.900	equal to or greater than 0.020
E or F	> 0.901	equal to or greater than 0.010

## EXISTING PLUS PROJECT IMPACT ANALYSIS

### EXISTING PLUS PROJECT TRAFFIC LEVEL OF SERVICE

Existing plus Project traffic volumes, presented in Figure 7 were analyzed to determine the projected V/C ratios and LOS for each intersection. Table 5 summarizes the Existing plus Project LOS. None of the study intersections are estimated to operate at LOS E or F during the Existing plus Project scenario.

### EXISTING PLUS PROJECT INTERSECTION IMPACTS

As shown in Table 5, after applying the aforementioned City of Culver City and City of Los Angeles significant impact criteria, there would be no significant impacts at any of the eight study intersections.

**TABLE 5**  
**EXISTING PLUS PROJECT LEVEL OF SERVICE ANALYSIS**

ID	N/S Street Name	E/W Street Name	Jurisdiction	Analysis Methodology	Analyzed Period	Existing		Existing + Project with TDM		Project Increase	Significant Impact?
						V/C or Delay	LOS	V/C or Delay	LOS	In V/C	
1	Robertson Boulevard	National Boulevard	City of Los Angeles	CMA	AM	0.874	D	0.877	D	0.003	NO
					PM	0.786	C	0.786	C	0.000	NO
					MD	0.729	C	0.731	C	0.002	NO
2	National Boulevard	Venice Boulevard	City of Los Angeles	CMA	AM	0.677	B	0.680	B	0.003	NO
					PM	0.758	C	0.758	C	0.000	NO
					MD	0.692	B	0.695	B	0.003	NO
3	Robertson Boulevard	Venice Boulevard	City of Los Angeles	CMA	AM	0.776	C	0.785	C	0.009	NO
					PM	0.759	C	0.760	C	0.001	NO
					MD	0.644	B	0.645	B	0.001	NO
4	National Boulevard	Washington Boulevard	City of Culver City	ICU	AM	0.668	B	0.673	B	0.005	NO
					PM	0.775	C	0.776	C	0.001	NO
					MD	0.741	C	0.744	C	0.003	NO
5	Landmark Street	Washington Boulevard	City of Culver City	ICU	AM	0.489	A	0.499	A	0.010	NO
					PM	0.510	A	0.517	A	0.007	NO
					MD	0.516	A	0.531	A	0.015	NO
6	Robertson Boulevard	Washington Boulevard	City of Culver City	ICU	AM	0.802	D	0.814	D	0.012	NO
					PM	0.640	B	0.642	B	0.002	NO
					MD	0.582	A	0.588	A	0.006	NO
7	Washington Boulevard	Culver Boulevard	City of Culver City	ICU	AM	0.791	C	0.793	C	0.002	NO
					PM	0.637	B	0.638	B	0.001	NO
					MD	0.540	A	0.542	A	0.002	NO
8	Main Street	Culver Boulevard	City of Culver City	ICU	AM	0.664	B	0.669	B	0.005	NO
					PM	0.722	C	0.722	C	0.000	NO
					MD	0.636	B	0.638	B	0.002	NO



## FUTURE PLUS PROJECT IMPACT ANALYSIS

### FUTURE BASE TRAFFIC CONDITIONS

The 2019 Future Base peak hour traffic volumes were analyzed to determine the projected V/C ratio and LOS for each of the analyzed intersections. Table 6 summarizes the future levels of service. Poor operating conditions (LOS E or F) are projected at three of the eight study intersections during at least one of the analyzed peak hours, including:

1. Robertson Boulevard and National Boulevard (City of Los Angeles, AM peak hour)
3. Robertson Boulevard and Venice Boulevard (City of Los Angeles, AM peak hour)
6. Robertson Boulevard and Washington Boulevard (City of Culver City, AM peak hour)

### FUTURE PLUS PROJECT TRAFFIC CONDITIONS

The results of the Future plus Project analysis, presented in Table 7, indicate that poor operating conditions (LOS E or F) are projected at three of the eight study intersections during at least one of the analyzed peak hours, including:

1. Robertson Boulevard and National Boulevard (City of Los Angeles, AM peak hour)
3. Robertson Boulevard and Venice Boulevard (City of Los Angeles, AM peak hour)
6. Robertson Boulevard and Washington Boulevard (City of Culver City, AM peak hour)

### FUTURE PLUS PROJECT INTERSECTION IMPACTS

As shown in Table 7, after applying the aforementioned City of Culver City and City of Los Angeles significant impact criteria, the proposed project does not significantly impacts traffic at any of the study intersections under Future plus Project conditions.

**TABLE 6  
FUTURE BASE LEVEL OF SERVICE ANALYSIS**

ID	N/S Street Name	E/W Street Name	Jurisdiction	Analysis Methodology	Analyzed Period	Cumulative	
						V/C or Delay	LOS
1	Robertson Boulevard	National Boulevard	City of Los Angeles	CMA	AM	0.936	E
					PM	0.858	D
					MD	0.800	D
2	National Boulevard	Venice Boulevard	City of Los Angeles	CMA	AM	0.781	C
					PM	0.888	D
					MD	0.832	D
3	Robertson Boulevard	Venice Boulevard	City of Los Angeles	CMA	AM	0.935	E
					PM	0.873	D
					MD	0.799	C
4	National Boulevard	Washington Boulevard	City of Culver City	ICU	AM	0.768	C
					PM	0.862	D
					MD	0.827	D
5	Landmark Street	Washington Boulevard	City of Culver City	ICU	AM	0.530	A
					PM	0.591	A
					MD	0.595	A
6	Robertson Boulevard	Washington Boulevard	City of Culver City	ICU	AM	0.911	E
					PM	0.776	C
					MD	0.667	B
7	Washington Boulevard	Culver Boulevard	City of Culver City	ICU	AM	0.822	D
					PM	0.693	B
					MD	0.595	A
8	Main Street	Culver Boulevard	City of Culver City	ICU	AM	0.694	B
					PM	0.760	C
					MD	0.673	B

**TABLE 7  
FUTURE PLUS PROJECT LEVEL OF SERVICE ANALYSIS**

ID	N/S Street Name	E/W Street Name	Jurisdiction	Analysis Methodology	Analyzed Period	Future		Future + Project with TDM		Project Increase In V/C	Significant Impact?
						V/C or Delay	LOS	V/C or Delay	LOS		
1	Robertson Boulevard	National Boulevard	City of Los Angeles	CMA	AM	0.936	E	0.939	E	0.003	NO
					PM	0.858	D	0.858	D	0.000	NO
					MD	0.800	D	0.802	D	0.002	NO
2	National Boulevard	Venice Boulevard	City of Los Angeles	CMA	AM	0.781	C	0.784	C	0.003	NO
					PM	0.888	D	0.889	D	0.001	NO
					MD	0.832	D	0.835	D	0.003	NO
3	Robertson Boulevard	Venice Boulevard	City of Los Angeles	CMA	AM	0.935	E	0.944	E	0.009	NO
					PM	0.873	D	0.874	D	0.001	NO
					MD	0.799	C	0.800	C	0.001	NO
4	National Boulevard	Washington Boulevard	City of Culver City	ICU	AM	0.768	C	0.775	C	0.007	NO
					PM	0.862	D	0.862	D	0.000	NO
					MD	0.827	D	0.831	D	0.004	NO
5	Landmark Street	Washington Boulevard	City of Culver City	ICU	AM	0.530	A	0.540	A	0.010	NO
					PM	0.591	A	0.595	A	0.004	NO
					MD	0.595	A	0.609	B	0.014	NO
6	Robertson Boulevard	Washington Boulevard	City of Culver City	ICU	AM	0.911	E	0.923	E	0.012	NO
					PM	0.776	C	0.779	C	0.003	NO
					MD	0.667	B	0.674	B	0.007	NO
7	Washington Boulevard	Culver Boulevard	City of Culver City	ICU	AM	0.822	D	0.824	D	0.002	NO
					PM	0.693	B	0.694	B	0.001	NO
					MD	0.595	A	0.599	A	0.004	NO
8	Main Street	Culver Boulevard	City of Culver City	ICU	AM	0.694	B	0.698	B	0.004	NO
					PM	0.76	C	0.760	C	0.000	NO
					MD	0.673	B	0.675	B	0.002	NO



## TRAFFIC MANAGEMENT PROGRAM

During the MOU process, Culver City staff directed the project to include a Traffic Management Program (TMP), including a discussion of staggered pick-up and drop-off times and pick-up/drop-off procedures. The TMP is meant to address pick-up/drop-off during construction and after construction is complete. Each plan is discussed below.

### CONSTRUCTION TRAFFIC MANAGEMENT PROGRAM

During construction, the school's parking lot will be temporarily closed both as part of the construction itself and in order to stage construction equipment. To accommodate this change, vehicles dropping off or picking up students would drive to the end of Landmark Street, and then turn around at the end of the street, and drop-off or pick-up students on the north side of the street across from the school. During construction, parking would be temporarily prohibited at the four metered-parking spaces on the north side of Landmark Street to allow vehicles to pick-up and drop-off students without block traffic. Parking would need to be prohibited between 7:00 AM (45 minutes before school starts) and 8:00 AM in the morning, and 2:30 PM (30 minutes before schools ends) and 3:30 PM in the afternoon. Students would cross Landmark Street with the assistance of a crossing guard to enter/exit vehicles. The school agrees to the training and placing a crossing guard temporarily during construction.

The parking meter zone could temporarily be restricted to pickups and drop-offs during their relevant hours, and metered parking outside school pick-up/drop-off times could continue. Figure 12 indicates the location of the four metered parking spaces that would be required for the temporary pick-up/drop-off space. It is assumed that students, with the assistance of a crossing guard, would cross the street to enter/exit their vehicles. By having pick-ups and drop-offs occur on the north side of the street when vehicles are traveling west on Landmark Street, any queuing that would result from pick-ups and drop-offs would not affect operations at the intersection of Washington Boulevard & Landmark Street. Based on conversations with City staff, the cost of temporarily restricting parking on Landmark Street for the three months of construction taking place during the school year is \$1,679.39. This includes signage installation, permit costs, and lost revenue from the meter. The school agrees to cover this cost. The school also agrees to contact affected businesses at The Platform to inform them of the temporary use of the parking meters for pick up and drop off, and ask these businesses to contact the City or send the City their input.

### POST-CONSTRUCTION TRAFFIC MANAGEMENT PROGRAM

City staff had concerns about the potential for queuing from early arrivals before the gates are open before and after school. According to conversations with school staff, the parking lot gate currently opens at

7:00 AM, 45 minutes before school starts in the morning. The gate closes at 8:30 AM and then reopens at 2:30 PM, 30 minutes before schools ends. Field observations made in fall 2017 did not reveal queuing before the gate opens to be a problem for traffic operations. Staggered drop-offs would not be needed once the gate opens, as the new parking lot will have storage space for up to 33 vehicles, which is far greater than the number of vehicles observed at the school at any one time.

Figure 13 shows the storage space in the parking area for the new design. The school currently allows vehicles to queue inside the parking lot before pick-up and drop-off times, and this practice will continue once the construction is complete.

City staff expressed concerned about potential effects to site access due to dumpsters being temporarily placed on the street for trash and recycling pick-up. While the study does not anticipate this temporary condition effecting traffic operations on the street, as there is minimal queuing on the street from the school and observed queuing was very brief, the school will monitor this condition and work with the City to implement staggered pick-up and drop-off times if needed.

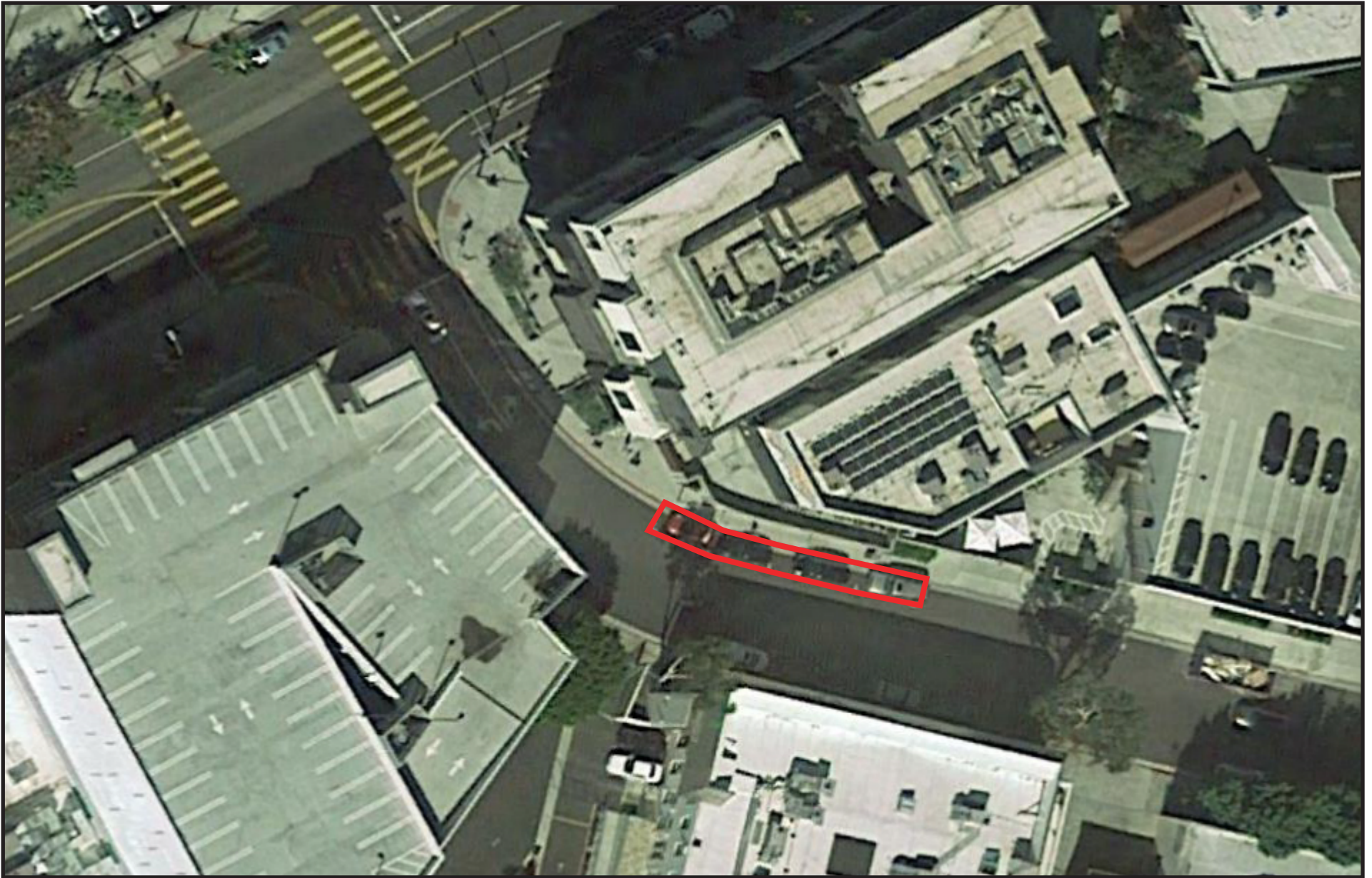


Figure 12

Location of Temporary Construction Drop-Off and Pick-Up

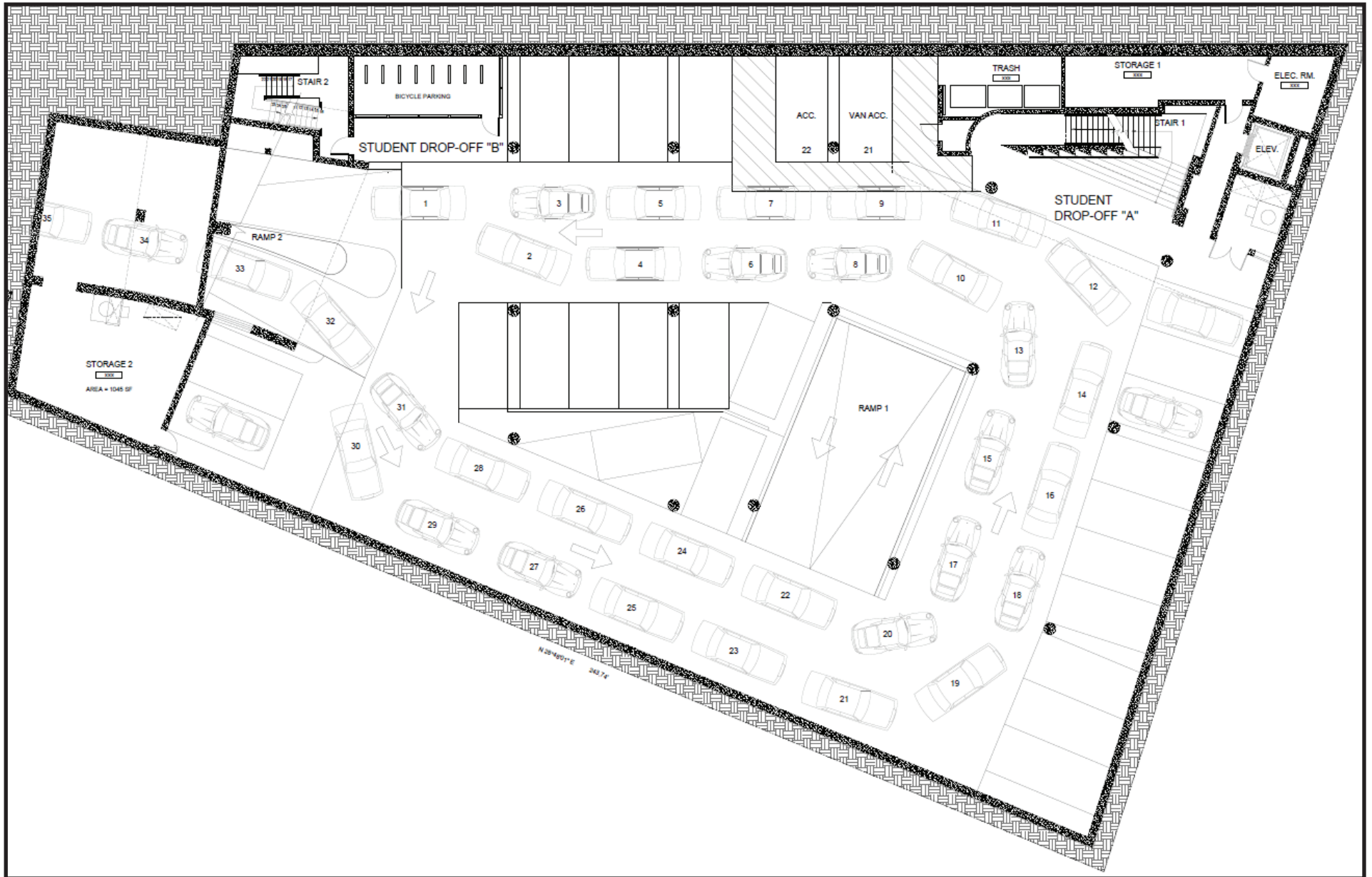


Figure 13

## Vehicle Storage Capacity of Parking Area



## SIMULATION ANALYSIS

As part of the MOU process, the City requested the study include queuing analysis related to pick-up and drop-off at the school during all three time periods. The SimTraffic software was used to analyze conditions near the school. The network included Washington Boulevard from National Boulevard to Robertson Boulevard, and all of Landmark Street, including driveways for The Platform and the school. Results from Sim Traffic were developed using the HCM methodology to calculate queues related to the pick-up/drop-off traffic at the school driveway and at Washington Boulevard & Landmark Street. Queuing was analyzed during three scenarios:

- Existing
- Future with Construction
- Future plus Project (Post Construction)

Existing Conditions and Construction Conditions both used existing volumes, as the school expansion will not be complete. Vehicle volumes were balanced between signalized intersections using existing counts. Volumes were also balanced between the existing counts at Washington Boulevard & Landmark Street and the school driveway (where counts were taken). Other driveways on Landmark Street where counts were not taken were used to balance vehicle volumes.

Table 8 shows the maximum observed queue length for the following locations:

- Westbound left-turning vehicles from Washington Boulevard to Landmark Street
- Northbound vehicles from Landmark Street turning onto Landmark Street
- Vehicles entering and existing the Park Century School driveway
- Vehicles dropping off or picking up students within the Park Century Parking Lot during the existing and Future plus Project scenarios
- Vehicles dropping off or picking up students within the Park Century Parking Lot during the Future with Construction Scenario

Unlike, the 95<sup>th</sup> percentile queue length, which is a mathematically calculated number based on the average queue, the maximum queue is based on observed queue lengths, and represents the greatest observed queue over 10 simulation runs. As shown in Table 8, westbound left-turn queues exceed the available storage length during all three scenarios. The greatest queuing is reported in the AM peak hour, and is not exacerbated by the school expansion. Despite more vehicles making the westbound left turn in the Future plus Project scenario, queuing is similar in the Existing and Future plus Project at this movement due to

more frequent gaps for westbound left-turning vehicles because increased queuing for eastbound vehicles spills back from the intersection of Washington Boulevard and National Boulevard. This queue spillback presents opportunities where eastbound vehicles must wait at Landmark Street, providing gaps for westbound left-turning vehicles to turn. In order to accommodate the existing and future queuing at the westbound left-turn lane, the City has requested that the project restripe this left-turn lane to extend the turn pocket to 275 feet. Park Century School will coordinate with the City to restripe the left-turn lane. Figure 14 displays a conceptual restriping of this movement.

During both the Existing and Future plus Project scenarios, queuing at the pick-up/drop-off area is within the storage provided by the parking lot. Queuing for vehicles entering the school is never more than 75 feet, and does not affect traffic operations at the intersection of Washington Boulevard & Landmark Street.

In the Construction Conditions scenario, it is assumed vehicles dropping off or picking up student would follow the TMP described above. Queuing during this time period is not expected to exceed 100 feet based on the simulation results, and would occur along the curb space without blocking traffic. The 100 feet required for the temporary pick-up/drop-off would be accommodated by the removal of the four metered spaces and additional buffer on either side of the metered parking spaces. No driveway access would be affected for any of the surrounding buildings. Detailed results are shown in Appendix D.

**TABLE 8  
SIMULATION QUEUE RESULTS**

Intersection	Movement	Storage	Existing Scenario			Construction Scenario			Future + Project Scenario		
			AM	Midday (3-4 PM)	PM	AM	Midday (3-4 PM)	PM	AM	Midday (3-4 PM)	PM
5. Washington Bl / Landmark St	Northbound Left	50	100	100	100	75	100	100	100	100	100
	Northbound Right	50	100	100	100	75	100	100	100	100	100
	Westbound Left	100	275	175	225	275	250	225	275	250	250
10. Park Century School / Landmark St	Inbound Right	100	75	50	25	-	-	-	75	75	50
	Outbound Left	300*	50	75	50	-	-	-	50	75	50
Pickup/Dropoff Queue	Pickup/Dropoff Queue	300*	200	200	125	-	-	-	225	200	175
Temporary Pickup/Dropoff Queue	Pickup/Dropoff Queue	100 <sup>^</sup>	-	-	-	100	75	75	-	-	-

Notes: The storage and maximum queue lengths are rounded to the nearest 25 feet, which is approximately one car length.

The maximum queue is based on observed queue lengths, and represents the greatest observed queue over 10 simulation runs

A vehicle is considered queued whenever it is traveling at less than 10 ft/s or 6.8 mph.

\*300 feet of queueing storage considers the whole length of the Park Century School parking lot.

<sup>^</sup>100 feet of queueing storage considers 4 metered parking spaces temporarily used for student loading/unloading during school pick-up and drop-off times

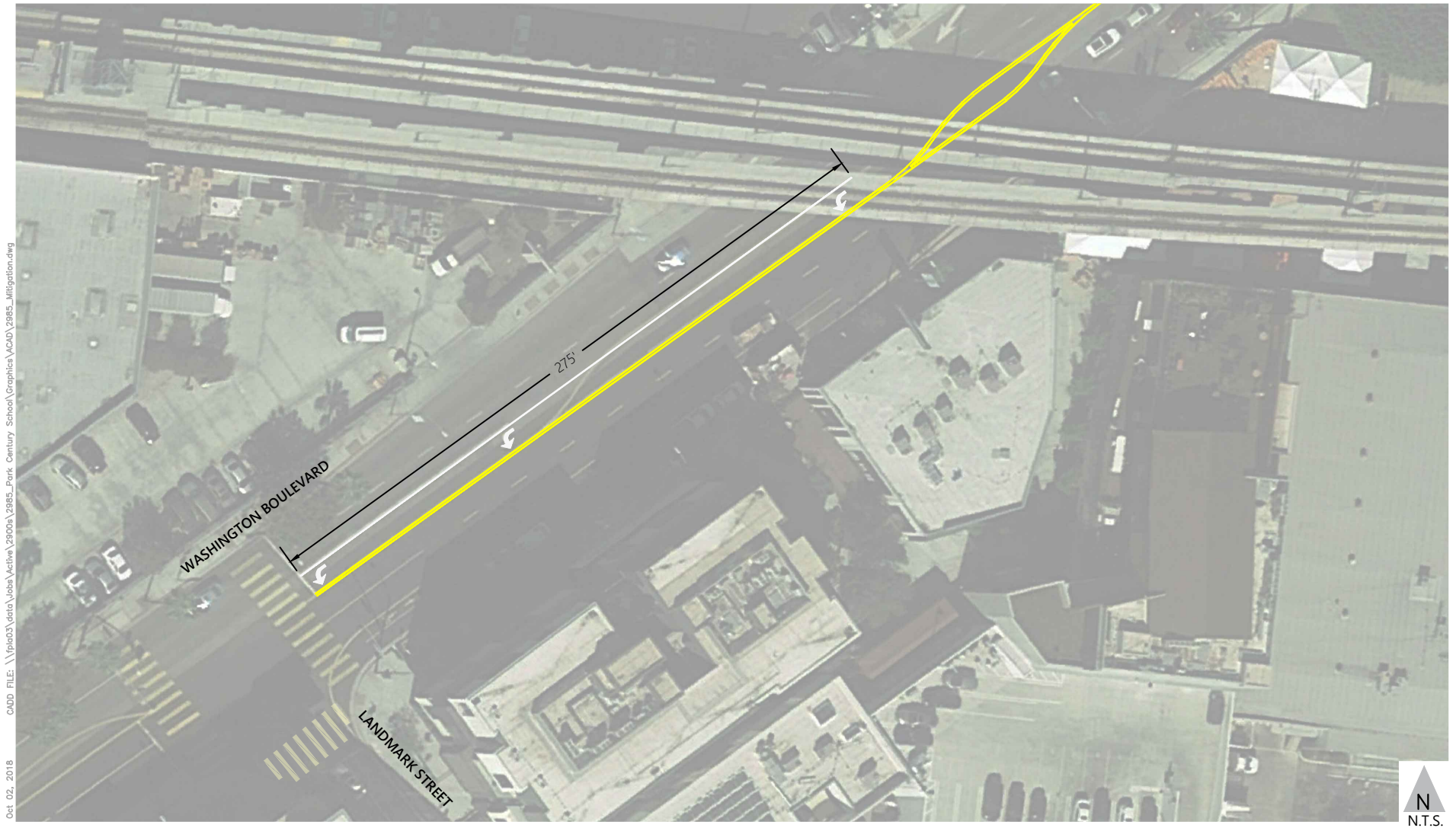


Figure 14  
Conceptual Striping Plan to Extend Westbound Left-Turn Pocket  
Washington Boulevard & Landmark Street  
Park Century School Project



CONCEPTUAL - NOT FOR CONSTRUCTION  
DETAILED ANALYSIS AND ENGINEERING DESIGN REQUIRED

## 5. TRANSPORTATION DEMAND MANAGEMENT AND BICYCLE AND PEDESTRIAN CONNECTIONS

Transportation Demand Management (TDM) strategies are a common approach to reducing the impact of automobile trips and typically focus on commute trips. There are several strategies that can be employed:

- Increasing access and reducing cost to use transit
- Encouraging biking and walking through a combination of financial incentives, educational programs, and marketing
- Charging for parking so individuals are forced to pay for their space, rather than have the cost covered by the employer

As a school, Park Century trips are divided into two categories: employee trips and student trips. Employee trips largely follow normal commuting patterns, and are subject to the TDM strategies discussed above. Student trips are different, and involve a parent or guardian picking up or dropping off a student. These trips may be part of a larger trip chain, such as the parent's own commute to work, and strategies may include increasing student carpooling or providing alternative options for students to travel, such as bus service.

### SHARED COMMUTING AND TRANSIT

The school is working to create a carpooling service which would reduce the amount of vehicle trips needed for students. The school and parents would contract with a third party vendor to pick up multiple students and take them to school, which would reduce the number of vehicle trips needed to transport students. Starting during construction, the school will be providing staff living close to the school and/or transit lines with Metro TAP cards. This service will be extended after construction is complete to encourage staff to commute by transit. The school is located a short walk from the Culver City Expo Line Station, and numerous bus routes.

### BICYCLE PARKING

Bicycle parking will be provided at both grade (for the short-term parking) and in the parking garage (for long-term parking), with two and eight spaces respectively. All new bicycle racks will adhere to the Culver City Bicycle and Pedestrian Master Plan Design Guidelines.



## EXISTING AND FUTURE BIKEWAYS

As stated in Chapter 2, there are dedicated bicycle facilities near the site on National Boulevard, Venice Boulevard, and Exposition Boulevard. In addition to existing bicycle facilities, Culver City has been working on bicycle improvements throughout the city. The Culver City Bicycle and Pedestrian Master Plan calls for new bicycle facilities within the vicinity of the project, on National Boulevard, Washington Boulevard, and Culver Boulevard. The City completed a feasibility study in May 2017 for the Expo-Downtown Bicycle Connector, which recommended a two-way protected bikeway on portions of Washington Boulevard and Robertson Boulevard. The design would maintain current configuration of four travel lanes on both Washington Boulevard and Robertson Boulevard, but would remove parking and center turn lanes in some locations. The City is currently working to finalize the design of the facility.

## 6. REGIONAL TRANSPORTATION IMPACT ANALYSIS

This chapter presents an analysis of potential project impacts on the regional transportation system in terms of vehicular and transit service impacts. This analysis was conducted in accordance with the transportation impact analysis (TIA) procedures outlined in *2010 Congestion Management Program for Los Angeles County* (Los Angeles County Metropolitan Transportation Authority, October 2010). The Congestion Management Program (CMP) requires that, when an environmental impact report (EIR) is prepared for a project, traffic and transit impact analyses be conducted for select regional facilities based on the quantity of project traffic expected to use these facilities.

### CMP TRAFFIC IMPACT ANALYSIS

#### CRITERIA FOR ANALYSIS

The CMP guidelines state that the first issue addressed be the determination of the geographic scope of the study area. The criteria for determining the study area for CMP arterial monitoring intersections and for freeway monitoring locations are:

- All CMP arterial monitoring intersections where the proposed project will add 50 or more trips during either the AM or PM weekday peak hours of adjacent street traffic.
- All CMP mainline freeway monitoring locations where the proposed project will add 150 or more trips, in either direction, during either the AM or PM weekday peak hours.

The CMP traffic impact analysis guidelines establish that a significant project impact occurs when the proposed project increases traffic demand on a CMP facility by 2% or more of capacity ( $V/C \geq 0.02$ ), causing or worsening LOS F ( $V/C > 1.00$ ).

## ARTERIAL MONITORING STATION ANALYSIS

The CMP arterial monitoring stations nearest to the project study area are

- La Cienega Boulevard & Venice Boulevard (City of Los Angeles)
- La Cienega Boulevard & Jefferson Boulevard (City of Los Angeles)
- Overland Avenue & Venice Boulevard (City of Los Angeles)
- La Cienega Boulevard & Centinela Avenue (City of Los Angeles)
- La Cienega Boulevard & Stocker Street (County of Los Angeles)

Based on the project trip generation estimates and a review of the net project traffic volumes shown in Figure 6, the proposed Project would add fewer than 50 vehicle trips at all these arterial monitoring stations. Therefore, no further analysis is required for the CMP arterial intersections.

## FREEWAY MAINLINE MONITORING STATION ANALYSIS

This section presents an analysis of potential project impacts on the regional transportation system. This analysis was conducted in accordance with the transportation impact analysis procedures outlined in the CMP. Since incremental project-related traffic in any direction during either peak hour is projected to be less than the minimum criteria of 150 vehicles per hour (vph), no further CMP freeway analysis is required and CMP freeway impacts are considered to be less than significant.

## REGIONAL TRANSIT IMPACT ANALYSIS

Potential increases in transit person trips generated by the proposed project were estimated as follows. Section D.8.4 of the CMP provides a methodology for estimating the number of transit trips expected to result from a proposed project based on the number of vehicle trips. This methodology assumes an average vehicle ridership (AVR) factor of 1.4 in order to estimate the number of person trips to and from the project and then provides guidelines regarding the percentage of person trips assigned to public transit depending on the type of use (commercial versus residential) and the proximity to transit services. Since the project site is not located within ¼ mile of a designated CMP transit corridor, the CMP guidelines estimate that approximately 3.5% of total person trips generated might use public transit to travel to and from the site. Although the school is located near a light rail station, most staff and students currently do not take transit, and this number is not expected to shift dramatically once the construction is complete.

Based on the trip generation shown in Table 3, the proposed project is estimated to generate 62 new trips in the AM peak hour, 38 in the midday peak hour, and 19 in the PM peak hour. Applying the CMP guidelines by converting the vehicle trips to person trips by multiplying by a 1.4 AVR ( $62 \text{ net AM peak hour trips} \times 1.4 = 87$ ,  $38 \text{ net MD peak hour trips} \times 1.4 = 53$ , and  $19 \text{ net PM peak hour trips} \times 1.4 = 27$ ) and applying a 3.5% transit use factor ( $87 \text{ net AM peak hour person trips} \times 3.5\% = 3$ ,  $53 \text{ net MD peak hour person trips} \times 3.5\% = 2$ , and  $19 \text{ net PM peak hour person trips} \times 3.5\% = 1$ ), would result in approximately 3 new transit person trips during the weekday AM, 2 new trips in the midday, and 1 new trip in the PM.

Within  $\frac{1}{4}$  mile of the project site, Metro, Culver CityBus, and Big Blue Bus operate several local and rapid buses, and Metro operates the Expo Light Rail Line, which has a station within a short walk of the school. These transit options have a peak hour capacity of several thousand riders. Based on this estimate, the project impact is expected to be less than significant.

## 7. SUMMARY AND CONCLUSIONS

This study was undertaken to analyze the potential traffic impacts of the proposed expansion of the Park Century School on the local street system. The following summarizes the results of this analysis:

- The proposed project would expand the Park Century School to accommodate 50 additional students and eight additional staff. The project driveway would not change.
- The project would generate an estimated 62 trips (30 inbound/32 outbound) during the AM peak hour, 38 trips (22 inbound/16 outbound) during the MD peak hour, and 19 trips (8 inbound/11 outbound) during the PM peak hour.
- The LOS analysis for the Existing plus Project and Future plus Project scenarios (using City of Culver City and/or City of Los Angeles significance criteria, as applicable) determined that the proposed project would not result in any significant impacts for vehicle traffic at any of the eight study intersections.
- Analyses of potential impacts on the regional transportation system conducted in accordance with CMP requirements determined that the project would not have a significant impact on CMP monitoring intersections or the mainline freeway system.
- The project location is well served by numerous established transit routes and project-related impacts on the regional transit system are not expected to be significant.
- Queuing at the project driveway is minimal and has little effect on traffic operations on Landmark Street. With the construction of the school expansion, queuing is expected to remain similar. A traffic management plan (TMP) was created to coordinate pick-ups and drop-offs, and can be implemented if queuing at the driveway becomes an issue.
- During construction, pick-up and drop-off would occur on Landmark Street across from the school. Parking would be temporarily prohibited at four metered parking spaces during construction from 7:00-8:00 AM in the morning, and 2:30-3:30 PM in the afternoon. The school agrees to pay for the City costs and lost parking meter revenue (estimated to be \$1,679.39) associated with temporary parking prohibition during pick-up/drop-off during construction. The school agrees to the training and placing a crossing guard temporarily during construction, and will contact affected businesses at The Platform to inform them of the temporary use of the parking meters for pick up and drop off, and ask these businesses to contact the City or send the City their input.
- The westbound left-turn pocket on Washington Boulevard at Landmark Street currently has 100 feet of storage space. Queues at this approach exceed the storage space during the AM and PM peak hours in the existing scenario, and are expected to increase with the project. A 275 foot turn-pocket would be sufficient to store queued vehicles once the project is built. The approach has a painted medians before the striped turn-pockets, which provides an opportunity to extend

the turn pocket without reducing through vehicle capacity. The Project will be responsible for coordinating with the City to restripe this turn pocket to provide 275 feet of storage space.

## **APPENDIX A: INTERSECTION TRAFFIC COUNTS**



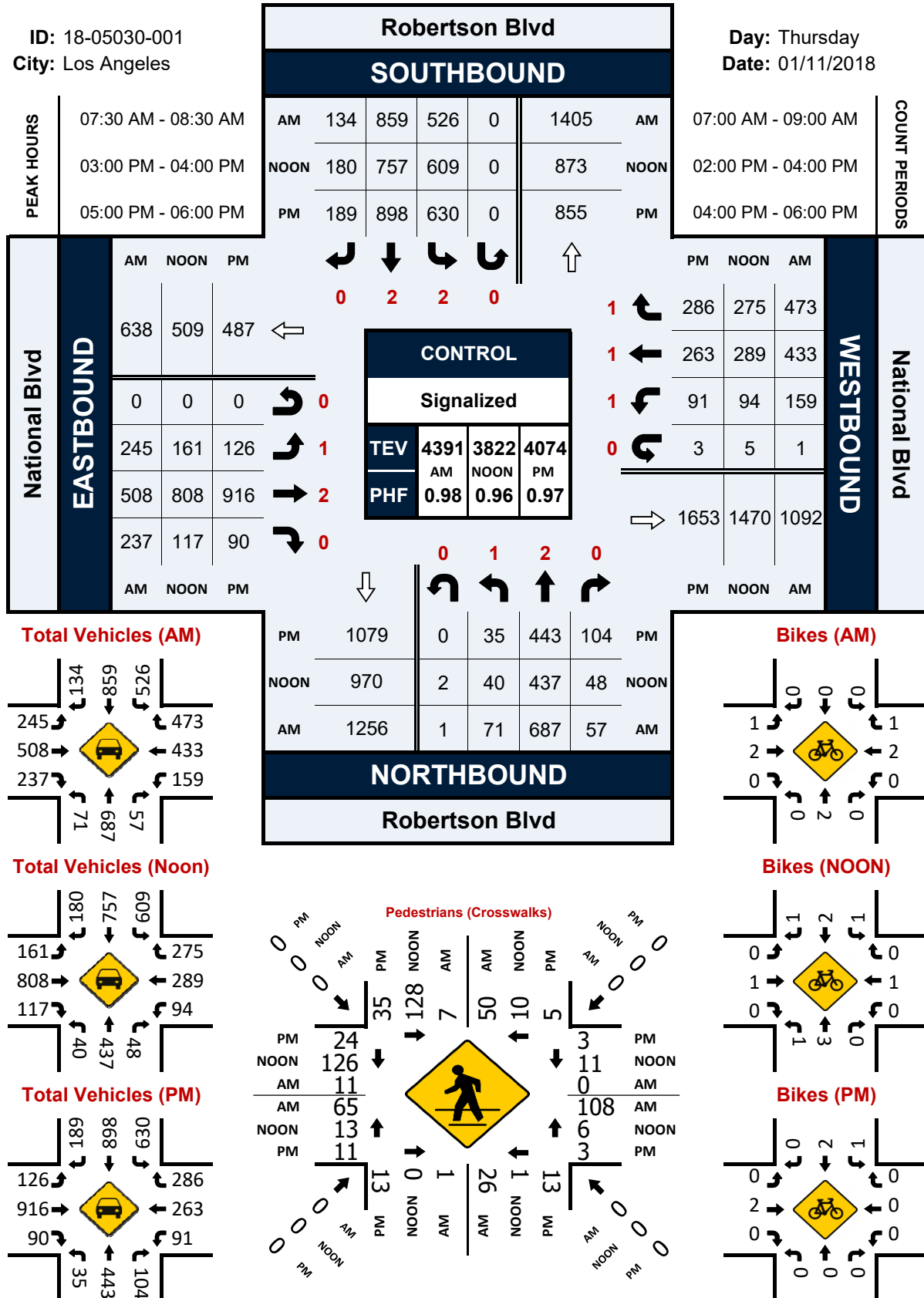
## **INTERSECTION COUNTS**

## Robertson Blvd &amp; National Blvd

## Peak Hour Turning Movement Count

ID: 18-05030-001  
City: Los Angeles

Day: Thursday  
Date: 01/11/2018

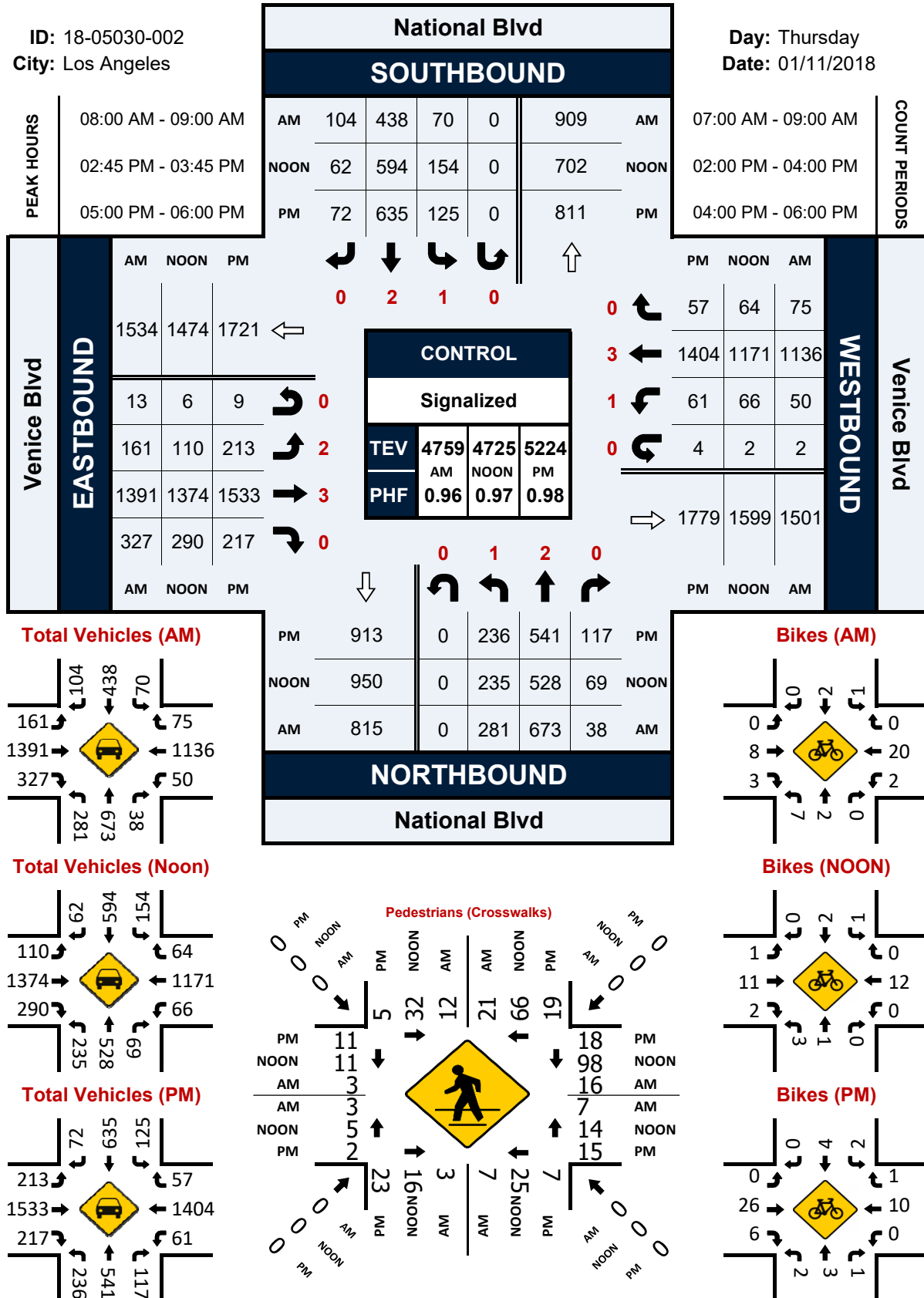


## National Blvd &amp; Venice Blvd

## Peak Hour Turning Movement Count

ID: 18-05030-002  
City: Los Angeles

Day: Thursday  
Date: 01/11/2018

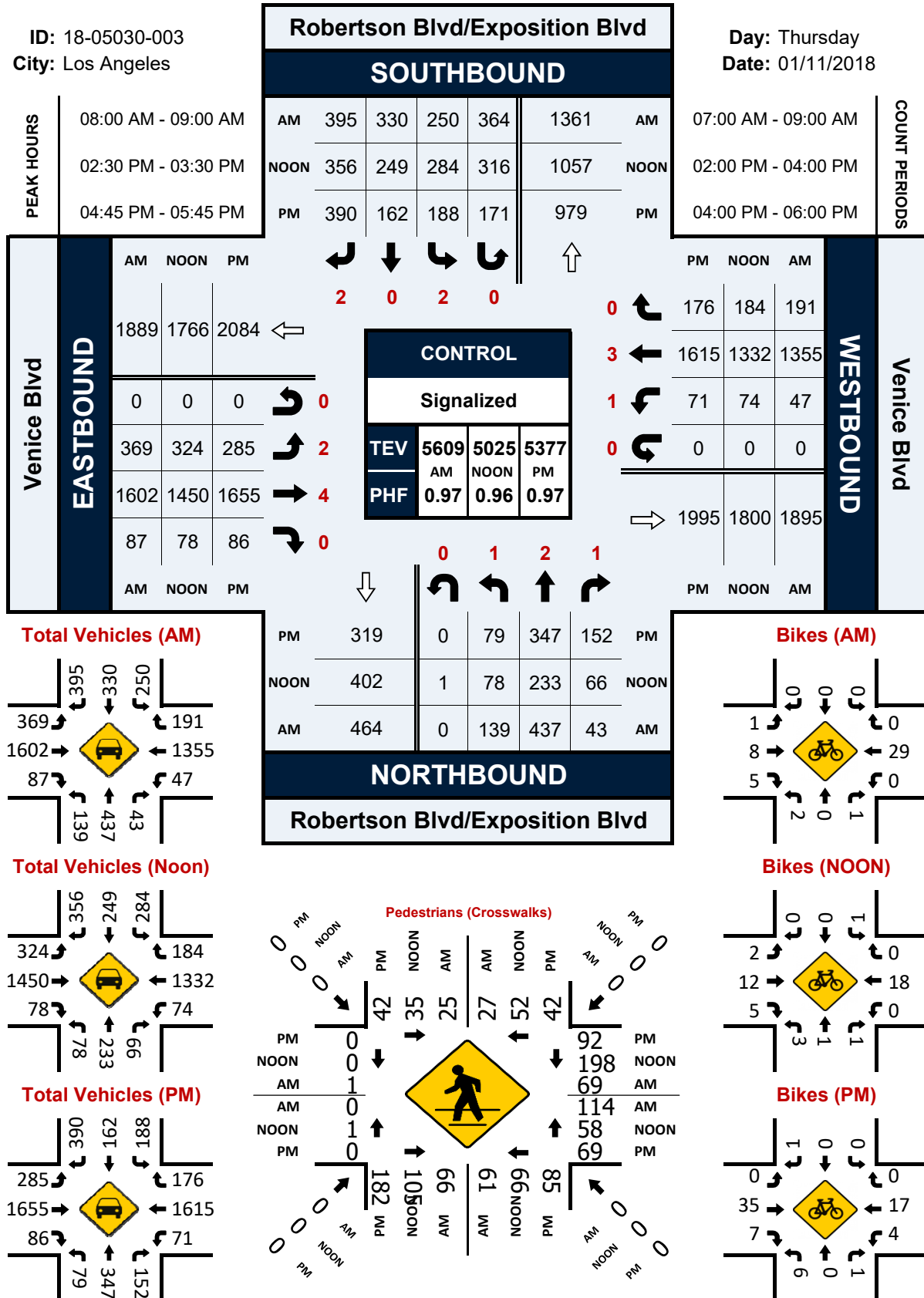


## Robertson Blvd/Exposition Blvd &amp; Venice Blvd

## Peak Hour Turning Movement Count

ID: 18-05030-003  
City: Los Angeles

Day: Thursday  
Date: 01/11/2018

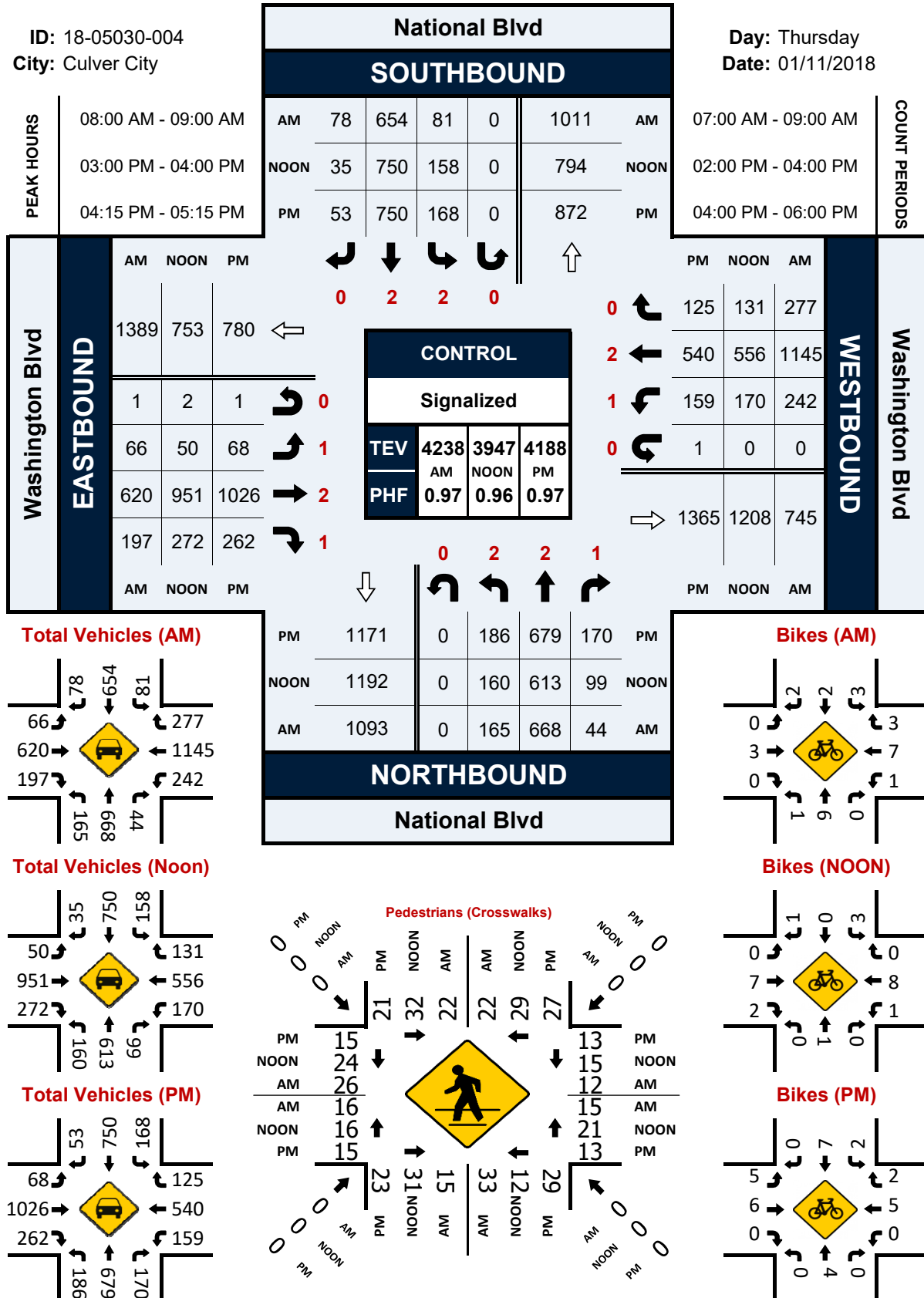


## National Blvd &amp; Washington Blvd

## Peak Hour Turning Movement Count

ID: 18-05030-004  
City: Culver City

Day: Thursday  
Date: 01/11/2018

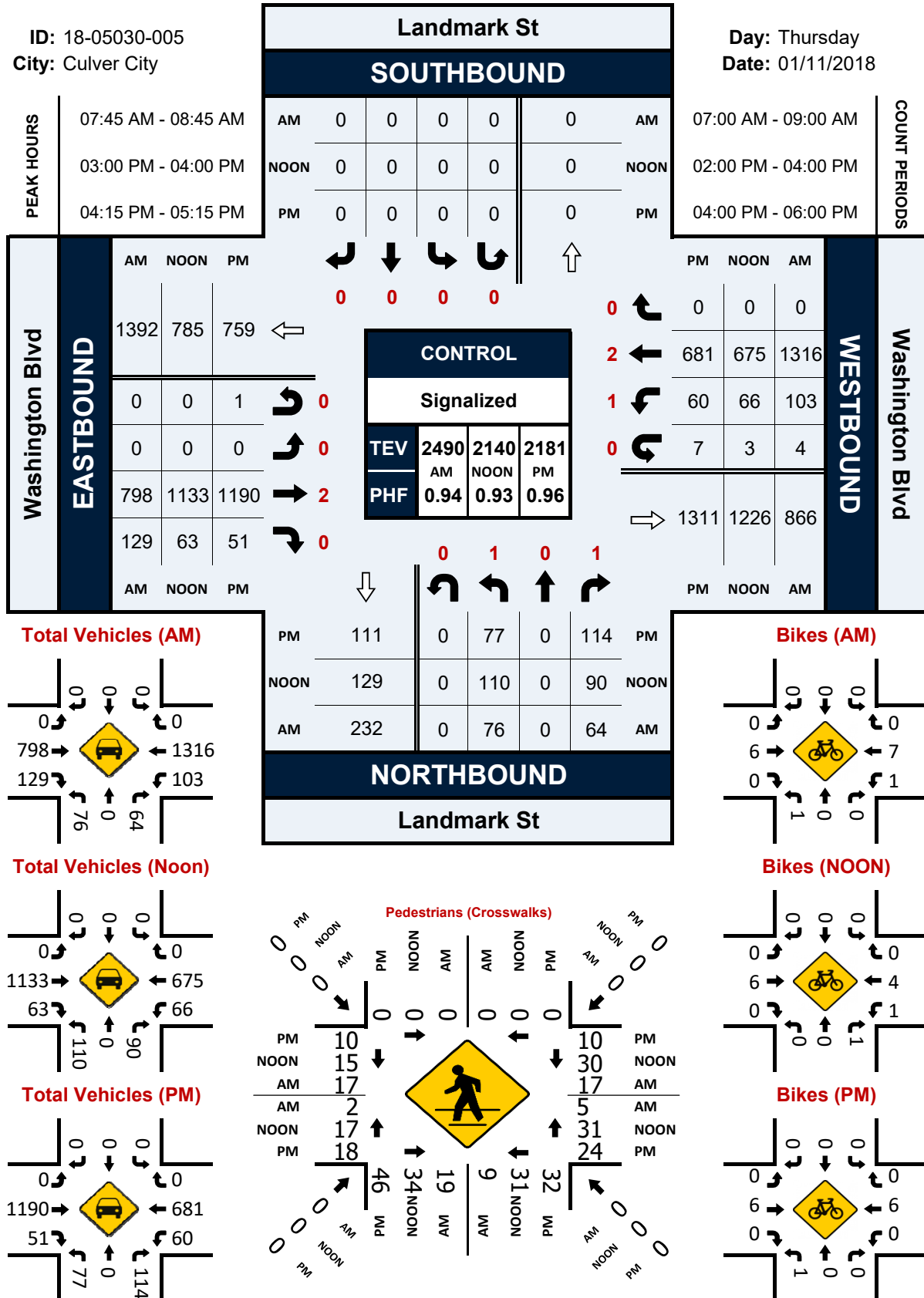


# Landmark St & Washington Blvd

## Peak Hour Turning Movement Count

ID: 18-05030-005  
City: Culver City

Day: Thursday  
Date: 01/11/2018

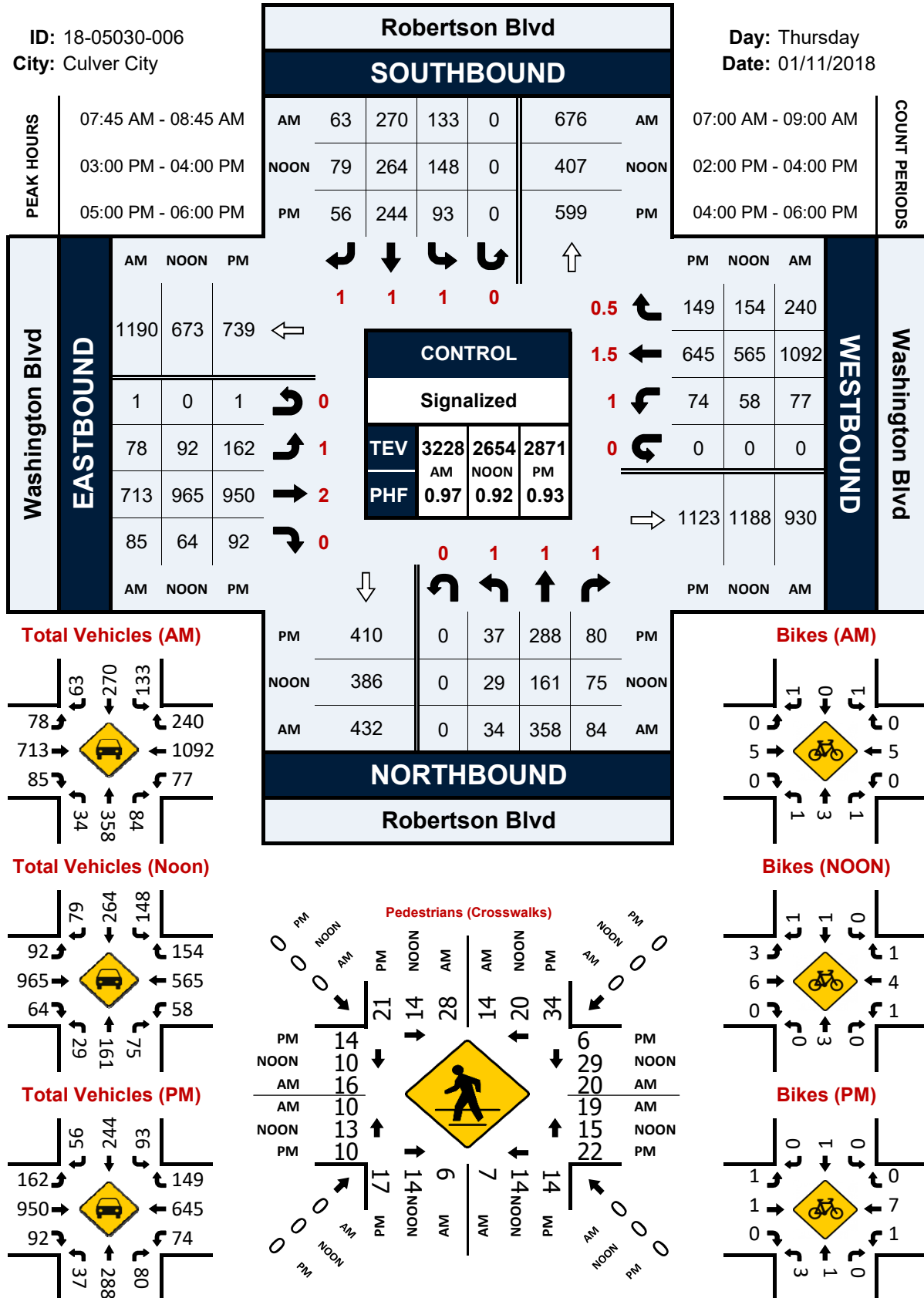


## Robertson Blvd &amp; Washington Blvd

## Peak Hour Turning Movement Count

ID: 18-05030-006  
City: Culver City

Day: Thursday  
Date: 01/11/2018

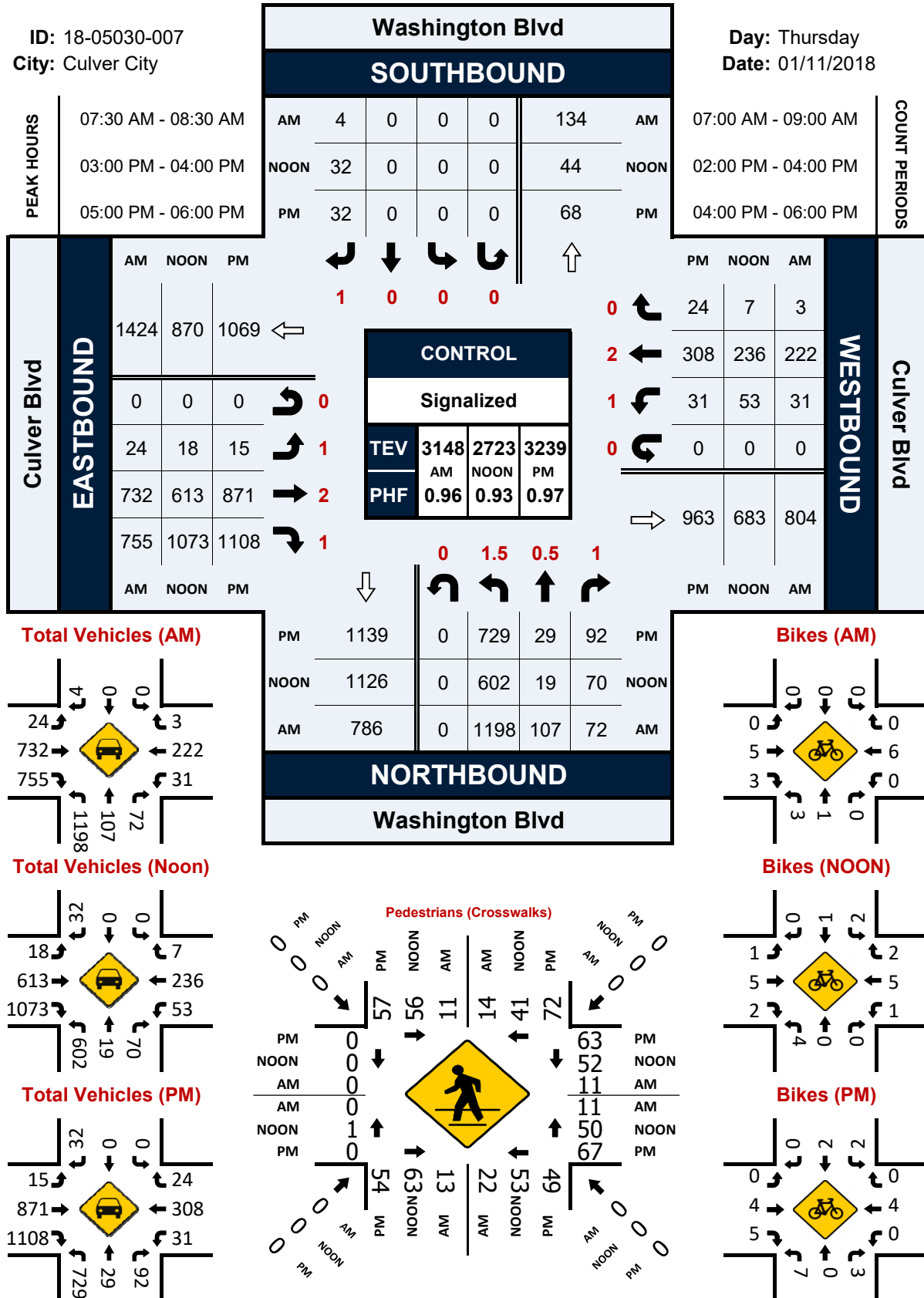


# Washington Blvd & Culver Blvd

## Peak Hour Turning Movement Count

ID: 18-05030-007  
City: Culver City

Day: Thursday  
Date: 01/11/2018

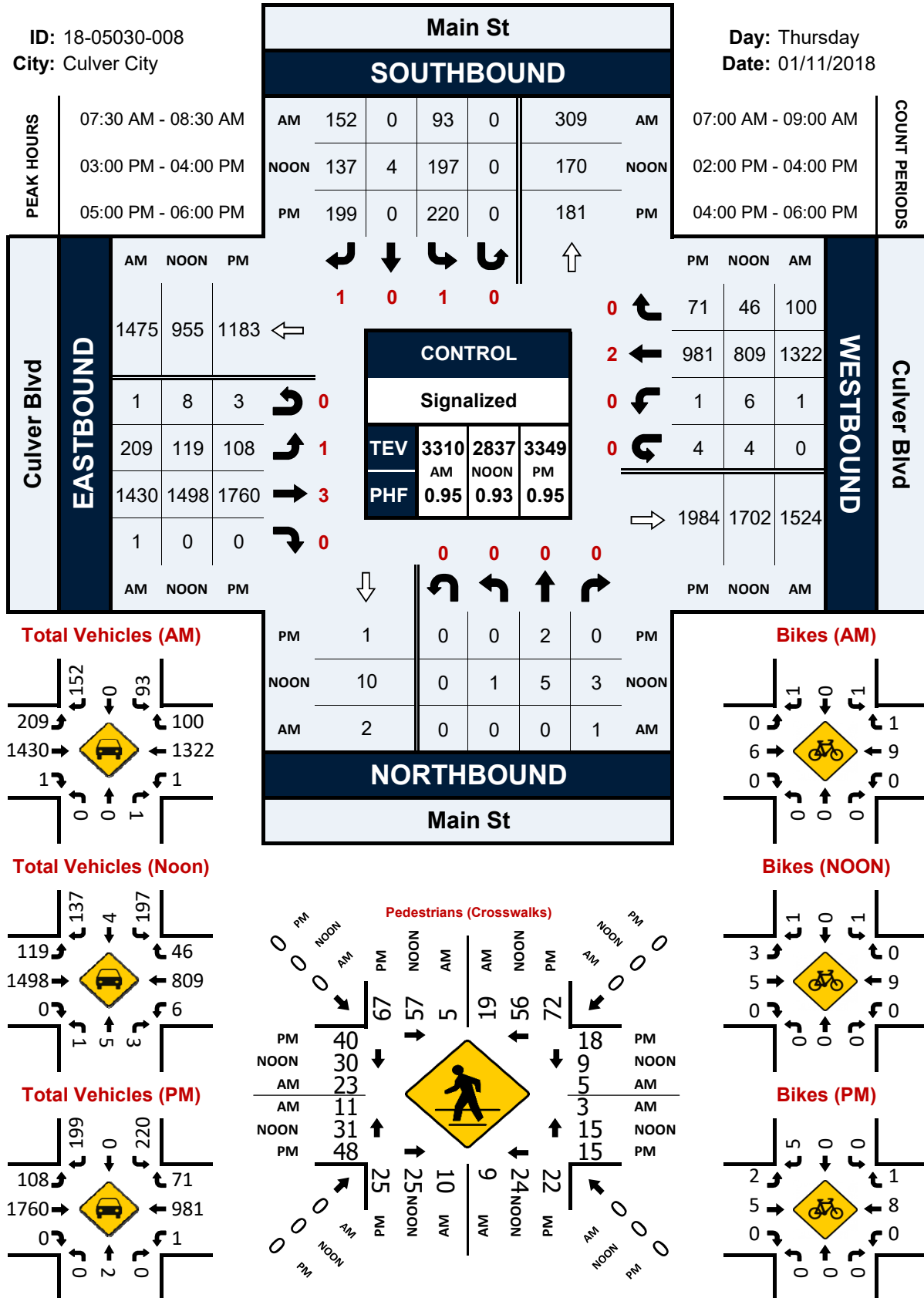


## Main St &amp; Culver Blvd

## Peak Hour Turning Movement Count

ID: 18-05030-008  
City: Culver City

Day: Thursday  
Date: 01/11/2018



**Driveway In & Out With Students****Location:** Park Century School**Date:** 10/26/2017**City:** Culver City**Day:** Thursday

Time	Inbound	Outbound	Grand Totals
7:00	0	0	<b>0</b>
7:15	0	0	<b>0</b>
7:30	7	1	<b>8</b>
7:45	13	1	<b>14</b>
8:00	38	1	<b>39</b>
8:15	11	0	<b>11</b>
8:30	2	0	<b>2</b>
8:45	0	0	<b>0</b>
<b>Totals</b>	<b>71</b>	<b>3</b>	<b>74</b>
14:00	0	1	<b>1</b>
14:15	0	0	<b>0</b>
14:30	0	0	<b>0</b>
14:45	0	3	<b>3</b>
15:00	0	24	<b>24</b>
15:15	0	3	<b>3</b>
15:30	1	4	<b>5</b>
15:45	1	5	<b>6</b>
16:00	0	12	<b>12</b>
16:15	0	3	<b>3</b>
16:30	0	10	<b>10</b>
16:45	0	1	<b>1</b>
17:00	0	0	<b>0</b>
17:15	0	0	<b>0</b>
17:30	0	0	<b>0</b>
17:45	0	0	<b>0</b>
17:45	<b>2</b>	<b>66</b>	<b>68</b>

**Driveway In & Out Without Students****Location:** Park Century School**Date:** 10/26/2017**City:** Culver City**Day:** Thursday

Time	Inbound	Outbound	Grand Totals
7:00	5	0	5
7:15	5	0	5
7:30	11	5	16
7:45	6	9	15
8:00	7	32	39
8:15	3	23	26
8:30	2	3	5
8:45	0	0	0
<b>Totals</b>	<b>39</b>	<b>72</b>	<b>111</b>
14:00	4	3	7
14:15	2	1	3
14:30	6	0	6
14:45	11	0	11
15:00	11	0	11
15:15	5	1	6
15:30	3	2	5
15:45	7	5	12
16:00	6	4	10
16:15	2	1	3
16:30	7	3	10
16:45	1	2	3
17:00	0	1	1
17:15	1	0	1
17:30	1	0	1
17:45	0	0	0
17:45	<b>67</b>	<b>23</b>	<b>90</b>

## **APPENDIX B: LOS ANALYSIS**



**EXISTING**



# Level of Service Worksheet (Circular 212 Method)



I/S #: **1**

**PROJECT TITLE:** Park Century School  
**North-South Street:** Robertson Bl  
**Scenario:** Existing  
**Count Date:** 1/0/1900

**East-West Street:** National Bl

**Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases		4			4		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0			0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB-- 0		NB-- 0	SB-- 0	
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0	WB-- 3		EB-- 0	WB-- 3	
Override Capacity			2			2	
			0			0	
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	72	1	72	35	1	35
	Left-Through		0			0	
	Through	687	1	372	443	1	274
	Through-Right		1			1	
	Right	57	0	57	104	0	104
	Left-Through-Right		0			0	
SOUTHBOUND	Left-Right		0			0	
	Left	526	2	289	630	2	347
	Left-Through		0			0	
	Through	859	1	497	898	1	544
	Through-Right		1			1	
	Right	134	0	134	189	0	189
EASTBOUND	Left-Through-Right		0			0	
	Left-Right		0			0	
	Left	245	1	245	126	1	126
	Left-Through		0			0	
	Through	508	1	373	916	1	503
	Through-Right		1			1	
WESTBOUND	Right	237	0	237	90	0	90
	Left-Through-Right		0			0	
	Left-Right		0			0	
	Left	160	1	160	94	1	94
	Left-Through		0			0	
	Through	433	1	433	263	1	263
	Through-Right		0			0	
	Right	473	1	184	286	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES		North-South: 661			North-South: 621		
		East-West: 678			East-West: 597		
		SUM: 1339			SUM: 1218		
VOLUME/CAPACITY (V/C) RATIO:		0.974			0.886		
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.874			0.786		
LEVEL OF SERVICE (LOS):		D			C		

# Level of Service Worksheet (Circular 212 Method)



I/S #: **2**

**PROJECT TITLE:** Park Century School  
**North-South Street:** National Bl  
**Scenario:** Existing  
**Count Date:** 1/0/1900

**East-West Street:** Venice Bl

**Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB-- 0	0	NB-- 0	SB-- 0	0
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0	WB-- 0	0	EB-- 0	WB-- 0	0
Override Capacity				2			2
				0			0
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	281	1	281	236	1	236
	Left-Through		0			0	
	Through	673	1	356	541	1	329
	Through-Right		1			1	
	Right	38	0	38	117	0	117
	Left-Through-Right		0			0	
SOUTHBOUND	Left	70	1	70	125	1	125
	Left-Through		0			0	
	Through	438	1	271	635	1	354
	Through-Right		1			1	
	Right	104	0	104	72	0	72
	Left-Through-Right		0			0	
EASTBOUND	Left	174	2	96	222	2	122
	Left-Through		0			0	
	Through	1391	3	464	1533	3	511
	Through-Right		0			0	
	Right	327	1	187	217	1	99
	Left-Through-Right		0			0	
WESTBOUND	Left	52	1	52	65	1	65
	Left-Through		0			0	
	Through	1136	3	379	1404	3	468
	Through-Right		0			0	
	Right	75	1	40	57	1	0
	Left-Through-Right		0			0	
CRITICAL VOLUMES		North-South:		552	North-South:		590
		East-West:		516	East-West:		590
		SUM:		1068	SUM:		1180
VOLUME/CAPACITY (V/C) RATIO:				0.777			0.858
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.677			0.758
LEVEL OF SERVICE (LOS):				B			C

# Level of Service Worksheet (Circular 212 Method)



I/S #: **3**

**PROJECT TITLE:** Park Century School  
**North-South Street:** Robertson Bl  
**Scenario:** Existing  
**Count Date:** 1/0/1900

**East-West Street:** Venice Bl

**Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases		4			4		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		1			1		
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB-- 0		NB-- 0	SB-- 0	
ATSAC-1 or ATSAC+ATCS-2?		EB-- 3	WB-- 0		EB-- 3	WB-- 0	
Override Capacity		2			2		
		0			0		
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	139	1	139	79	1	79
	Left-Through		0			0	
	Through	437	2	219	347	2	174
	Through-Right		0			0	
	Right	43	1	20	152	1	117
	Left-Through-Right		0			0	
SOUTHBOUND	Left	250	1	250	188	1	188
	Left-Through		0			0	
	Through	330	1	330	162	1	162
	Through-Right		0			0	
	Right	395	1	294	390	1	312
	Left-Through-Right		0			0	
EASTBOUND	Left	369	2	203	285	2	157
	Left-Through		0			0	
	Through	1602	3	534	1655	3	552
	Through-Right		0			0	
	Right	87	1	0	86	1	7
	Left-Through-Right		0			0	
WESTBOUND	Left	47	1	47	71	1	71
	Left-Through		0			0	
	Through	1355	3	452	1615	3	538
	Through-Right		0			0	
	Right	191	1	66	176	1	82
	Left-Through-Right		0			0	
CRITICAL VOLUMES		North-South: 549			North-South: 486		
		East-West: 655			East-West: 695		
		SUM: 1204			SUM: 1181		
VOLUME/CAPACITY (V/C) RATIO:		0.876			0.859		
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.776			0.759		
LEVEL OF SERVICE (LOS):		C			C		

**Project Title:** Park Century School  
**Intersection:** 4 - National BI & Washington BI  
**Description:** Existing

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 20 %  
ITS: 7 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	78	0	0.000	N-S(1): 0.241
	TH	2.00	654	3,200	0.229 *	N-S(2): 0.293 *
	LT	2.00	81	2,560	0.032	E-W(1): 0.345 *
Westbound	RT	0.00	277	0	0.000	E-W(2): 0.338
	TH	3.00	1,145	4,800	0.296	V/C: 0.638
	LT	1.00	242	1,600	0.151 *	Lost Time: 0.100
Northbound	RT	1.00	44	1,600	0.000	ITS: -0.070
	TH	2.00	668	3,200	0.209	
	LT	2.00	165	2,560	0.064 *	
Eastbound	RT	1.00	197	1,600	0.091	ICU: 0.668
	TH	2.00	620	3,200	0.194 *	
	LT	1.00	67	1,600	0.042	LOS: B

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	53	0	0.000	N-S(1): 0.278
	TH	2.00	750	3,200	0.251 *	N-S(2): 0.324 *
	LT	2.00	168	2,560	0.066	E-W(1): 0.421 *
Westbound	RT	0.00	125	0	0.000	E-W(2): 0.182
	TH	3.00	540	4,800	0.139	V/C: 0.745
	LT	1.00	160	1,600	0.100 *	Lost Time: 0.100
Northbound	RT	1.00	170	1,600	0.056	ITS: -0.070
	TH	2.00	679	3,200	0.212	
	LT	2.00	186	2,560	0.073 *	
Eastbound	RT	1.00	262	1,600	0.127	ICU: 0.775
	TH	2.00	1,026	3,200	0.321 *	
	LT	1.00	69	1,600	0.043	LOS: C

\* - Denotes critical movement

**Project Title:** Park Century School  
**Intersection:** 5 - Landmark St & Washington Bl  
**Description:** Existing

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 20 %  
ITS: 7 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	0	0	0.000	N-S(1): 0.007
	TH	0.00	0	0	0.000 *	N-S(2): 0.048 *
	LT	0.00	0	0	0.000	E-W(1): 0.357
Westbound	RT	0.00	0	0	0.000	E-W(2): 0.411 *
	TH	2.00	1,316	3,200	0.411 *	V/C: 0.459
	LT	1.00	107	1,600	0.067	Lost Time: 0.100
Northbound	RT	1.00	64	1,600	0.007	ITS: -0.070
	TH	0.00	0	0	0.000	
	LT	1.00	76	1,600	0.048 *	
Eastbound	RT	0.00	129	0	0.000	ICU: 0.489
	TH	2.00	798	3,200	0.290	
	LT	0.00	0	0	0.000 *	LOS: A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	0	0	0.000	N-S(1): 0.050 *
	TH	0.00	0	0	0.000	N-S(2): 0.048
	LT	0.00	0	0	0.000 *	E-W(1): 0.430 *
Westbound	RT	0.00	0	0	0.000	E-W(2): 0.214
	TH	2.00	681	3,200	0.213	V/C: 0.480
	LT	1.00	67	1,600	0.042 *	Lost Time: 0.100
Northbound	RT	1.00	114	1,600	0.050 *	ITS: -0.070
	TH	0.00	0	0	0.000	
	LT	1.00	77	1,600	0.048	
Eastbound	RT	0.00	51	0	0.000	ICU: 0.510
	TH	2.00	1,190	1,600	0.388 *	
	LT	0.00	1	1,600	0.001	LOS: A

\* - Denotes critical movement

**Project Title:** Park Century School  
**Intersection:** 6 - Robertson BI & Washington BI  
**Description:** Existing

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 20 %  
ITS: 7 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	63	1,600	0.015	N-S(1): 0.307 *
	TH	1.00	270	1,600	0.169	N-S(2): 0.190
	LT	1.00	133	1,600	0.083 *	E-W(1): 0.297
Westbound	RT	0.00	240	0	0.000	E-W(2): 0.465 *
	TH	2.00	1,092	3,200	0.416 *	V/C: 0.772
	LT	1.00	77	1,600	0.048	Lost Time: 0.100
Northbound	RT	1.00	84	1,600	0.028	ITS: -0.070
	TH	1.00	358	1,600	0.224 *	
	LT	1.00	34	1,600	0.021	
Eastbound	RT	0.00	85	0	0.000	ICU: 0.802
	TH	2.00	713	3,200	0.249	
	LT	1.00	79	1,600	0.049 *	LOS: D

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	56	1,600	0.000	N-S(1): 0.238 *
	TH	1.00	244	1,600	0.153	N-S(2): 0.176
	LT	1.00	93	1,600	0.058 *	E-W(1): 0.372 *
Westbound	RT	0.00	149	0	0.000	E-W(2): 0.350
	TH	2.00	645	3,200	0.248	V/C: 0.610
	LT	1.00	74	1,600	0.046 *	Lost Time: 0.100
Northbound	RT	1.00	80	1,600	0.027	ITS: -0.070
	TH	1.00	288	1,600	0.180 *	
	LT	1.00	37	1,600	0.023	
Eastbound	RT	0.00	92	0	0.000	ICU: 0.640
	TH	2.00	950	3,200	0.326 *	
	LT	1.00	163	1,600	0.102	LOS: B

\* - Denotes critical movement

**Project Title:** Park Century School  
**Intersection:** 7 - Washington Bl & Culver Bl  
**Description:** Existing

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 20 %  
ITS: 7 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	4	1,600	0.003 *	N-S(1): 0.408
	TH	0.00	0	0	0.000	N-S(2): 0.513 *
	LT	0.00	0	0	0.000	E-W(1): 0.248 *
Westbound	RT	0.00	3	0	0.000	E-W(2): 0.085
	TH	2.00	222	3,200	0.070	V/C: 0.761
	LT	1.00	31	1,600	0.019 *	Lost Time: 0.100
Northbound	RT	1.00	72	1,600	0.035	ITS: -0.070
	TH	0.16	107	262	0.408	
	LT	1.84	1,198	2,350	0.510 *	
Eastbound	RT	2.00	755	3,200	0.000	ICU: 0.791
	TH	2.00	732	3,200	0.229 *	
	LT	1.00	24	1,600	0.015	LOS: C

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	32	1,600	0.020 *	N-S(1): 0.237
	TH	0.00	0	0	0.000	N-S(2): 0.316 *
	LT	0.00	0	0	0.000	E-W(1): 0.291 *
Westbound	RT	0.00	24	0	0.000	E-W(2): 0.113
	TH	2.00	308	3,200	0.104	V/C: 0.607
	LT	1.00	31	1,600	0.019 *	Lost Time: 0.100
Northbound	RT	1.00	92	1,600	0.048	ITS: -0.070
	TH	0.08	29	122	0.237	
	LT	1.92	729	2,462	0.296 *	
Eastbound	RT	2.00	1,108	3,200	0.198	ICU: 0.637
	TH	2.00	871	3,200	0.272 *	
	LT	1.00	15	1,600	0.009	LOS: B

\* - Denotes critical movement

**Project Title:** Park Century School  
**Intersection:** 8 - Main St & Culver Bl  
**Description:** Existing

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 20 %  
ITS: 7 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	152	1,600	0.029	N-S(1): 0.059 *
	TH	0.00	0	0	0.000	N-S(2): 0.029
	LT	1.00	93	1,600	0.058 *	E-W(1): 0.448
Westbound	RT	0.00	100	0	0.000	E-W(2): 0.575 *
	TH	2.00	1,322	3,200	0.444 *	V/C: 0.634
	LT	1.00	1	1,600	0.001	Lost Time: 0.100
Northbound	RT	0.00	1	0	0.000	ITS: -0.070
	TH	1.00	0	1,600	0.001 *	
	LT	0.00	0	0	0.000	
Eastbound	RT	0.00	1	0	0.000	ICU: 0.664
	TH	2.00	1,430	3,200	0.447	
	LT	1.00	210	1,600	0.131 *	LOS: B

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	199	1,600	0.090	N-S(1): 0.139 *
	TH	0.00	0	0	0.000	N-S(2): 0.090
	LT	1.00	220	1,600	0.138 *	E-W(1): 0.553 *
Westbound	RT	0.00	71	0	0.000	E-W(2): 0.398
	TH	2.00	981	3,200	0.329	V/C: 0.692
	LT	1.00	5	1,600	0.003 *	Lost Time: 0.100
Northbound	RT	0.00	0	0	0.000	ITS: -0.070
	TH	1.00	2	1,600	0.001 *	
	LT	0.00	0	0	0.000	
Eastbound	RT	0.00	0	0	0.000	ICU: 0.722
	TH	2.00	1,760	3,200	0.550 *	
	LT	1.00	111	1,600	0.069	LOS: C

\* - Denotes critical movement

## Level of Service Worksheet (Circular 212 Method)



**I/S #:**  
**1**

**PROJECT TITLE:** Park Century School  
**North-South Street:** Robertson Bl  
**Scenario:** Existing  
**Count Date:** 1/0/1900

**East-West Street:** National Bl

**Analyst:** <Fehr & Peers<date>

		MD		
No. of Phases				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB-- 0	0
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0	WB-- 3	2
Override Capacity				0
MOVEMENT		Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	42	1	42
	Left-Through		0	
	Through	437	1	243
	Through-Right		1	
	Right	48	0	48
	Left-Through-Right		0	
	Left-Right		0	
SOUTHBOUND	Left	609	2	335
	Left-Through		0	
	Through	757	1	469
	Through-Right		1	
	Right	180	0	180
	Left-Through-Right		0	
	Left-Right		0	
EASTBOUND	Left	161	1	161
	Left-Through		0	
	Through	808	1	463
	Through-Right		1	
	Right	117	0	117
	Left-Through-Right		0	
	Left-Right		0	
WESTBOUND	Left	99	1	99
	Left-Through		0	
	Through	289	1	289
	Through-Right		0	
	Right	275	1	0
	Left-Through-Right		0	
	Left-Right		0	
CRITICAL VOLUMES		North-South:		578
		East-West:		562
		SUM:		1140
VOLUME/CAPACITY (V/C) RATIO:				0.829
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.729
LEVEL OF SERVICE (LOS):				C

## Level of Service Worksheet (Circular 212 Method)



**I/S #:**  
**2**

**PROJECT TITLE:** Park Century School  
**North-South Street:** National Bl  
**Scenario:** Existing  
**Count Date:** 1/0/1900

**East-West Street:** Venice

**Analyst:** <Fehr & Peers>

		MD		
No. of Phases				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB-- 0	0
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0	WB-- 0	0
Override Capacity				2
				0
MOVEMENT		Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	235	1	235
	Left-Through		0	
	Through	528	1	299
	Through-Right		1	
	Right	69	0	69
	Left-Through-Right		0	
	Left-Right		0	
SOUTHBOUND	Left	154	1	154
	Left-Through		0	
	Through	594	1	328
	Through-Right		1	
	Right	62	0	62
	Left-Through-Right		0	
	Left-Right		0	
EASTBOUND	Left	116	2	64
	Left-Through		0	
	Through	1374	3	458
	Through-Right		0	
	Right	290	1	173
	Left-Through-Right		0	
	Left-Right		0	
WESTBOUND	Left	68	1	68
	Left-Through		0	
	Through	1171	3	390
	Through-Right		0	
	Right	64	1	0
	Left-Through-Right		0	
	Left-Right		0	
CRITICAL VOLUMES		North-South:		563
		East-West:		526
		SUM:		1089
VOLUME/CAPACITY (V/C) RATIO:				0.792
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.692
LEVEL OF SERVICE (LOS):				B

## Level of Service Worksheet (Circular 212 Method)



**I/S #:**  
**3**

**PROJECT TITLE:** Park Century School

**North-South Street:** Robertson Bl

**Scenario:** Existing

**Count Date:** 1/0/1900

**East-West Street:** Venice

**Analyst:** <Fehr & Peers>

		MD		
No. of Phases				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				1
Right Turns: FREE-1, NRTOR-2 or OLA-3?		<b>NB--</b> 0	<b>SB--</b> 0	0
ATSAC-1 or ATSAC+ATCS-2?		<b>EB--</b> 0	<b>WB--</b> 0	0
Override Capacity				2
				0
MOVEMENT		Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	79	1	79
	Left-Through		0	
	Through	233	2	117
	Through-Right		0	
	Right	66	1	29
	Left-Through-Right		0	
	Left-Right		0	
SOUTHBOUND	Left	284	1	284
	Left-Through		0	
	Through	249	1	249
	Through-Right		0	
	Right	356	1	267
	Left-Through-Right		0	
	Left-Right		0	
EASTBOUND	Left	324	2	178
	Left-Through		0	
	Through	1450	3	483
	Through-Right		0	
	Right	78	1	0
	Left-Through-Right		0	
	Left-Right		0	
WESTBOUND	Left	74	1	74
	Left-Through		0	
	Through	1332	3	444
	Through-Right		0	
	Right	184	1	42
	Left-Through-Right		0	
	Left-Right		0	
CRITICAL VOLUMES		<b>North-South:</b>		401
		<b>East-West:</b>		622
		<b>SUM:</b>		1023
VOLUME/CAPACITY (V/C) RATIO:				0.744
V/C LESS ATSAC/ATCS ADJUSTMENT:				<b>0.644</b>
LEVEL OF SERVICE (LOS):				<b>B</b>

**Project Title:** Park Century School  
**Intersection:** 4 - National BI & Washington BI  
**Description:** Existing

Thru Lane: 1600 vph  
 Left Lane: 1600 vph  
 Double Lt Penalty: 20 %  
 ITS: 7 %  
 OLA Movements :  
 FF Movements:

N-S Split Phase : N  
 E-W Split Phase : N  
 Lost Time (% of cycle) : 10  
 V/C Round Off (decs.) : 3

**Date/Time:** MD PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	35	0	0.000	N-S(1): 0.254
	TH	2.00	750	3,200	0.245 *	N-S(2): 0.308 *
	LT	2.00	158	2,560	0.062	E-W(1): 0.403 *
Westbound	RT	0.00	131	0	0.000	E-W(2): 0.176
	TH	3.00	556	4,800	0.143	V/C: 0.711
	LT	1.00	170	1,600	0.106 *	Lost Time: 0.100
Northbound	RT	1.00	99	1,600	0.009	ITS: -0.070
	TH	2.00	613	3,200	0.192	
	LT	2.00	160	2,560	0.063 *	
Eastbound	RT	1.00	272	1,600	0.139	ICU: 0.741
	TH	2.00	951	3,200	0.297 *	
	LT	1.00	52	1,600	0.033	LOS: C

**Project Title:** Park Century School  
**Intersection:** 5 - Landmark St & Washington Bl  
**Description:** Existing

Thru Lane: 1600 vph  
 Left Lane: 1600 vph  
 Double Lt Penalty: 20 %  
 ITS: 7 %

N-S Split Phase : N  
 E-W Split Phase : N  
 Lost Time (% of cycle) : 10  
 V/C Round Off (decs.) : 3

OLA Movements :  
 FF Movements:

**Date/Time:** MD PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.035
	TH	0.00	0	0	0.000 *	N-S(2):	0.069 *
	LT	0.00	0	0	0.000	E-W(1):	0.417 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.211
	TH	2.00	675	3,200	0.211	V/C:	0.486
	LT	1.00	69	1,600	0.043 *	Lost Time:	0.100
Northbound	RT	1.00	90	1,600	0.035	ITS:	-0.070
	TH	0.00	0	0	0.000		
	LT	1.00	110	1,600	0.069 *		
Eastbound	RT	0.00	63	0	0.000	ICU:	0.516
	TH	2.00	1,133	3,200	0.374 *		
	LT	0.00	0	0	0.000	LOS:	A

**Project Title:** Park Century School  
**Intersection:** 6 - Robertson BI & Washington BI  
**Description:** Existing

Thru Lane: 1600 vph  
 Left Lane: 1600 vph  
 Double Lt Penalty: 20 %  
 ITS: 7 %

OLA Movements :  
 FF Movements:

N-S Split Phase : N  
 E-W Split Phase : N  
 Lost Time (% of cycle) : 10  
 V/C Round Off (decs.) : 3

**Date/Time:** MD PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	79	1,600	0.021	N-S(1):	0.194 *
	TH	1.00	264	1,600	0.165	N-S(2):	0.183
	LT	1.00	148	1,600	0.093 *	E-W(1):	0.358 *
Westbound	RT	0.00	154	0	0.000	E-W(2):	0.283
	TH	2.00	565	3,200	0.225	V/C:	0.552
	LT	1.00	58	1,600	0.036 *	Lost Time:	0.100
Northbound	RT	1.00	75	1,600	0.029	ITS:	-0.070
	TH	1.00	161	1,600	0.101 *		
	LT	1.00	29	1,600	0.018		
Eastbound	RT	0.00	64	0	0.000	ICU:	0.582
	TH	2.00	965	3,200	0.322 *		
	LT	1.00	92	1,600	0.058	LOS:	A

**Project Title:** Park Century School  
**Intersection:** 7 - Washington Bl & Culver Bl  
**Description:** Existing

Thru Lane: 1600 vph  
 Left Lane: 1600 vph  
 Double Lt Penalty: 20 %  
 ITS: 7 %  
 OLA Movements :  
 FF Movements:

N-S Split Phase : N  
 E-W Split Phase : N  
 Lost Time (% of cycle) : 10  
 V/C Round Off (decs.) : 3

**Date/Time:** MD PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	32	1,600	0.020 *	N-S(1):	0.194
	TH	0.00	0	0	0.000	N-S(2):	0.263 *
	LT	0.00	0	0	0.000	E-W(1):	0.247 *
Westbound	RT	0.00	7	0	0.000	E-W(2):	0.087
	TH	2.00	236	3,200	0.076	V/C:	0.510
	LT	1.00	53	1,600	0.033 *	Lost Time:	0.100
Northbound	RT	1.00	70	1,600	0.027	ITS:	-0.070
	TH	0.06	19	98	0.194		
	LT	1.94	602	2,482	0.243 *		
Eastbound	RT	2.00	1,073	3,200	0.214 *	ICU:	0.540
	TH	2.00	613	3,200	0.192		
	LT	1.00	18	1,600	0.011	LOS:	A

**Project Title:** Park Century School  
**Intersection:** 8 - Main St & Culver Bl  
**Description:** Existing

Thru Lane: 1600 vph  
 Left Lane: 1600 vph  
 Double Lt Penalty: 20 %  
 ITS: 7 %

OLA Movements :  
 FF Movements:

N-S Split Phase : N  
 E-W Split Phase : N  
 Lost Time (% of cycle) : 10  
 V/C Round Off (decs.) : 3

**Date/Time:** MD PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	137	1,600	0.046	N-S(1):	0.132 *
	TH	0.02	4	32	0.126	N-S(2):	0.127
	LT	0.98	197	1,568	0.126 *	E-W(1):	0.474 *
Westbound	RT	0.00	46	0	0.000	E-W(2):	0.346
	TH	2.00	809	3,200	0.267	V/C:	0.606
	LT	1.00	10	1,600	0.006 *	Lost Time:	0.100
Northbound	RT	0.00	3	0	0.000	ITS:	-0.070
	TH	1.00	5	1,600	0.006 *	ICU:	0.636
	LT	0.00	1	1,600	0.001	LOS:	B
Eastbound	RT	0.00	0	0	0.000		
	TH	2.00	1,498	3,200	0.468 *		
	LT	1.00	127	1,600	0.079		

**EXISTING + PROJECT**

# Level of Service Worksheet (Circular 212 Method)



I/S #: **1**

**PROJECT TITLE:** Park Century School  
**North-South Street:** Robertson Bl  
**Scenario:** Existing plus Project  
**Count Date:** 1/0/1900

**East-West Street:** National Bl

**Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
		No. of Phases			No. of Phases		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				4			4
Right Turns: FREE-1, NRTOR-2 or OLA-3?				0			0
ATSAC-1 or ATSAC+ATCS-2?				0			0
Override Capacity				3			3
				2			2
				0			0
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	72	1	72	35	1	35
	Left-Through		0			0	
	Through	687	1	372	443	1	274
	Through-Right		1			1	
	Right	57	0	57	104	0	104
	Left-Through-Right		0			0	
SOUTHBOUND	Left	530	2	292	631	2	347
	Left-Through		0			0	
	Through	859	1	497	898	1	544
	Through-Right		1			1	
	Right	134	0	134	189	0	189
	Left-Through-Right		0			0	
EASTBOUND	Left	245	1	245	126	1	126
	Left-Through		0			0	
	Through	510	1	374	916	1	503
	Through-Right		1			1	
	Right	237	0	237	90	0	90
	Left-Through-Right		0			0	
WESTBOUND	Left	160	1	160	94	1	94
	Left-Through		0			0	
	Through	435	1	435	264	1	264
	Through-Right		0			0	
	Right	475	1	183	287	1	0
	Left-Through-Right		0			0	
CRITICAL VOLUMES		North-South:		664	North-South:		621
		East-West:		680	East-West:		597
		SUM:		1344	SUM:		1218
VOLUME/CAPACITY (V/C) RATIO:				0.977			0.886
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.877			0.786
LEVEL OF SERVICE (LOS):				D			C

# Level of Service Worksheet (Circular 212 Method)



I/S #: **2**

**PROJECT TITLE:** Park Century School  
**North-South Street:** National Bl  
**Scenario:** Existing plus Project  
**Count Date:** 1/0/1900

**East-West Street:** Venice Bl

**Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases		4			4		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0			0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB-- 0		NB-- 0	SB-- 0	
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0	WB-- 0		EB-- 0	WB-- 0	
Override Capacity		2			2		
		0			0		
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	281	1	281	236	1	236
	Left-Through		0			0	
	Through	677	1	359	542	1	330
	Through-Right		1			1	
	Right	41	0	41	118	0	118
	Left-Through-Right		0			0	
SOUTHBOUND	Left	70	1	70	125	1	125
	Left-Through		0			0	
	Through	443	1	274	636	1	354
	Through-Right		1			1	
	Right	104	0	104	72	0	72
	Left-Through-Right		0			0	
EASTBOUND	Left	174	2	96	222	2	122
	Left-Through		0			0	
	Through	1391	3	464	1533	3	511
	Through-Right		0			0	
	Right	327	1	187	217	1	99
	Left-Through-Right		0			0	
WESTBOUND	Left	54	1	54	66	1	66
	Left-Through		0			0	
	Through	1136	3	379	1404	3	468
	Through-Right		0			0	
	Right	75	1	40	57	1	0
	Left-Through-Right		0			0	
CRITICAL VOLUMES		North-South: 555			North-South: 590		
		East-West: 518			East-West: 590		
		SUM: 1073			SUM: 1180		
VOLUME/CAPACITY (V/C) RATIO:		0.780			0.858		
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.680			0.758		
LEVEL OF SERVICE (LOS):		B			C		

# Level of Service Worksheet (Circular 212 Method)



I/S #: **3**

**PROJECT TITLE:** Park Century School  
**North-South Street:** Robertson Bl  
**Scenario:** Existing plus Project  
**Count Date:** 1/0/1900

**East-West Street:** Venice Bl

**Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				1			1
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB-- 0	0	NB-- 0	SB-- 0	0
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0	WB-- 0	0	EB-- 0	WB-- 0	0
Override Capacity				2			2
				0			0
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	141	1	141	80	1	80
	Left-Through		0			0	
	Through	445	2	223	350	2	175
	Through-Right		0			0	
	Right	43	1	20	152	1	117
	Left-Through-Right		0			0	
SOUTHBOUND	Left	250	1	250	188	1	188
	Left-Through		0			0	
	Through	339	1	339	164	1	164
	Through-Right		0			0	
	Right	395	1	294	390	1	312
	Left-Through-Right		0			0	
EASTBOUND	Left	369	2	203	285	2	157
	Left-Through		0			0	
	Through	1602	3	534	1655	3	552
	Through-Right		0			0	
	Right	89	1	19	86	1	46
	Left-Through-Right		0			0	
WESTBOUND	Left	47	1	47	71	1	71
	Left-Through		0			0	
	Through	1355	3	452	1615	3	538
	Through-Right		0			0	
	Right	191	1	66	176	1	82
	Left-Through-Right		0			0	
CRITICAL VOLUMES		North-South:		562	North-South:		487
		East-West:		655	East-West:		695
		SUM:		1217	SUM:		1182
VOLUME/CAPACITY (V/C) RATIO:				0.885			0.860
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.785			0.760
LEVEL OF SERVICE (LOS):				C			C

**Project Title:** Park Century School  
**Intersection:** 4 - National BI & Washington BI  
**Description:** Existing plus Project

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 20 %  
ITS: 7 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	86	0	0.000	N-S(1): 0.241
	TH	2.00	654	3,200	0.231 *	N-S(2): 0.296 *
	LT	2.00	81	2,560	0.032	E-W(1): 0.347 *
Westbound	RT	0.00	277	0	0.000	E-W(2): 0.343
	TH	3.00	1,148	4,800	0.297	V/C: 0.643
	LT	1.00	242	1,600	0.151 *	Lost Time: 0.100
Northbound	RT	1.00	44	1,600	0.000	ITS: -0.070
	TH	2.00	668	3,200	0.209	
	LT	2.00	167	2,560	0.065 *	
Eastbound	RT	1.00	200	1,600	0.092	ICU: 0.673
	TH	2.00	626	3,200	0.196 *	
	LT	1.00	73	1,600	0.046	LOS: B

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	55	0	0.000	N-S(1): 0.278
	TH	2.00	750	3,200	0.252 *	N-S(2): 0.325 *
	LT	2.00	168	2,560	0.066	E-W(1): 0.421 *
Westbound	RT	0.00	125	0	0.000	E-W(2): 0.183
	TH	3.00	541	4,800	0.139	V/C: 0.746
	LT	1.00	160	1,600	0.100 *	Lost Time: 0.100
Northbound	RT	1.00	170	1,600	0.056	ITS: -0.070
	TH	2.00	679	3,200	0.212	
	LT	2.00	186	2,560	0.073 *	
Eastbound	RT	1.00	263	1,600	0.128	ICU: 0.776
	TH	2.00	1,028	3,200	0.321 *	
	LT	1.00	71	1,600	0.044	LOS: C

\* - Denotes critical movement

**Project Title:** Park Century School  
**Intersection:** 5 - Landmark St & Washington Bl  
**Description:** Existing plus Project

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 20 %  
ITS: 7 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	0	0	0.000	N-S(1): 0.013
	TH	0.00	0	0	0.000 *	N-S(2): 0.058 *
	LT	0.00	0	0	0.000	E-W(1): 0.369
Westbound	RT	0.00	0	0	0.000	E-W(2): 0.411 *
	TH	2.00	1,316	3,200	0.411 *	V/C: 0.469
	LT	1.00	119	1,600	0.074	Lost Time: 0.100
Northbound	RT	1.00	80	1,600	0.013	ITS: -0.070
	TH	0.00	0	0	0.000	
	LT	1.00	92	1,600	0.058 *	
Eastbound	RT	0.00	147	0	0.000	ICU: 0.499
	TH	2.00	798	3,200	0.295	
	LT	0.00	0	0	0.000 *	LOS: A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	0	0	0.000	N-S(1): 0.053 *
	TH	0.00	0	0	0.000	N-S(2): 0.052
	LT	0.00	0	0	0.000 *	E-W(1): 0.434 *
Westbound	RT	0.00	0	0	0.000	E-W(2): 0.214
	TH	2.00	681	3,200	0.213	V/C: 0.487
	LT	1.00	70	1,600	0.044 *	Lost Time: 0.100
Northbound	RT	1.00	120	1,600	0.053 *	ITS: -0.070
	TH	0.00	0	0	0.000	
	LT	1.00	83	1,600	0.052	
Eastbound	RT	0.00	56	0	0.000	ICU: 0.517
	TH	2.00	1,190	1,600	0.390 *	
	LT	0.00	1	1,600	0.001	LOS: A

\* - Denotes critical movement

**Project Title:** Park Century School  
**Intersection:** 6 - Robertson BI & Washington BI  
**Description:** Existing plus Project

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 20 %  
ITS: 7 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	63	1,600	0.015	N-S(1): 0.314 *
	TH	1.00	270	1,600	0.169	N-S(2): 0.190
	LT	1.00	144	1,600	0.090 *	E-W(1): 0.300
Westbound	RT	0.00	250	0	0.000	E-W(2): 0.470 *
	TH	2.00	1,098	3,200	0.421 *	V/C: 0.784
	LT	1.00	77	1,600	0.048	Lost Time: 0.100
Northbound	RT	1.00	84	1,600	0.028	ITS: -0.070
	TH	1.00	358	1,600	0.224 *	
	LT	1.00	34	1,600	0.021	
Eastbound	RT	0.00	85	0	0.000	ICU: 0.814
	TH	2.00	721	3,200	0.252	
	LT	1.00	79	1,600	0.049 *	LOS: D

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	56	1,600	0.000	N-S(1): 0.240 *
	TH	1.00	244	1,600	0.153	N-S(2): 0.176
	LT	1.00	96	1,600	0.060 *	E-W(1): 0.372 *
Westbound	RT	0.00	152	0	0.000	E-W(2): 0.352
	TH	2.00	647	3,200	0.250	V/C: 0.612
	LT	1.00	74	1,600	0.046 *	Lost Time: 0.100
Northbound	RT	1.00	80	1,600	0.027	ITS: -0.070
	TH	1.00	288	1,600	0.180 *	
	LT	1.00	37	1,600	0.023	
Eastbound	RT	0.00	92	0	0.000	ICU: 0.642
	TH	2.00	952	3,200	0.326 *	
	LT	1.00	163	1,600	0.102	LOS: B

\* - Denotes critical movement

**Project Title:** Park Century School  
**Intersection:** 7 - Washington Bl & Culver Bl  
**Description:** Existing plus Project

Thru Lane: 1600 vph  
 Left Lane: 1600 vph  
 Double Lt Penalty: 20 %  
 ITS: 7 %

OLA Movements :  
 FF Movements:

N-S Split Phase : N  
 E-W Split Phase : N  
 Lost Time (% of cycle) : 10  
 V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	4	1,600	0.003 *	N-S(1): 0.410
	TH	0.00	0	0	0.000	N-S(2): 0.515 *
	LT	0.00	0	0	0.000	E-W(1): 0.248 *
Westbound	RT	0.00	3	0	0.000	E-W(2): 0.085
	TH	2.00	222	3,200	0.070	V/C: 0.763
	LT	1.00	31	1,600	0.019 *	Lost Time: 0.100
Northbound	RT	1.00	72	1,600	0.035	ITS: -0.070
	TH	0.16	107	261	0.410	
	LT	1.84	1,204	2,351	0.512 *	
Eastbound	RT	2.00	763	3,200	0.000	ICU: 0.793
	TH	2.00	732	3,200	0.229 *	
	LT	1.00	24	1,600	0.015	LOS: C

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	32	1,600	0.020 *	N-S(1): 0.238
	TH	0.00	0	0	0.000	N-S(2): 0.317 *
	LT	0.00	0	0	0.000	E-W(1): 0.291 *
Westbound	RT	0.00	24	0	0.000	E-W(2): 0.113
	TH	2.00	308	3,200	0.104	V/C: 0.608
	LT	1.00	31	1,600	0.019 *	Lost Time: 0.100
Northbound	RT	1.00	92	1,600	0.048	ITS: -0.070
	TH	0.08	29	122	0.238	
	LT	1.92	731	2,462	0.297 *	
Eastbound	RT	2.00	1,110	3,200	0.198	ICU: 0.638
	TH	2.00	871	3,200	0.272 *	
	LT	1.00	15	1,600	0.009	LOS: B

\* - Denotes critical movement

**Project Title:** Park Century School  
**Intersection:** 8 - Main St & Culver Bl  
**Description:** Existing plus Project

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 20 %  
ITS: 7 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	152	1,600	0.029	N-S(1):	0.061 *
	TH	0.00	0	0	0.000	N-S(2):	0.029
	LT	1.00	96	1,600	0.060 *	E-W(1):	0.450
Westbound	RT	0.00	102	0	0.000	E-W(2):	0.578 *
	TH	2.00	1,327	3,200	0.447 *	V/C:	0.639
	LT	1.00	1	1,600	0.001	Lost Time:	0.100
Northbound	RT	0.00	1	0	0.000	ITS:	-0.070
	TH	1.00	0	1,600	0.001 *	ICU:	0.669
	LT	0.00	0	0	0.000	LOS:	B
Eastbound	RT	0.00	1	0	0.000		
	TH	2.00	1,435	3,200	0.449		
	LT	1.00	210	1,600	0.131 *		

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	199	1,600	0.090	N-S(1):	0.139 *
	TH	0.00	0	0	0.000	N-S(2):	0.090
	LT	1.00	221	1,600	0.138 *	E-W(1):	0.553 *
Westbound	RT	0.00	72	0	0.000	E-W(2):	0.399
	TH	2.00	983	3,200	0.330	V/C:	0.692
	LT	1.00	5	1,600	0.003 *	Lost Time:	0.100
Northbound	RT	0.00	0	0	0.000	ITS:	-0.070
	TH	1.00	2	1,600	0.001 *	ICU:	0.722
	LT	0.00	0	0	0.000	LOS:	C
Eastbound	RT	0.00	0	0	0.000		
	TH	2.00	1,761	3,200	0.550 *		
	LT	1.00	111	1,600	0.069		

\* - Denotes critical movement

## Level of Service Worksheet (Circular 212 Method)



**I/S #:**  
**1**

**PROJECT TITLE:** Park Century School

**North-South Street:** Robertson Bl

**East-West Street:** National Bl

**Scenario:** Existing Plus Project

**Count Date:** 1/0/1900

**Analyst:** <Fehr & Peers>

		MD		
		No. of Phases		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				4
Right Turns: FREE-1, NRTOR-2 or OLA-3?				0
ATSAC-1 or ATSAC+ATCS-2?				0
Override Capacity				3
				2
				0
MOVEMENT		Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	42	1	42
	Left-Through		0	
	Through	437	1	243
	Through-Right		1	
	Right	48	0	48
	Left-Through-Right		0	
	Left-Right		0	
SOUTHBOUND	Left	612	2	337
	Left-Through		0	
	Through	757	1	469
	Through-Right		1	
	Right	180	0	180
	Left-Through-Right		0	
	Left-Right		0	
EASTBOUND	Left	161	1	161
	Left-Through		0	
	Through	809	1	463
	Through-Right		1	
	Right	117	0	117
	Left-Through-Right		0	
	Left-Right		0	
WESTBOUND	Left	99	1	99
	Left-Through		0	
	Through	290	1	290
	Through-Right		0	
	Right	276	1	0
	Left-Through-Right		0	
	Left-Right		0	
CRITICAL VOLUMES		North-South:		580
		East-West:		562
		SUM:		1142
VOLUME/CAPACITY (V/C) RATIO:				0.831
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.731
LEVEL OF SERVICE (LOS):				C

## Level of Service Worksheet (Circular 212 Method)



**I/S #:**  
**2**

**PROJECT TITLE:** Park Century School  
**North-South Street:** National Bl  
**Scenario:** Existing Plus Project  
**Count Date:** 1/0/1900

**East-West Street:** Venice Bl

**Analyst:** <Fehr & Peers>

		MD		
		No. of Phases		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				4
Right Turns: FREE-1, NRTOR-2 or OLA-3?				0
ATSAC-1 or ATSAC+ATCS-2?				0
Override Capacity				0
MOVEMENT		Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	235	1	235
	Left-Through		0	
	Through	530	1	300
	Through-Right		1	
	Right	70	0	70
	Left-Through-Right		0	
	Left-Right		0	
SOUTHBOUND	Left	154	1	154
	Left-Through		0	
	Through	598	1	330
	Through-Right		1	
	Right	62	0	62
	Left-Through-Right		0	
	Left-Right		0	
EASTBOUND	Left	116	2	64
	Left-Through		0	
	Through	1374	3	458
	Through-Right		0	
	Right	290	1	173
	Left-Through-Right		0	
	Left-Right		0	
WESTBOUND	Left	70	1	70
	Left-Through		0	
	Through	1171	3	390
	Through-Right		0	
	Right	64	1	0
	Left-Through-Right		0	
	Left-Right		0	
CRITICAL VOLUMES		North-South:		565
		East-West:		528
		SUM:		1093
VOLUME/CAPACITY (V/C) RATIO:				0.795
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.695
LEVEL OF SERVICE (LOS):				B

## Level of Service Worksheet (Circular 212 Method)



**I/S #:**  
**3**

**PROJECT TITLE:** Park Century School  
**North-South Street:** Robertson Bl  
**Scenario:** Existing Plus Project  
**Count Date:** 1/0/1900

**East-West Street:** Venice Bl

**Analyst:** <Fehr & Peers>

		MD		
		No. of Phases		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				4
Right Turns: FREE-1, NRTOR-2 or OLA-3?				1
ATSAC-1 or ATSAC+ATCS-2?				0
Override Capacity				0
MOVEMENT		Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	80	1	80
	Left-Through		0	
	Through	237	2	119
	Through-Right		0	
	Right	66	1	29
	Left-Through-Right		0	
	Left-Right		0	
SOUTHBOUND	Left	284	1	284
	Left-Through		0	
	Through	256	1	256
	Through-Right		0	
	Right	356	1	267
	Left-Through-Right		0	
	Left-Right		0	
EASTBOUND	Left	324	2	178
	Left-Through		0	
	Through	1450	3	483
	Through-Right		0	
	Right	79	1	39
	Left-Through-Right		0	
	Left-Right		0	
WESTBOUND	Left	74	1	74
	Left-Through		0	
	Through	1332	3	444
	Through-Right		0	
	Right	184	1	42
	Left-Through-Right		0	
	Left-Right		0	
CRITICAL VOLUMES		North-South:		403
		East-West:		622
		SUM:		1025
VOLUME/CAPACITY (V/C) RATIO:				0.745
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.645
LEVEL OF SERVICE (LOS):				B

**Project Title:** Park Century School  
**Intersection:** 4 - National BI & Washington BI  
**Description:** Existing plus Project

Thru Lane: 1600 vph  
 Left Lane: 1600 vph  
 Double Lt Penalty: 20 %  
 ITS: 7 %

OLA Movements :  
 FF Movements:

N-S Split Phase : N  
 E-W Split Phase : N  
 Lost Time (% of cycle) : 10  
 V/C Round Off (decs.) : 3

**Date/Time:** MD PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	41	0	0.000	N-S(1):	0.254
	TH	2.00	750	3,200	0.247 *	N-S(2):	0.310 *
	LT	2.00	158	2,560	0.062	E-W(1):	0.404 *
Westbound	RT	0.00	131	0	0.000	E-W(2):	0.178
	TH	3.00	558	4,800	0.144	V/C:	0.714
	LT	1.00	170	1,600	0.106 *	Lost Time:	0.100
Northbound	RT	1.00	99	1,600	0.009	ITS:	-0.070
	TH	2.00	613	3,200	0.192		
	LT	2.00	161	2,560	0.063 *		
Eastbound	RT	1.00	274	1,600	0.140	ICU:	0.744
	TH	2.00	954	3,200	0.298 *		
	LT	1.00	55	1,600	0.034	LOS:	C

**Project Title:** Park Century School  
**Intersection:** 5 - Landmark St & Washington Bl  
**Description:** Existing plus Project

Thru Lane: 1600 vph  
 Left Lane: 1600 vph  
 Double Lt Penalty: 20 %  
 ITS: 7 %

OLA Movements :  
 FF Movements:

N-S Split Phase : N  
 E-W Split Phase : N  
 Lost Time (% of cycle) : 10  
 V/C Round Off (decs.) : 3

**Date/Time:** MD PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.038
	TH	0.00	0	0	0.000 *	N-S(2):	0.074 *
	LT	0.00	0	0	0.000	E-W(1):	0.427 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.211
	TH	2.00	675	3,200	0.211	V/C:	0.501
	LT	1.00	78	1,600	0.049 *	Lost Time:	0.100
Northbound	RT	1.00	99	1,600	0.038	ITS:	-0.070
	TH	0.00	0	0	0.000		
	LT	1.00	119	1,600	0.074 *		
Eastbound	RT	0.00	76	0	0.000	ICU:	0.531
	TH	2.00	1,133	3,200	0.378 *		
	LT	0.00	0	0	0.000	LOS:	A

**Project Title:** Park Century School  
**Intersection:** 6 - Robertson BI & Washington BI  
**Description:** Existing plus Project

Thru Lane: 1600 vph  
 Left Lane: 1600 vph  
 Double Lt Penalty: 20 %  
 ITS: 7 %  
 OLA Movements :  
 FF Movements:

N-S Split Phase : N  
 E-W Split Phase : N  
 Lost Time (% of cycle) : 10  
 V/C Round Off (decs.) : 3

**Date/Time:** MD PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	79	1,600	0.021	N-S(1):	0.199 *
	TH	1.00	264	1,600	0.165	N-S(2):	0.183
	LT	1.00	156	1,600	0.098 *	E-W(1):	0.359 *
Westbound	RT	0.00	159	0	0.000	E-W(2):	0.285
	TH	2.00	568	3,200	0.227	V/C:	0.558
	LT	1.00	58	1,600	0.036 *	Lost Time:	0.100
Northbound	RT	1.00	75	1,600	0.029	ITS:	-0.070
	TH	1.00	161	1,600	0.101 *		
	LT	1.00	29	1,600	0.018		
Eastbound	RT	0.00	64	0	0.000	ICU:	0.588
	TH	2.00	971	3,200	0.323 *		
	LT	1.00	92	1,600	0.058	LOS:	A

**Project Title:** Park Century School  
**Intersection:** 7 - Washington Bl & Culver Bl  
**Description:** Existing plus Project

Thru Lane: 1600 vph  
 Left Lane: 1600 vph  
 Double Lt Penalty: 20 %  
 ITS: 7 %

OLA Movements :  
 FF Movements:

N-S Split Phase : N  
 E-W Split Phase : N  
 Lost Time (% of cycle) : 10  
 V/C Round Off (decs.) : 3

**Date/Time:** MD PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	32	1,600	0.020 *	N-S(1):	0.195
	TH	0.00	0	0	0.000	N-S(2):	0.264 *
	LT	0.00	0	0	0.000	E-W(1):	0.248 *
Westbound	RT	0.00	7	0	0.000	E-W(2):	0.087
	TH	2.00	236	3,200	0.076	V/C:	0.512
	LT	1.00	53	1,600	0.033 *	Lost Time:	0.100
Northbound	RT	1.00	70	1,600	0.027	ITS:	-0.070
	TH	0.06	19	97	0.195		
	LT	1.94	605	2,482	0.244 *		
Eastbound	RT	2.00	1,079	3,200	0.215 *	ICU:	0.542
	TH	2.00	613	3,200	0.192		
	LT	1.00	18	1,600	0.011	LOS:	A

**Project Title:** Park Century School  
**Intersection:** 8 - Main St & Culver Bl  
**Description:** Existing plus Project

Thru Lane: 1600 vph  
 Left Lane: 1600 vph  
 Double Lt Penalty: 20 %  
 ITS: 7 %  
 OLA Movements :  
 FF Movements:

N-S Split Phase : N  
 E-W Split Phase : N  
 Lost Time (% of cycle) : 10  
 V/C Round Off (decs.) : 3

**Date/Time:** MD PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	137	1,600	0.046	N-S(1):	0.133 *
	TH	0.02	4	32	0.127	N-S(2):	0.128
	LT	0.98	199	1,568	0.127 *	E-W(1):	0.475 *
Westbound	RT	0.00	47	0	0.000	E-W(2):	0.347
	TH	2.00	812	3,200	0.268	V/C:	0.608
	LT	1.00	10	1,600	0.006 *	Lost Time:	0.100
Northbound	RT	0.00	3	0	0.000	ITS:	-0.070
	TH	1.00	5	1,600	0.006 *	ICU:	0.638
	LT	0.00	1	1,600	0.001	LOS:	B
Eastbound	RT	0.00	0	0	0.000		
	TH	2.00	1,501	3,200	0.469 *		
	LT	1.00	127	1,600	0.079		

**FUTURE BASE**

# Level of Service Worksheet (Circular 212 Method)



I/S #: **1**

**PROJECT TITLE:** Park Century School  
**North-South Street:** Robertson Bl  
**Scenario:** Future Base  
**Count Date:** 1/0/1900

**East-West Street:** National Bl

**Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases		4			4		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0			0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB-- 0		NB-- 0	SB-- 0	
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0	WB-- 3		EB-- 0	WB-- 3	
Override Capacity		2			2		
		0			0		
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	73	1	73	35	1	35
	Left-Through		0			0	
	Through	749	1	404	549	1	327
	Through-Right		1			1	
	Right	58	0	58	105	0	105
	Left-Through-Right		0			0	
SOUTHBOUND	Left	611	2	336	703	2	387
	Left-Through		0			0	
	Through	1029	1	582	1020	1	606
	Through-Right		1			1	
	Right	135	0	135	191	0	191
	Left-Through-Right		0			0	
EASTBOUND	Left	247	1	247	127	1	127
	Left-Through		0			0	
	Through	513	1	376	925	1	508
	Through-Right		1			1	
	Right	239	0	239	91	0	91
	Left-Through-Right		0			0	
WESTBOUND	Left	162	1	162	95	1	95
	Left-Through		0			0	
	Through	437	1	437	266	1	266
	Through-Right		0			0	
	Right	485	1	149	307	1	0
	Left-Through-Right		0			0	
CRITICAL VOLUMES		North-South: 740			North-South: 714		
		East-West: 684			East-West: 603		
		SUM: 1424			SUM: 1317		
VOLUME/CAPACITY (V/C) RATIO:		1.036			0.958		
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.936			0.858		
LEVEL OF SERVICE (LOS):		E			D		

# Level of Service Worksheet (Circular 212 Method)



I/S #: **2**

**PROJECT TITLE:** Park Century School  
**North-South Street:** National Bl  
**Scenario:** Future Base  
**Count Date:** 1/0/1900

**East-West Street:** Venice Bl

**Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases		4			4		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0			0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB-- 0		NB-- 0	SB-- 0	
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0	WB-- 0		EB-- 0	WB-- 0	
Override Capacity		2			2		
		0			0		
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	311	1	311	281	1	281
	Left-Through		0			0	
	Through	738	1	428	649	1	420
	Through-Right		1			1	
	Right	117	0	117	190	0	190
	Left-Through-Right		0			0	
SOUTHBOUND	Left-Right		0			0	
	Left	131	1	131	172	1	172
	Left-Through		0			0	
	Through	462	1	284	662	1	368
	Through-Right		1			1	
	Right	105	0	105	73	0	73
EASTBOUND	Left-Through-Right		0			0	
	Left-Right		0			0	
	Left	192	2	106	251	2	138
	Left-Through		0			0	
	Through	1542	3	514	1684	3	561
	Through-Right		0			0	
WESTBOUND	Right	356	1	201	268	1	128
	Left-Through-Right		0			0	
	Left-Right		0			0	
	Left	103	1	103	149	1	149
	Left-Through		0			0	
	Through	1245	3	415	1551	3	517
CRITICAL VOLUMES	Through-Right		0			0	
	Right	108	1	43	116	1	30
	Left-Through-Right		0			0	
	Left-Right		0			0	
	North-South:			595	North-South:		649
	East-West:			617	East-West:		710
SUM:				1212	SUM:		1359
VOLUME/CAPACITY (V/C) RATIO:				0.881			0.988
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.781			0.888
LEVEL OF SERVICE (LOS):				C			D



# Level of Service Worksheet (Circular 212 Method)



I/S #: **3**

**PROJECT TITLE:** Park Century School  
**North-South Street:** Robertson Bl  
**Scenario:** Future Base  
**Count Date:** 1/0/1900

**East-West Street:** Venice Bl

**Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				1			1
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB-- 0	0	NB-- 0	SB-- 0	0
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0	WB-- 0	0	EB-- 0	WB-- 0	0
Override Capacity				2			2
				0			0
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	148	1	148	97	1	97
	Left-Through		0			0	
	Through	531	2	266	511	2	256
	Through-Right		0			0	
	Right	84	1	44	222	1	177
	Left-Through-Right		0			0	
SOUTHBOUND	Left	347	1	347	276	1	276
	Left-Through		0			0	
	Through	469	1	469	262	1	262
	Through-Right		0			0	
	Right	422	1	312	431	1	343
	Left-Through-Right		0			0	
EASTBOUND	Left	400	2	220	320	2	176
	Left-Through		0			0	
	Through	1662	3	554	1728	3	576
	Through-Right		0			0	
	Right	99	1	25	101	1	53
	Left-Through-Right		0			0	
WESTBOUND	Left	80	1	80	90	1	90
	Left-Through		0			0	
	Through	1404	3	468	1689	3	563
	Through-Right		0			0	
	Right	250	1	77	277	1	139
	Left-Through-Right		0			0	
CRITICAL VOLUMES		North-South:		735	North-South:		599
		East-West:		688	East-West:		739
		SUM:		1423	SUM:		1338
VOLUME/CAPACITY (V/C) RATIO:				1.035			0.973
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.935			0.873
LEVEL OF SERVICE (LOS):				E			D

**Project Title:** Park Century School  
**Intersection:** 4 - National BI & Washington BI  
**Description:** Future Base

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 20 %  
ITS: 7 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	96	0	0.000	N-S(1): 0.275
	TH	2.00	707	3,200	0.251 *	N-S(2): 0.333 *
	LT	2.00	115	2,560	0.045	E-W(1): 0.375
Westbound	RT	0.00	312	0	0.000	E-W(2): 0.405 *
	TH	3.00	1,212	4,800	0.318 *	V/C: 0.738
	LT	1.00	252	1,600	0.158	Lost Time: 0.100
Northbound	RT	1.00	50	1,600	0.000	ITS: -0.070
	TH	2.00	736	3,200	0.230	
	LT	2.00	211	2,560	0.082 *	
Eastbound	RT	1.00	232	1,600	0.104	ICU: 0.768
	TH	2.00	695	3,200	0.217	
	LT	1.00	139	1,600	0.087 *	LOS: C

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	79	0	0.000	N-S(1): 0.318
	TH	2.00	848	3,200	0.290 *	N-S(2): 0.376 *
	LT	2.00	205	2,560	0.080	E-W(1): 0.456 *
Westbound	RT	0.00	167	0	0.000	E-W(2): 0.271
	TH	3.00	616	4,800	0.163	V/C: 0.832
	LT	1.00	172	1,600	0.108 *	Lost Time: 0.100
Northbound	RT	1.00	184	1,600	0.061	ITS: -0.070
	TH	2.00	760	3,200	0.238	
	LT	2.00	219	2,560	0.086 *	
Eastbound	RT	1.00	325	1,600	0.160	ICU: 0.862
	TH	2.00	1,113	3,200	0.348 *	
	LT	1.00	172	1,600	0.108	LOS: D

\* - Denotes critical movement

**Project Title:** Park Century School  
**Intersection:** 5 - Landmark St & Washington Bl  
**Description:** Future Base

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 20 %  
ITS: 7 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	0	0	0.000	N-S(1): 0.007
	TH	0.00	0	0	0.000 *	N-S(2): 0.048 *
	LT	0.00	0	0	0.000	E-W(1): 0.414
Westbound	RT	0.00	0	0	0.000	E-W(2): 0.452 *
	TH	2.00	1,446	3,200	0.452 *	V/C: 0.500
	LT	1.00	108	1,600	0.068	Lost Time: 0.100
Northbound	RT	1.00	65	1,600	0.007	ITS: -0.070
	TH	0.00	0	0	0.000	
	LT	1.00	77	1,600	0.048 *	
Eastbound	RT	0.00	130	0	0.000	ICU: 0.530
	TH	2.00	978	3,200	0.346	
	LT	0.00	0	0	0.000 *	LOS: A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	0	0	0.000	N-S(1): 0.051 *
	TH	0.00	0	0	0.000	N-S(2): 0.049
	LT	0.00	0	0	0.000 *	E-W(1): 0.510 *
Westbound	RT	0.00	0	0	0.000	E-W(2): 0.256
	TH	2.00	815	3,200	0.255	V/C: 0.561
	LT	1.00	68	1,600	0.043 *	Lost Time: 0.100
Northbound	RT	1.00	115	1,600	0.051 *	ITS: -0.070
	TH	0.00	0	0	0.000	
	LT	1.00	78	1,600	0.049	
Eastbound	RT	0.00	52	0	0.000	ICU: 0.591
	TH	2.00	1,441	1,600	0.467 *	
	LT	0.00	1	1,600	0.001	LOS: A

\* - Denotes critical movement

**Project Title:** Park Century School  
**Intersection:** 6 - Robertson BI & Washington BI  
**Description:** Future Base

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 20 %  
ITS: 7 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	191	1,600	0.067	N-S(1): 0.323 *
	TH	1.00	273	1,600	0.171	N-S(2): 0.192
	LT	1.00	155	1,600	0.097 *	E-W(1): 0.352
Westbound	RT	0.00	254	0	0.000	E-W(2): 0.558 *
	TH	2.00	1,199	3,200	0.454 *	V/C: 0.881
	LT	1.00	78	1,600	0.049	Lost Time: 0.100
Northbound	RT	1.00	85	1,600	0.029	ITS: -0.070
	TH	1.00	362	1,600	0.226 *	
	LT	1.00	34	1,600	0.021	
Eastbound	RT	0.00	86	0	0.000	ICU: 0.911
	TH	2.00	882	3,200	0.303	
	LT	1.00	167	1,600	0.104 *	LOS: E

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	100	1,600	0.000	N-S(1): 0.255 *
	TH	1.00	247	1,600	0.154	N-S(2): 0.177
	LT	1.00	116	1,600	0.073 *	E-W(1): 0.441
Westbound	RT	0.00	180	0	0.000	E-W(2): 0.491 *
	TH	2.00	758	3,200	0.293 *	V/C: 0.746
	LT	1.00	75	1,600	0.047	Lost Time: 0.100
Northbound	RT	1.00	81	1,600	0.027	ITS: -0.070
	TH	1.00	291	1,600	0.182 *	
	LT	1.00	37	1,600	0.023	
Eastbound	RT	0.00	93	0	0.000	ICU: 0.776
	TH	2.00	1,167	3,200	0.394	
	LT	1.00	317	1,600	0.198 *	LOS: C

\* - Denotes critical movement

**Project Title:** Park Century School  
**Intersection:** 7 - Washington Bl & Culver Bl  
**Description:** Future Base

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 20 %  
ITS: 7 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	5	1,600	0.003 *	N-S(1): 0.429
	TH	0.00	0	0	0.000	N-S(2): 0.540 *
	LT	0.00	0	0	0.000	E-W(1): 0.252 *
Westbound	RT	0.00	3	0	0.000	E-W(2): 0.104
	TH	2.00	243	3,200	0.077	V/C: 0.792
	LT	1.00	31	1,600	0.019 *	Lost Time: 0.100
Northbound	RT	1.00	73	1,600	0.036	ITS: -0.070
	TH	0.16	108	252	0.429	
	LT	1.84	1,266	2,359	0.537 *	
Eastbound	RT	2.00	859	3,200	0.000	ICU: 0.822
	TH	2.00	744	3,200	0.233 *	
	LT	1.00	43	1,600	0.027	LOS: D

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	35	1,600	0.022 *	N-S(1): 0.276
	TH	0.00	0	0	0.000	N-S(2): 0.367 *
	LT	0.00	0	0	0.000	E-W(1): 0.296 *
Westbound	RT	0.00	24	0	0.000	E-W(2): 0.138
	TH	2.00	342	3,200	0.114	V/C: 0.663
	LT	1.00	31	1,600	0.019 *	Lost Time: 0.100
Northbound	RT	1.00	93	1,600	0.048	ITS: -0.070
	TH	0.07	29	105	0.276	
	LT	1.93	855	2,476	0.345 *	
Eastbound	RT	2.00	1,200	3,200	0.202	ICU: 0.693
	TH	2.00	885	3,200	0.277 *	
	LT	1.00	38	1,600	0.024	LOS: B

\* - Denotes critical movement

**Project Title:** Park Century School  
**Intersection:** 8 - Main St & Culver Bl  
**Description:** Future Base

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 20 %  
ITS: 7 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	154	1,600	0.030	N-S(1): 0.060 *
	TH	0.00	0	0	0.000	N-S(2): 0.030
	LT	1.00	94	1,600	0.059 *	E-W(1): 0.490
Westbound	RT	0.00	101	0	0.000	E-W(2): 0.604 *
	TH	2.00	1,407	3,200	0.471 *	V/C: 0.664
	LT	1.00	1	1,600	0.001	Lost Time: 0.100
Northbound	RT	0.00	1	0	0.000	ITS: -0.070
	TH	1.00	0	1,600	0.001 *	
	LT	0.00	0	0	0.000	
Eastbound	RT	0.00	1	0	0.000	ICU: 0.694
	TH	2.00	1,563	3,200	0.489	
	LT	1.00	212	1,600	0.133 *	LOS: B

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	201	1,600	0.091	N-S(1): 0.140 *
	TH	0.00	0	0	0.000	N-S(2): 0.091
	LT	1.00	222	1,600	0.139 *	E-W(1): 0.590 *
Westbound	RT	0.00	72	0	0.000	E-W(2): 0.447
	TH	2.00	1,135	3,200	0.377	V/C: 0.730
	LT	1.00	5	1,600	0.003 *	Lost Time: 0.100
Northbound	RT	0.00	0	0	0.000	ITS: -0.070
	TH	1.00	2	1,600	0.001 *	
	LT	0.00	0	0	0.000	
Eastbound	RT	0.00	0	0	0.000	ICU: 0.760
	TH	2.00	1,877	3,200	0.587 *	
	LT	1.00	112	1,600	0.070	LOS: C

\* - Denotes critical movement

## Level of Service Worksheet (Circular 212 Method)



**I/S #:**  
**1**

**PROJECT TITLE:** Park Century School  
**North-South Street:** Robertson Bl  
**Scenario:** Future Base  
**Count Date:** 1/0/1900

**East-West Street:** National Bl

**Analyst:** <Fehr & Peers>

		MD		
No. of Phases				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		<b>NB--</b> 0	<b>SB--</b> 0	0
ATSAC-1 or ATSAC+ATCS-2?		<b>EB--</b> 0	<b>WB--</b> 3	3
Override Capacity				2
				0
MOVEMENT		Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	42	1	42
	Left-Through		0	
	Through	543	1	296
	Through-Right		1	
	Right	48	0	48
	Left-Through-Right		0	
	Left-Right		0	
SOUTHBOUND	Left	681	2	375
	Left-Through		0	
	Through	878	1	530
	Through-Right		1	
	Right	182	0	182
	Left-Through-Right		0	
	Left-Right		0	
EASTBOUND	Left	163	1	163
	Left-Through		0	
	Through	816	1	467
	Through-Right		1	
	Right	118	0	118
	Left-Through-Right		0	
	Left-Right		0	
WESTBOUND	Left	100	1	100
	Left-Through		0	
	Through	292	1	292
	Through-Right		0	
	Right	296	1	0
	Left-Through-Right		0	
	Left-Right		0	
CRITICAL VOLUMES		<b>North-South:</b>		671
		<b>East-West:</b>		567
		<b>SUM:</b>		1238
VOLUME/CAPACITY (V/C) RATIO:				0.900
V/C LESS ATSAC/ATCS ADJUSTMENT:				<b>0.800</b>
LEVEL OF SERVICE (LOS):				<b>D</b>

## Level of Service Worksheet (Circular 212 Method)



I/S #:  
**2**

**PROJECT TITLE:** Park Century School  
**North-South Street:** National Bl  
**Scenario:** Future Base  
**Count Date:** 1/0/1900

**East-West Street:** Venice Bl

**Analyst:** <Fehr & Peers>

		MD		
No. of Phases				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB-- 0	0
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0	WB-- 0	0
Override Capacity				2
				0
MOVEMENT		Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	280	1	280
	Left-Through		0	
	Through	635	1	389
	Through-Right		1	
	Right	142	0	142
	Left-Through-Right		0	
	Left-Right		0	
SOUTHBOUND	Left	202	1	202
	Left-Through		0	
	Through	620	1	342
	Through-Right		1	
	Right	63	0	63
	Left-Through-Right		0	
	Left-Right		0	
EASTBOUND	Left	144	2	79
	Left-Through		0	
	Through	1523	3	508
	Through-Right		0	
	Right	341	1	201
	Left-Through-Right		0	
	Left-Right		0	
WESTBOUND	Left	152	1	152
	Left-Through		0	
	Through	1315	3	438
	Through-Right		0	
	Right	123	1	22
	Left-Through-Right		0	
	Left-Right		0	
CRITICAL VOLUMES		North-South:	622	
		East-West:	660	
		SUM:	1282	
VOLUME/CAPACITY (V/C) RATIO:				0.932
V/C LESS ATSAC/ATCS ADJUSTMENT:				<b>0.832</b>
LEVEL OF SERVICE (LOS):				<b>D</b>

## Level of Service Worksheet (Circular 212 Method)



**I/S #:**  
**3**

**PROJECT TITLE:** Park Century School

**North-South Street:** Robertson Bl

**East-West Street:** Venice Bl

**Scenario:** Future Base

**Count Date:** 1/0/1900

**Analyst:** <Fehr & Peers>

		MD		
No. of Phases				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				1
Right Turns: FREE-1, NRTOR-2 or OLA-3?		<b>NB--</b> 0	<b>SB--</b> 0	0
ATSAC-1 or ATSAC+ATCS-2?		<b>EB--</b> 0	<b>WB--</b> 0	0
Override Capacity				2
				0
MOVEMENT		Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	97	1	97
	Left-Through		0	
	Through	395	2	198
	Through-Right		0	
	Right	136	1	90
	Left-Through-Right		0	
	Left-Right		0	
SOUTHBOUND	Left	373	1	373
	Left-Through		0	
	Through	350	1	350
	Through-Right		0	
	Right	396	1	298
	Left-Through-Right		0	
	Left-Right		0	
EASTBOUND	Left	359	2	197
	Left-Through		0	
	Through	1520	3	507
	Through-Right		0	
	Right	92	1	0
	Left-Through-Right		0	
	Left-Right		0	
WESTBOUND	Left	93	1	93
	Left-Through		0	
	Through	1403	3	468
	Through-Right		0	
	Right	285	1	99
	Left-Through-Right		0	
	Left-Right		0	
CRITICAL VOLUMES		<b>North-South:</b>		571
		<b>East-West:</b>		665
		<b>SUM:</b>		1236
VOLUME/CAPACITY (V/C) RATIO:				0.899
V/C LESS ATSAC/ATCS ADJUSTMENT:				<b>0.799</b>
LEVEL OF SERVICE (LOS):				<b>C</b>

**Project Title:** Park Century School  
**Intersection:** 4 - National BI & Washington BI  
**Description:** Future Base

Thru Lane: 1600 vph  
 Left Lane: 1600 vph  
 Double Lt Penalty: 20 %  
 ITS: 7 %

OLA Movements :  
 FF Movements:

N-S Split Phase : N  
 E-W Split Phase : N  
 Lost Time (% of cycle) : 10  
 V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	61	0	0.000	N-S(1):	0.293
	TH	2.00	848	3,200	0.284 *	N-S(2):	0.359 *
	LT	2.00	195	2,560	0.076	E-W(1):	0.438 *
Westbound	RT	0.00	173	0	0.000	E-W(2):	0.264
	TH	3.00	632	4,800	0.168	V/C:	0.797
	LT	1.00	183	1,600	0.114 *	Lost Time:	0.100
Northbound	RT	1.00	112	1,600	0.013	ITS:	-0.070
	TH	2.00	693	3,200	0.217		
	LT	2.00	193	2,560	0.075 *		
Eastbound	RT	1.00	335	1,600	0.172	ICU:	0.827
	TH	2.00	1,037	3,200	0.324 *		
	LT	1.00	154	1,600	0.096	LOS:	D

**Project Title:** Park Century School  
**Intersection:** 5 - Landmark St & Washington Bl  
**Description:** Future Base

Thru Lane: 1600 vph  
 Left Lane: 1600 vph  
 Double Lt Penalty: 20 %  
 ITS: 7 %

OLA Movements :  
 FF Movements:

N-S Split Phase : N  
 E-W Split Phase : N  
 Lost Time (% of cycle) : 10  
 V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.035
	TH	0.00	0	0	0.000 *	N-S(2):	0.069 *
	LT	0.00	0	0	0.000	E-W(1):	0.496 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.253
	TH	2.00	809	3,200	0.253	V/C:	0.565
	LT	1.00	70	1,600	0.044 *	Lost Time:	0.100
Northbound	RT	1.00	91	1,600	0.035	ITS:	-0.070
	TH	0.00	0	0	0.000		
	LT	1.00	111	1,600	0.069 *		
Eastbound	RT	0.00	64	0	0.000	ICU:	0.595
	TH	2.00	1,383	3,200	0.452 *		
	LT	0.00	0	0	0.000	LOS:	A

**Project Title:** Park Century School  
**Intersection:** 6 - Robertson BI & Washington BI  
**Description:** Future Base

Thru Lane: 1600 vph  
 Left Lane: 1600 vph  
 Double Lt Penalty: 20 %  
 ITS: 7 %

OLA Movements :  
 FF Movements:

N-S Split Phase : N  
 E-W Split Phase : N  
 Lost Time (% of cycle) : 10  
 V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	123	1,600	0.000	N-S(1):	0.210 *
	TH	1.00	267	1,600	0.167	N-S(2):	0.185
	LT	1.00	172	1,600	0.108 *	E-W(1):	0.427 *
Westbound	RT	0.00	185	0	0.000	E-W(2):	0.422
	TH	2.00	677	3,200	0.269	V/C:	0.637
	LT	1.00	59	1,600	0.037 *	Lost Time:	0.100
Northbound	RT	1.00	76	1,600	0.029	ITS:	-0.070
	TH	1.00	163	1,600	0.102 *		
	LT	1.00	29	1,600	0.018		
Eastbound	RT	0.00	65	0	0.000	ICU:	0.667
	TH	2.00	1,182	3,200	0.390 *		
	LT	1.00	245	1,600	0.153	LOS:	B

**Project Title:** Park Century School  
**Intersection:** 7 - Washington Bl & Culver Bl  
**Description:** Future Base

Thru Lane: 1600 vph  
 Left Lane: 1600 vph  
 Double Lt Penalty: 20 %  
 ITS: 7 %

OLA Movements :  
 FF Movements:

N-S Split Phase : N  
 E-W Split Phase : N  
 Lost Time (% of cycle) : 10  
 V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	35	1,600	0.022 *	N-S(1):	0.233
	TH	0.00	0	0	0.000	N-S(2):	0.313 *
	LT	0.00	0	0	0.000	E-W(1):	0.252 *
Westbound	RT	0.00	7	0	0.000	E-W(2):	0.112
	TH	2.00	269	3,200	0.086	V/C:	0.565
	LT	1.00	54	1,600	0.034 *	Lost Time:	0.100
Northbound	RT	1.00	71	1,600	0.028	ITS:	-0.070
	TH	0.05	19	82	0.233		
	LT	1.95	727	2,495	0.291 *		
Eastbound	RT	2.00	1,165	3,200	0.218 *	ICU:	0.595
	TH	2.00	624	3,200	0.195		
	LT	1.00	41	1,600	0.026	LOS:	A

**Project Title:** Park Century School  
**Intersection:** 8 - Main St & Culver Bl  
**Description:** Future Base

Thru Lane: 1600 vph  
 Left Lane: 1600 vph  
 Double Lt Penalty: 20 %  
 ITS: 7 %

OLA Movements :  
 FF Movements:

N-S Split Phase : N  
 E-W Split Phase : N  
 Lost Time (% of cycle) : 10  
 V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	138	1,600	0.046	N-S(1):	0.133 *
	TH	0.02	4	32	0.127	N-S(2):	0.128
	LT	0.98	199	1,568	0.127 *	E-W(1):	0.510 *
Westbound	RT	0.00	46	0	0.000	E-W(2):	0.395
	TH	2.00	962	3,200	0.315	V/C:	0.643
	LT	1.00	10	1,600	0.006 *	Lost Time:	0.100
Northbound	RT	0.00	3	0	0.000	ITS:	-0.070
	TH	1.00	5	1,600	0.006 *	ICU:	0.673
	LT	0.00	1	1,600	0.001		
Eastbound	RT	0.00	0	0	0.000		
	TH	2.00	1,612	3,200	0.504 *	LOS:	B
	LT	1.00	128	1,600	0.080		

**FUTURE + PROJECT**



# Level of Service Worksheet (Circular 212 Method)



I/S #: **1**

PROJECT TITLE: <Project Name>

North-South Street: Robertson Bl

East-West Street: National Bl

Scenario: Future Plus Project

Count Date: 1/0/1900

Analyst: <Fehr & Peers>

Date: <date>

		AM			PM		
No. of Phases		4			4		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0			0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB-- 0		NB-- 0	SB-- 0	
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0	WB-- 3		EB-- 0	WB-- 3	
Override Capacity		2			2		
		0			0		
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	73	1	73	35	1	35
	Left-Through		0			0	
	Through	749	1	404	549	1	327
	Through-Right		1			1	
	Right	58	0	58	105	0	105
	Left-Through-Right		0			0	
SOUTHBOUND	Left-Right		0			0	
	Left	615	2	338	704	2	387
	Left-Through		0			0	
	Through	1029	1	582	1020	1	606
	Through-Right		1			1	
	Right	135	0	135	191	0	191
EASTBOUND	Left-Through-Right		0			0	
	Left-Right		0			0	
	Left	247	1	247	127	1	127
	Left-Through		0			0	
	Through	515	1	377	925	1	508
	Through-Right		1			1	
WESTBOUND	Right	239	0	239	91	0	91
	Left-Through-Right		0			0	
	Left-Right		0			0	
	Left	162	1	162	95	1	95
	Left-Through		0			0	
	Through	439	1	439	267	1	267
	Through-Right		0			0	
	Right	487	1	149	308	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES		North-South: 742			North-South: 714		
		East-West: 686			East-West: 603		
		SUM: 1428			SUM: 1317		
VOLUME/CAPACITY (V/C) RATIO:		1.039			0.958		
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.939			0.858		
LEVEL OF SERVICE (LOS):		E			D		

# Level of Service Worksheet (Circular 212 Method)



I/S #: **2**

PROJECT TITLE: <Project Name>

North-South Street: National BI

East-West Street: Venice BI

Scenario: Future Plus Project

Count Date: 1/0/1900

Analyst: <Fehr & Peers>

Date: <date>

		AM			PM		
No. of Phases		4			4		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0			0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB-- 0		NB-- 0	SB-- 0	
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0	WB-- 0		EB-- 0	WB-- 0	
Override Capacity		2			2		
		0			0		
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	311	1	311	281	1	281
	Left-Through		0			0	
	Through	742	1	431	650	1	421
	Through-Right		1			1	
	Right	120	0	120	191	0	191
	Left-Through-Right		0			0	
SOUTHBOUND	Left	131	1	131	172	1	172
	Left-Through		0			0	
	Through	467	1	286	663	1	368
	Through-Right		1			1	
	Right	105	0	105	73	0	73
	Left-Through-Right		0			0	
EASTBOUND	Left	192	2	106	251	2	138
	Left-Through		0			0	
	Through	1542	3	514	1684	3	561
	Through-Right		0			0	
	Right	356	1	201	268	1	128
	Left-Through-Right		0			0	
WESTBOUND	Left	105	1	105	150	1	150
	Left-Through		0			0	
	Through	1245	3	415	1551	3	517
	Through-Right		0			0	
	Right	108	1	43	116	1	30
	Left-Through-Right		0			0	
CRITICAL VOLUMES		North-South: 597			North-South: 649		
		East-West: 619			East-West: 711		
		SUM: 1216			SUM: 1360		
VOLUME/CAPACITY (V/C) RATIO:		0.884			0.989		
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.784			0.889		
LEVEL OF SERVICE (LOS):		C			D		



# Level of Service Worksheet (Circular 212 Method)



**I/S #:**  
**3**

**PROJECT TITLE:** <Project Name>

**North-South Street:** Robertson Bl

**East-West Street:** Venice Bl

**Scenario:** Future Plus Project

**Count Date:** 1/0/1900

**Analyst:** <Fehr & Peers>

**Date:** <date>

		AM			PM		
No. of Phases		4			4		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		1			1		
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB-- 0		NB-- 0	SB-- 0	
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0	WB-- 0		EB-- 0	WB-- 0	
Override Capacity		2			2		
		0			0		
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	150	1	150	98	1	98
	Left-Through		0			0	
	Through	539	2	270	514	2	257
	Through-Right		0			0	
	Right	84	1	44	222	1	177
	Left-Through-Right		0			0	
SOUTHBOUND	Left	347	1	347	276	1	276
	Left-Through		0			0	
	Through	478	1	478	264	1	264
	Through-Right		0			0	
	Right	422	1	312	431	1	343
	Left-Through-Right		0			0	
EASTBOUND	Left	400	2	220	320	2	176
	Left-Through		0			0	
	Through	1662	3	554	1728	3	576
	Through-Right		0			0	
	Right	101	1	26	101	1	52
	Left-Through-Right		0			0	
WESTBOUND	Left	80	1	80	90	1	90
	Left-Through		0			0	
	Through	1404	3	468	1689	3	563
	Through-Right		0			0	
	Right	250	1	77	277	1	139
	Left-Through-Right		0			0	
CRITICAL VOLUMES		North-South: 748			North-South: 600		
		East-West: 688			East-West: 739		
		SUM: 1436			SUM: 1339		
VOLUME/CAPACITY (V/C) RATIO:		1.044			0.974		
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.944			0.874		
LEVEL OF SERVICE (LOS):		E			D		

**Project Title:** Park Century School  
**Intersection:** 4 - National BI & Washington BI  
**Description:** Future plus Project

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 20 %  
ITS: 7 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	104	0	0.000	N-S(1): 0.275
	TH	2.00	707	3,200	0.253 *	N-S(2): 0.336 *
	LT	2.00	115	2,560	0.045	E-W(1): 0.377
Westbound	RT	0.00	312	0	0.000	E-W(2): 0.409 *
	TH	3.00	1,215	4,800	0.318 *	V/C: 0.745
	LT	1.00	252	1,600	0.158	Lost Time: 0.100
Northbound	RT	1.00	50	1,600	0.000	ITS: -0.070
	TH	2.00	736	3,200	0.230	
	LT	2.00	213	2,560	0.083 *	
Eastbound	RT	1.00	235	1,600	0.105	ICU: 0.775
	TH	2.00	701	3,200	0.219	
	LT	1.00	145	1,600	0.091 *	LOS: C

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	81	0	0.000	N-S(1): 0.318
	TH	2.00	848	3,200	0.290 *	N-S(2): 0.376 *
	LT	2.00	205	2,560	0.080	E-W(1): 0.456 *
Westbound	RT	0.00	167	0	0.000	E-W(2): 0.272
	TH	3.00	617	4,800	0.163	V/C: 0.832
	LT	1.00	172	1,600	0.108 *	Lost Time: 0.100
Northbound	RT	1.00	184	1,600	0.061	ITS: -0.070
	TH	2.00	760	3,200	0.238	
	LT	2.00	219	2,560	0.086 *	
Eastbound	RT	1.00	326	1,600	0.161	ICU: 0.862
	TH	2.00	1,115	3,200	0.348 *	
	LT	1.00	174	1,600	0.109	LOS: D

\* - Denotes critical movement

**Project Title:** Park Century School  
**Intersection:** 5 - Landmark St & Washington Bl  
**Description:** Future plus Project

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 20 %  
ITS: 7 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	0	0	0.000	N-S(1): 0.013
	TH	0.00	0	0	0.000 *	N-S(2): 0.058 *
	LT	0.00	0	0	0.000	E-W(1): 0.427
Westbound	RT	0.00	0	0	0.000	E-W(2): 0.452 *
	TH	2.00	1,446	3,200	0.452 *	V/C: 0.510
	LT	1.00	120	1,600	0.075	Lost Time: 0.100
Northbound	RT	1.00	81	1,600	0.013	ITS: -0.070
	TH	0.00	0	0	0.000	
	LT	1.00	93	1,600	0.058 *	
Eastbound	RT	0.00	148	0	0.000	ICU: 0.540
	TH	2.00	978	3,200	0.352	
	LT	0.00	0	0	0.000 *	LOS: A

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	0	0	0.000	N-S(1): 0.053 *
	TH	0.00	0	0	0.000 *	N-S(2): 0.053 *
	LT	0.00	0	0	0.000 *	E-W(1): 0.512 *
Westbound	RT	0.00	0	0	0.000	E-W(2): 0.256
	TH	2.00	815	3,200	0.255	V/C: 0.565
	LT	1.00	71	1,600	0.044 *	Lost Time: 0.100
Northbound	RT	1.00	121	1,600	0.053 *	ITS: -0.070
	TH	0.00	0	0	0.000	
	LT	1.00	84	1,600	0.053 *	
Eastbound	RT	0.00	57	0	0.000	ICU: 0.595
	TH	2.00	1,441	1,600	0.468 *	
	LT	0.00	1	1,600	0.001	LOS: A

\* - Denotes critical movement

**Project Title:** Park Century School  
**Intersection:** 6 - Robertson BI & Washington BI  
**Description:** Future plus Project

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 20 %  
ITS: 7 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	191	1,600	0.067	N-S(1): 0.330 *
	TH	1.00	273	1,600	0.171	N-S(2): 0.192
	LT	1.00	166	1,600	0.104 *	E-W(1): 0.354
Westbound	RT	0.00	264	0	0.000	E-W(2): 0.563 *
	TH	2.00	1,205	3,200	0.459 *	V/C: 0.893
	LT	1.00	78	1,600	0.049	Lost Time: 0.100
Northbound	RT	1.00	85	1,600	0.029	ITS: -0.070
	TH	1.00	362	1,600	0.226 *	
	LT	1.00	34	1,600	0.021	
Eastbound	RT	0.00	86	0	0.000	ICU: 0.923
	TH	2.00	890	3,200	0.305	
	LT	1.00	167	1,600	0.104 *	LOS: E

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	100	1,600	0.000	N-S(1): 0.256 *
	TH	1.00	247	1,600	0.154	N-S(2): 0.177
	LT	1.00	119	1,600	0.074 *	E-W(1): 0.441
Westbound	RT	0.00	183	0	0.000	E-W(2): 0.493 *
	TH	2.00	760	3,200	0.295 *	V/C: 0.749
	LT	1.00	75	1,600	0.047	Lost Time: 0.100
Northbound	RT	1.00	81	1,600	0.027	ITS: -0.070
	TH	1.00	291	1,600	0.182 *	
	LT	1.00	37	1,600	0.023	
Eastbound	RT	0.00	93	0	0.000	ICU: 0.779
	TH	2.00	1,169	3,200	0.394	
	LT	1.00	317	1,600	0.198 *	LOS: C

\* - Denotes critical movement

**Project Title:** Park Century School  
**Intersection:** 7 - Washington Bl & Culver Bl  
**Description:** Future plus Project

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 20 %  
ITS: 7 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	5	1,600	0.003 *	N-S(1): 0.431
	TH	0.00	0	0	0.000	N-S(2): 0.542 *
	LT	0.00	0	0	0.000	E-W(1): 0.252 *
Westbound	RT	0.00	3	0	0.000	E-W(2): 0.104
	TH	2.00	243	3,200	0.077	V/C: 0.794
	LT	1.00	31	1,600	0.019 *	Lost Time: 0.100
Northbound	RT	1.00	73	1,600	0.036	ITS: -0.070
	TH	0.16	108	250	0.431	
	LT	1.84	1,272	2,360	0.539 *	
Eastbound	RT	2.00	867	3,200	0.001	ICU: 0.824
	TH	2.00	744	3,200	0.233 *	
	LT	1.00	43	1,600	0.027	LOS: D

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	35	1,600	0.022 *	N-S(1): 0.277
	TH	0.00	0	0	0.000	N-S(2): 0.368 *
	LT	0.00	0	0	0.000	E-W(1): 0.296 *
Westbound	RT	0.00	24	0	0.000	E-W(2): 0.138
	TH	2.00	342	3,200	0.114	V/C: 0.664
	LT	1.00	31	1,600	0.019 *	Lost Time: 0.100
Northbound	RT	1.00	93	1,600	0.048	ITS: -0.070
	TH	0.07	29	105	0.277	
	LT	1.93	857	2,476	0.346 *	
Eastbound	RT	2.00	1,202	3,200	0.203	ICU: 0.694
	TH	2.00	885	3,200	0.277 *	
	LT	1.00	38	1,600	0.024	LOS: B

\* - Denotes critical movement

**Project Title:** Park Century School  
**Intersection:** 8 - Main St & Culver Bl  
**Description:** Future plus Project

Thru Lane: 1600 vph  
Left Lane: 1600 vph  
Double Lt Penalty: 20 %  
ITS: 7 %

OLA Movements :  
FF Movements:

N-S Split Phase : N  
E-W Split Phase : N  
Lost Time (% of cycle) : 10  
V/C Round Off (decs.) : 3

**Date/Time:** AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	154	1,600	0.030	N-S(1): 0.062 *
	TH	0.00	0	0	0.000	N-S(2): 0.030
	LT	1.00	97	1,600	0.061 *	E-W(1): 0.491
Westbound	RT	0.00	103	0	0.000	E-W(2): 0.606 *
	TH	2.00	1,412	3,200	0.473 *	V/C: 0.668
	LT	1.00	1	1,600	0.001	Lost Time: 0.100
Northbound	RT	0.00	1	0	0.000	ITS: -0.070
	TH	1.00	0	1,600	0.001 *	
	LT	0.00	0	0	0.000	
Eastbound	RT	0.00	1	0	0.000	ICU: 0.698
	TH	2.00	1,568	3,200	0.490	
	LT	1.00	212	1,600	0.133 *	LOS: B

**Date/Time:** PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	201	1,600	0.091	N-S(1): 0.140 *
	TH	0.00	0	0	0.000	N-S(2): 0.091
	LT	1.00	223	1,600	0.139 *	E-W(1): 0.590 *
Westbound	RT	0.00	73	0	0.000	E-W(2): 0.448
	TH	2.00	1,137	3,200	0.378	V/C: 0.730
	LT	1.00	5	1,600	0.003 *	Lost Time: 0.100
Northbound	RT	0.00	0	0	0.000	ITS: -0.070
	TH	1.00	2	1,600	0.001 *	
	LT	0.00	0	0	0.000	
Eastbound	RT	0.00	0	0	0.000	ICU: 0.760
	TH	2.00	1,878	3,200	0.587 *	
	LT	1.00	112	1,600	0.070	LOS: C

\* - Denotes critical movement

## Level of Service Worksheet (Circular 212 Method)



**I/S #:**  
**1**

**PROJECT TITLE:** Park Century School  
**North-South Street:** Robertson Bl  
**Scenario:** Future plus Project  
**Count Date:** 1/0/1900

**East-West Street:** National Bl

**Analyst:** <Fehr & Peers>

		MD		
No. of Phases				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		<b>NB--</b> 0	<b>SB--</b>	0
ATSAC-1 or ATSAC+ATCS-2?		<b>EB--</b> 0	<b>WB--</b>	3
Override Capacity				2
				0
MOVEMENT		Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	42	1	42
	Left-Through		0	
	Through	543	1	296
	Through-Right		1	
	Right	48	0	48
	Left-Through-Right		0	
	Left-Right		0	
SOUTHBOUND	Left	684	2	376
	Left-Through		0	
	Through	878	1	530
	Through-Right		1	
	Right	182	0	182
	Left-Through-Right		0	
	Left-Right		0	
EASTBOUND	Left	163	1	163
	Left-Through		0	
	Through	817	1	468
	Through-Right		1	
	Right	118	0	118
	Left-Through-Right		0	
	Left-Right		0	
WESTBOUND	Left	100	1	100
	Left-Through		0	
	Through	293	1	293
	Through-Right		0	
	Right	297	1	0
	Left-Through-Right		0	
	Left-Right		0	
CRITICAL VOLUMES		<b>North-South:</b>		672
		<b>East-West:</b>		568
		<b>SUM:</b>		1240
VOLUME/CAPACITY (V/C) RATIO:				0.902
V/C LESS ATSAC/ATCS ADJUSTMENT:				<b>0.802</b>
LEVEL OF SERVICE (LOS):				<b>D</b>

## Level of Service Worksheet (Circular 212 Method)



**I/S #:**  
**2**

**PROJECT TITLE:** Park Century School  
**North-South Street:** National Bl  
**Scenario:** Future plus Project  
**Count Date:** 1/0/1900

**East-West Street:** Venice Bl

**Analyst:** <Fehr & Peers>

		MD		
No. of Phases				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		<b>NB--</b> 0	<b>SB--</b>	0
ATSAC-1 or ATSAC+ATCS-2?		<b>EB--</b> 0	<b>WB--</b>	0
Override Capacity				2
				0
MOVEMENT		Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	280	1	280
	Left-Through		0	
	Through	637	1	390
	Through-Right		1	
	Right	143	0	143
	Left-Through-Right		0	
	Left-Right		0	
SOUTHBOUND	Left	202	1	202
	Left-Through		0	
	Through	624	1	344
	Through-Right		1	
	Right	63	0	63
	Left-Through-Right		0	
	Left-Right		0	
EASTBOUND	Left	144	2	79
	Left-Through		0	
	Through	1523	3	508
	Through-Right		0	
	Right	341	1	201
	Left-Through-Right		0	
	Left-Right		0	
WESTBOUND	Left	154	1	154
	Left-Through		0	
	Through	1315	3	438
	Through-Right		0	
	Right	123	1	22
	Left-Through-Right		0	
	Left-Right		0	
CRITICAL VOLUMES		<b>North-South:</b>		624
		<b>East-West:</b>		662
		<b>SUM:</b>		1286
VOLUME/CAPACITY (V/C) RATIO:				0.935
V/C LESS ATSAC/ATCS ADJUSTMENT:				<b>0.835</b>
LEVEL OF SERVICE (LOS):				<b>D</b>

## Level of Service Worksheet (Circular 212 Method)



**I/S #:**  
**3**

**PROJECT TITLE:** Park Century School  
**North-South Street:** Robertson Bl  
**Scenario:** Future plus Project  
**Count Date:** 1/0/1900

**East-West Street:** Venice Bl

**Analyst:** <Fehr & Peers>

		MD		
No. of Phases				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				1
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB-- 0	0
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0	WB-- 0	0
Override Capacity				2
				0
MOVEMENT		Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	98	1	98
	Left-Through		0	
	Through	399	2	200
	Through-Right		0	
	Right	136	1	90
	Left-Through-Right		0	
	Left-Right		0	
SOUTHBOUND	Left	373	1	373
	Left-Through		0	
	Through	357	1	357
	Through-Right		0	
	Right	396	1	298
	Left-Through-Right		0	
	Left-Right		0	
EASTBOUND	Left	359	2	197
	Left-Through		0	
	Through	1520	3	507
	Through-Right		0	
	Right	93	1	44
	Left-Through-Right		0	
	Left-Right		0	
WESTBOUND	Left	93	1	93
	Left-Through		0	
	Through	1403	3	468
	Through-Right		0	
	Right	285	1	99
	Left-Through-Right		0	
	Left-Right		0	
CRITICAL VOLUMES		North-South:		573
		East-West:		665
		SUM:		1238
VOLUME/CAPACITY (V/C) RATIO:				0.900
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.800
LEVEL OF SERVICE (LOS):				D

**Project Title:** The Boulevards  
**Intersection:** 4 - National BI & Washington BI  
**Description:** Future plus Project

Thru Lane: 1600 vph  
 Left Lane: 1600 vph  
 Double Lt Penalty: 20 %  
 ITS: 7 %  
 OLA Movements :  
 FF Movements:

N-S Split Phase : N  
 E-W Split Phase : N  
 Lost Time (% of cycle) : 10  
 V/C Round Off (decs.) : 3

**Date/Time:** MD PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	67	0	0.000	N-S(1):	0.293
	TH	2.00	848	3,200	0.286 *	N-S(2):	0.362 *
	LT	2.00	195	2,560	0.076	E-W(1):	0.439 *
Westbound	RT	0.00	173	0	0.000	E-W(2):	0.266
	TH	3.00	634	4,800	0.168	V/C:	0.801
	LT	1.00	183	1,600	0.114 *	Lost Time:	0.100
Northbound	RT	1.00	112	1,600	0.013	ITS:	-0.070
	TH	2.00	693	3,200	0.217		
	LT	2.00	194	2,560	0.076 *		
Eastbound	RT	1.00	337	1,600	0.173	ICU:	0.831
	TH	2.00	1,040	3,200	0.325 *		
	LT	1.00	157	1,600	0.098	LOS:	D

**Project Title:** The Boulevards  
**Intersection:** 5 - Landmark St & Washington Bl  
**Description:** Future plus Project

Thru Lane: 1600 vph  
 Left Lane: 1600 vph  
 Double Lt Penalty: 20 %  
 ITS: 7 %  
 OLA Movements :  
 FF Movements:

N-S Split Phase : N  
 E-W Split Phase : N  
 Lost Time (% of cycle) : 10  
 V/C Round Off (decs.) : 3

**Date/Time:** MD PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	0	0	0.000	N-S(1): 0.037
	TH	0.00	0	0	0.000 *	N-S(2): 0.074 *
	LT	0.00	0	0	0.000	E-W(1): 0.505 *
Westbound	RT	0.00	0	0	0.000	E-W(2): 0.253
	TH	2.00	809	3,200	0.253	V/C: 0.579
	LT	1.00	79	1,600	0.049 *	Lost Time: 0.100
Northbound	RT	1.00	99	1,600	0.037	ITS: -0.070
	TH	0.00	0	0	0.000	
	LT	1.00	119	1,600	0.074 *	
Eastbound	RT	0.00	77	0	0.000	ICU: 0.609
	TH	2.00	1,383	3,200	0.456 *	
	LT	0.00	0	0	0.000	LOS: B

**Project Title:** The Boulevards  
**Intersection:** 6 - Robertson Bl & Washington Bl  
**Description:** Future plus Project

Thru Lane: 1600 vph  
 Left Lane: 1600 vph  
 Double Lt Penalty: 20 %  
 ITS: 7 %  
 OLA Movements :  
 FF Movements:

N-S Split Phase : N  
 E-W Split Phase : N  
 Lost Time (% of cycle) : 10  
 V/C Round Off (decs.) : 3

**Date/Time:** MD PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	123	1,600	0.000	N-S(1):	0.215 *
	TH	1.00	267	1,600	0.167	N-S(2):	0.185
	LT	1.00	180	1,600	0.113 *	E-W(1):	0.429 *
Westbound	RT	0.00	190	0	0.000	E-W(2):	0.425
	TH	2.00	680	3,200	0.272	V/C:	0.644
	LT	1.00	59	1,600	0.037 *	Lost Time:	0.100
Northbound	RT	1.00	76	1,600	0.029	ITS:	-0.070
	TH	1.00	163	1,600	0.102 *		
	LT	1.00	29	1,600	0.018		
Eastbound	RT	0.00	65	0	0.000	ICU:	0.674
	TH	2.00	1,188	3,200	0.392 *		
	LT	1.00	245	1,600	0.153	LOS:	B

**Project Title:** The Boulevards  
**Intersection:** 7 - Washington Bl & Culver Bl  
**Description:** Future plus Project

Thru Lane: 1600 vph  
 Left Lane: 1600 vph  
 Double Lt Penalty: 20 %  
 ITS: 7 %  
 OLA Movements :  
 FF Movements:

N-S Split Phase : N  
 E-W Split Phase : N  
 Lost Time (% of cycle) : 10  
 V/C Round Off (decs.) : 3

**Date/Time:** MD PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	35	1,600	0.022 *	N-S(1):	0.234
	TH	0.00	0	0	0.000	N-S(2):	0.315 *
	LT	0.00	0	0	0.000	E-W(1):	0.254 *
Westbound	RT	0.00	7	0	0.000	E-W(2):	0.112
	TH	2.00	269	3,200	0.086	V/C:	0.569
	LT	1.00	54	1,600	0.034 *	Lost Time:	0.100
Northbound	RT	1.00	71	1,600	0.028	ITS:	-0.070
	TH	0.05	19	81	0.234		
	LT	1.95	730	2,495	0.293 *		
Eastbound	RT	2.00	1,171	3,200	0.220 *	ICU:	0.599
	TH	2.00	624	3,200	0.195		
	LT	1.00	41	1,600	0.026	LOS:	A

**Project Title:** The Boulevards  
**Intersection:** 8 - Main St & Culver Bl  
**Description:** Future plus Project

Thru Lane: 1600 vph  
 Left Lane: 1600 vph  
 Double Lt Penalty: 20 %  
 ITS: 7 %  
 OLA Movements :  
 FF Movements:

N-S Split Phase : N  
 E-W Split Phase : N  
 Lost Time (% of cycle) : 10  
 V/C Round Off (decs.) : 3

**Date/Time:** MD PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	138	1,600	0.046	N-S(1):	0.134 *
	TH	0.02	4	31	0.128	N-S(2):	0.129
	LT	0.98	201	1,569	0.128 *	E-W(1):	0.511 *
Westbound	RT	0.00	47	0	0.000	E-W(2):	0.396
	TH	2.00	964	3,200	0.316	V/C:	0.645
	LT	1.00	10	1,600	0.006 *	Lost Time:	0.100
Northbound	RT	0.00	3	0	0.000	ITS:	-0.070
	TH	1.00	5	1,600	0.006 *		
	LT	0.00	1	1,600	0.001		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.675
	TH	2.00	1,615	3,200	0.505 *		
	LT	1.00	128	1,600	0.080	LOS:	B

**APPENDIX C:**  
**MEMORANDUM OF UNDERSTANDING**



**REVISED MOU (OCTOBER 2018)**

## **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:

Project Name: **Park Century School**  
Project Address: **3939 Landmark St, Culver City, CA 90232**  
Project Description:

50 Students / 8 Staff

**See Attachment A-1 and Figure 1.**

Project Horizon Year: **2019** Ambient Growth Rate: **One (1.0) % Per Year**  
Directional Distribution: N: **25** % S: **20** % E: **25** % W: **30** %  
[Attach map(s) illustrating directional distribution percentages at all intersections and driveways.]

**Distribution is identical to the 2005 Park Century School study, shown in Figure 2.**

Trip Generation Rates: ITE Latest Edition / Other: **Driveway counts from school**  
[Show AM, PM and daily trip generation rates for each land use]

Land Use: **Private School**  
**Total In / Total Out**  
AM Trips: **30 / 32**  
MD Trips: **22 / 16**  
PM Trips: **8 / 11**

Attach Total Daily Trips Generation Calculations.  
**See Attachment A-2, Table 1 for AM, MD, and PM Trip Generation Calculations.**

Prior to the start of any proposed project analysis, the Traffic Consultant shall:

1. Obtain a list of related projects from the Planning Division of Culver City and other affected jurisdictions;
2. Prepare a draft list of "related projects specific to the proposed project"; and
3. Obtain written approval from the City of the "related projects specific to the proposed project" list.

**See Table 2 and Figure 4.**

Study Intersection:

No. Intersection: **See Attachment A-3 and Figure 3** / Jurisdiction:

Residential Streets to be Studied:

No. Street Name: **See Figure 3** / Limits: / Jurisdiction:

- \* Gross Floor Area (GFA) shall be as defined in the most recent ITE publication.
- \*\* Indicate intersections subject to capacity analysis credit for advanced traffic signal control synchronization.
- \*\*\* Indicate non-signalized intersections to be studied.
- \*\*\*\* Use the same numbering system for all lists of intersections and figures in the traffic study.

Indicate Trip Credits to Be Requested (Amount Subject To City Approval):		Yes	No
1.	Existing Uses:	<input type="checkbox"/>	X
2.	Pass-By Trips:	<input type="checkbox"/>	X
3.	Internal Trip Capture:	<input type="checkbox"/>	X
4.	Transit Oriented Development (TOD)	<input type="checkbox"/>	X
5.	Transportation Demand Management (TDM)	<input type="checkbox"/>	X

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 I Developer I 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.

Signatures:

	<u>Property Owner / Applicant:</u>	<u>Developer / Applicant:</u>
Name [Signed]:	_____	_____
Name [Printed]:	<u>Jennifer Palmer</u>	_____
Title:	<u>Director of Development and</u> <u>Community Affairs</u>	_____
Company:	<u>Park Century School</u>	_____
Address:	<u>3939 Landmark Street</u>	_____
City / State / Zip:	<u>Culver City, CA 90232</u>	_____
Office:	<u>310-840-0500 ext. 235</u>	( ) _____
Fax:	( ) _____	( ) _____
Cell:	( ) _____	( ) _____
E-Mail:	<u>jpalmers@parkcenturyschool.org</u>	_____

Traffic Consultant:

Name:	<u>John Muggridge</u>	<u>Mike Samuelson</u>
Title:	<u>Principal</u>	<u>Transportation Planner</u>
Company:	<u>Fehr &amp; Peers</u>	<u>Fehr &amp; Peers</u>
Address:	<u>600 Wilshire Blvd, Suite 1050</u>	<u>600 Wilshire Blvd, Suite 1050</u>
City / State / Zip:	<u>Los Angeles, CA 90017</u>	<u>Los Angeles, CA 90017</u>
Office:	( 213 ) <u>261-3050</u>	( 213 ) <u>261-3050</u>
Fax:	( ) _____	( ) _____
Cell:	( ) _____	( ) _____
E-Mail:	<u>j.muggridge@fehrandpeers.com</u>	<u>m.samuelson@fehrandpeers.com</u>

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:

	<u>City of Los Angeles:</u>	<u>County of Los Angeles:</u>
Name [Signed]:	_____	_____
Name [Printed]:	_____	_____
Title:	_____	_____
Department:	_____	_____
	<u>City of Los Angeles:</u>	<u>County of Los Angeles:</u>
Address:	_____	_____
City / State / Zip:	_____	_____
Office:	( ) _____	( ) _____
Fax:	( ) _____	( ) _____
Cell:	( ) _____	( ) _____
E-Mail:	_____	_____

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

Approved By:

_____ / _____	
Property Owner - Applicant	Date
_____ / _____	
Develop - Applicant	Date
_____ / _____	
Traffic Consultant	Date
_____ / _____	
City of Culver City	Date

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

## ATTACHMENT A-1

### **Project Description:**

The Project will expand the Park Century School by 50 students and eight staff. As part of the project, the school will provide staff with subsidized transit passes to encourage transit use. The site plan is illustrated in Figure 1. The project traffic will enter the site from the existing driveway on Landmark Street.

### **Project Analysis:**

#### *Intersection Level of Service*

The project will conduct a Level of Service analysis for eight total intersections in the study area, presented in Attachment A-2. All intersections will be analyzed during the morning, midday, and evening peak hour.

The project will conduct a Level of Service analysis for five signalized intersections that lie completely within the City of Culver City using the Intersection Capacity Utilization (ICU) method per the *City of Culver City Traffic Study Criteria, July 2012*. The project will conduct a Level of Service analysis for three signalized intersections that lie completely within the City of Los Angeles using the Circular 212 Critical Movement Analysis (CMA) per the *City of Los Angeles Transportation Impact Study Guidelines, December 2016*.

#### *Queuing Analysis, Traffic Management Program and Review*

The study will conduct a queuing analysis using the Sim Traffic software to analyze the potential for queuing beyond the school's parking lot, both during the construction period and with the completed project.

Following the queuing analysis, the study will include a Traffic Management Program (TMP), including a discussion of staggered pick-up and drop-off times and pick-up/drop-off procedures. The TMP will address the potential for queuing from early arrivals before the gates are open, and will show the path of travel on the site.

The project team will provide a follow up memorandum on the performance of the TMP, six months after Project occupancy.

#### *Left-Turn Storage Capacity for westbound left at Washington Boulevard & Landmark Street*

Using the synchro traffic software, the study will analyze if the length of the westbound left-turn pockets on Washington Boulevard is sufficient at Landmark Street. If it is determined that the length is not sufficient for the demand, the analysis will determine the appropriate length for the left-turn pockets.

#### *Bicycle and Pedestrian Connections and TDM Options*

The project team will coordinate with the City to include a discussion of bicycle and pedestrian travel options, including information on the proposed Exposition Boulevard to Downtown Bicycle Connection cycle track. The report will note potential TDM options, including programs to encourage biking, walking, and shuttles to that can reduce the number of trips to the project site.

### *ITS Measures for Washington Boulevard*

The project will include as assessment of ITS measures that could potentially improve traffic congestion on Washington Boulevard.

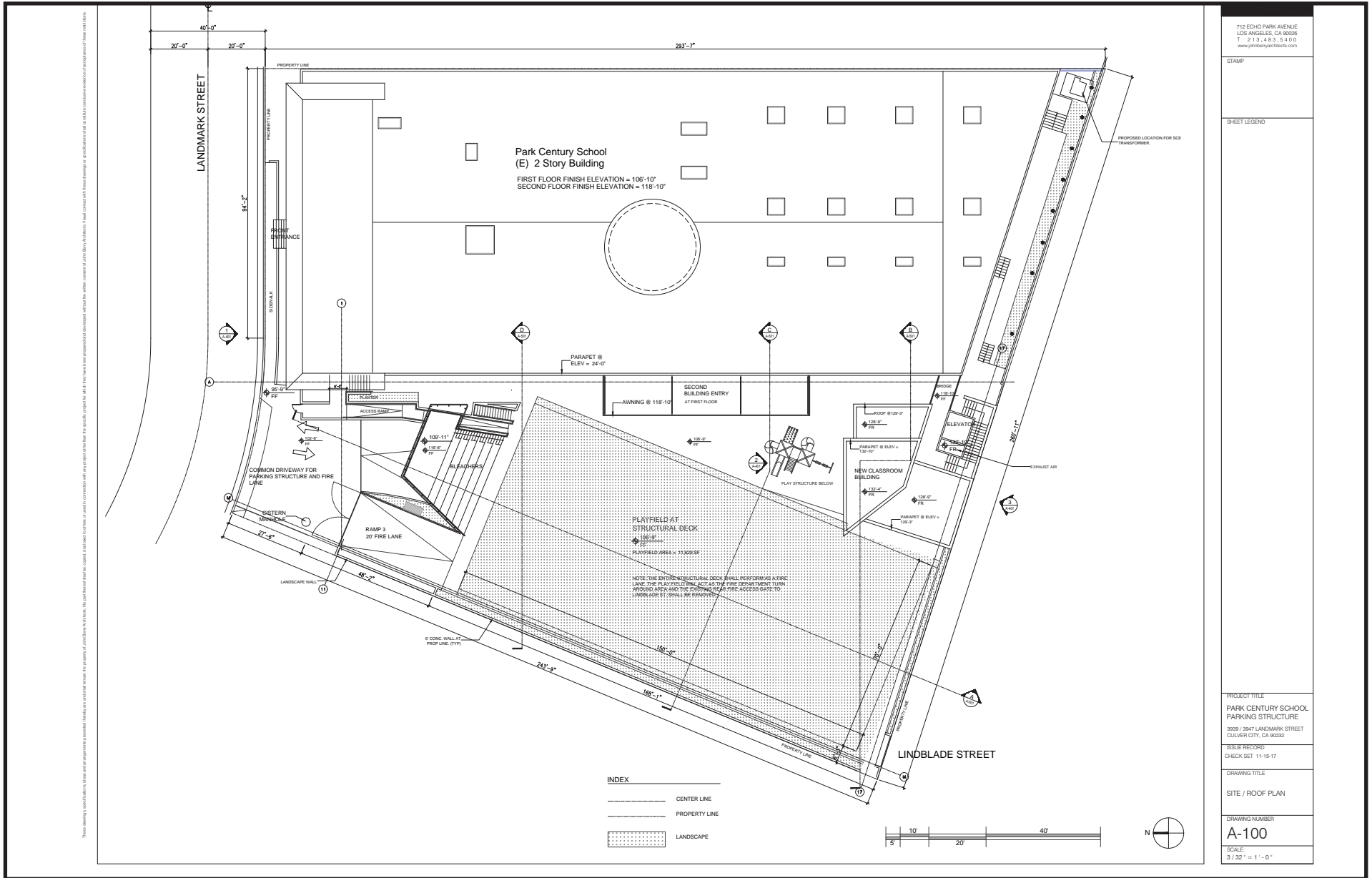


Figure 1

Park Century Site Plan





TABLE 1																
PARK CENTURY SCHOOL TRIP GENERATION																
		AM Total [a]			AM Rate per person		MD Total [b]			MD Rate per person		PM Total [b]			PM Rate per person	
Existing On-site Population	Size	Inbound	Outbound	Total	Inbound	Outbound	Inbound	Outbound	Total	Inbound	Outbound	Inbound	Outbound	Total	Inbound	Outbound
Students [a]	120	71	75	146	0.59	0.63	51	40	91	0.43	0.33	18	26	44	0.15	0.22
Staff [b]	60	49	0	49	0.82	0.00	0	17	17	0.00	0.28	0	16	16	0.00	0.27
Total Existing Trips		120	75	195			51	57	108			18	42	60		
Proposed Project	Size	Inbound	Outbound	Total	Inbound	Outbound	Inbound	Outbound	Total	Inbound	Outbound	Inbound	Outbound	Total	Inbound	Outbound
Students	170	100	107	207	0.59	0.63	73	56	129	0.43	0.33	26	37	63	0.15	0.22
Staff	68	56	0	56	0.82	0.00	0	19	19	0.00	0.28	0	18	18	0.00	0.27
Staff Transit/bike/walk Credit [c]	10%	-6	0	-6			0	-2	-2			0	-2	-2		
Total Proposed Trips		150	107	257			73	73	146			26	53	79		
Net New Trips		30	32	62			22	16	38			8	11	19		

[a] Inbound trips without students are considered staff generated. All other trips are considered student generated. Staff trips also includes 10 parking spaces at adjacent off-site garage.

[b] Outbound trips without students are considered staff generated. All other trips are considered student generated. Staff trips also includes 10 inbound trips from parking spaces at an adjacent off-site garage. Based on based on the driveway counts of outbound trips without students in the MD (12) and PM (11), these 10 trips were split evenly

[c] A 10% reduction in staff trips is expected to occur with the initiation of a subsidized transit pass program for staff, and encouraging staff to walk or bike to school.

## ATTACHMENT A-2

### Trip Generation Rates

Table 1 presents the trip rates used to estimate trip generation for the Park Century School Project. Trip generation rates were calculated based on driveway counts at the school in fall 2017. Driveway counts were taken between 7-9 AM and 2-6 PM. Vehicles were classified as either staff trips or students trips based on if the a student was present in the car when either entering or exiting the school. In addition, staff trip generation rates incorporated 10 parking spaces that the school currently rent at the adjacent parking structure on Landmark Street. Trip rates were developed for staff and students for the morning (7-9 AM), midday (2-4 PM), and evening periods (4-6 PM).

The trip rates developed using existing conditions were used to estimate new trips for the school expansion.

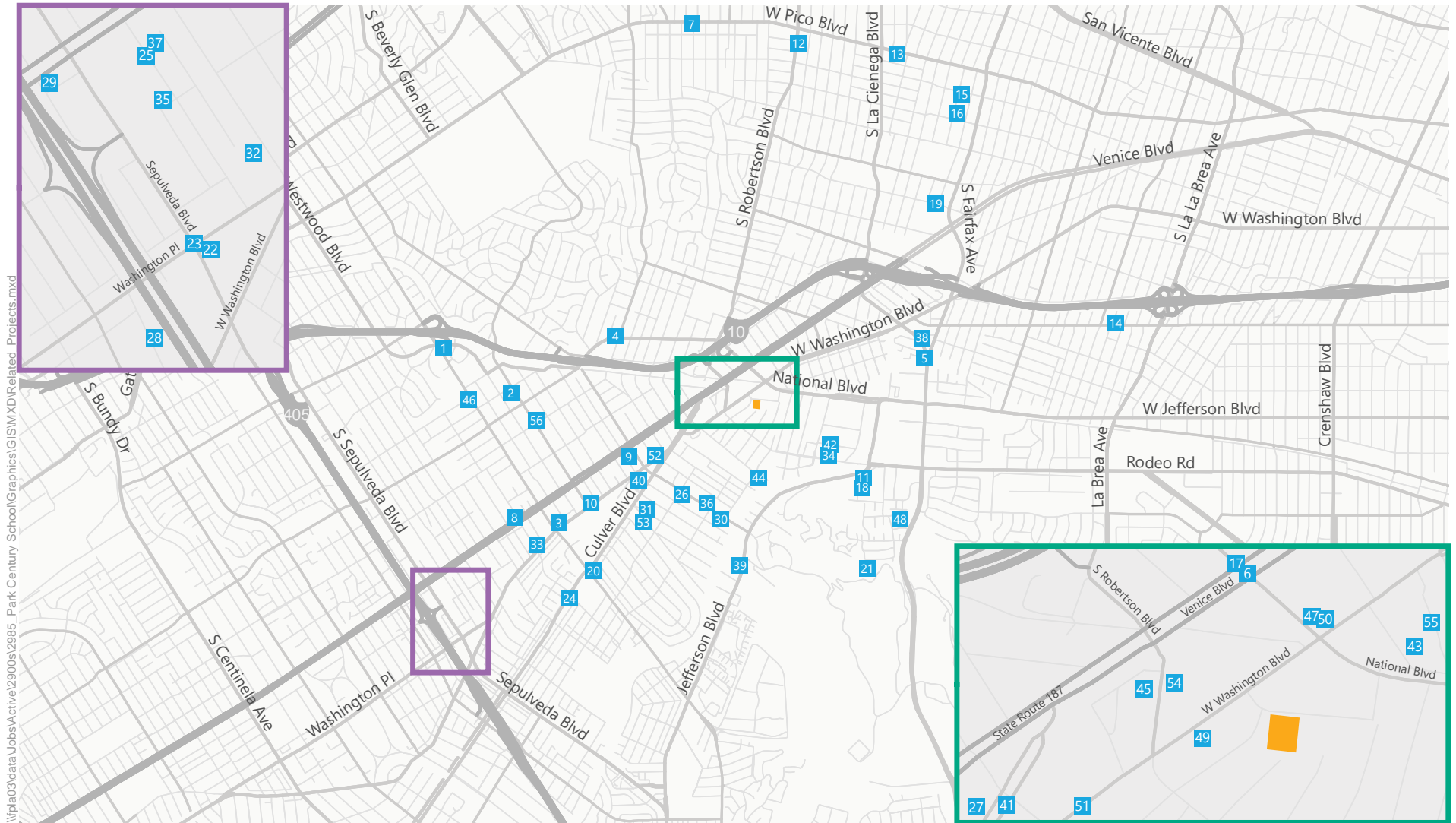
## **ATTACHMENT A-3**

### **Study Intersections**

A total of eight study intersections are proposed for the study (Illustrated in Figure 3). All intersections will be studied during the morning, mid-day, and evening peak hour. The jurisdiction for each intersection is shown in parenthesis:

1. Robertson Boulevard/National Boulevard (City of Los Angeles)
2. Venice Boulevard/ National Boulevard (City of Los Angeles)
3. Venice Boulevard/ Robertson Boulevard (City of Los Angeles)
4. Washington Boulevard/National Boulevard (City of Culver City)
5. Washington Boulevard/Landmark Street (City of Culver City)
6. Washington Boulevard/Robertson Boulevard (City of Culver City)
7. Washington Boulevard/Culver Boulevard (City of Culver City)
8. Culver Boulevard/Main Street (City of Culver City)





- Project Site
- Related Projects



Figure 4

## Park Century School Related Projects

**TABLE 2  
PARK CENTURY SCHOOL PROJECT  
RELATED PROJECTS**

No.	Project Location	City	Land Use	ITE Land Use Code	Size	Estimated Trip Generation												
						Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips								
						In	Out	Total	In	Out	Total							
1	10612 W National Blvd	City of Los Angeles [a]	Coffeeshop		1.726 ksf	636	42	42	84	15	16	31						
2	3417 S Motor Ave	City of Los Angeles [a]	Retail Apartments		2 ksf 85 Units	0	8	34	42	30	20	50						
3	10601 Washington Blvd	City of Los Angeles [a]	Apartments		126 Units	2,343	64	84	148	123	91	214						
			Office		23 ksf													
			Retail		9 ksf													
			Other		4.5 ksf													
			Other		4.5 ksf													
4	9815 W National Blvd	City of Los Angeles [a]	Office		10.1 ksf	977	30	31	61	52	53	105						
5	3221 S La Cienega Blvd	City of Los Angeles [a]	Gas Station		12 fueling positions													
6	8900 W Venice Blvd	City of Los Angeles [a]	Mixed-Use		10,136								319	418	737	467	382	849
7	9300 W Pico Blvd	City of Los Angeles [a]	Mixed-Use		4,124								173	83	256	127	174	301
			Apartments		64 Units													
			Other		99.680 ksf													
			Other		8.269 ksf													
			Retail		1.637 ksf													
8	10801 W Venice Blvd	City of Los Angeles [a]	Mixed-Use		Other	430	-5	25	20	41	18	59						
9	3822 S Dunn Dr	City of Los Angeles [a]	Apartments		86 Units	543	9	33	42	32	18	50						
10	10375 W Washington Blvd	City of Los Angeles [a]	Mixed-Use			579	-3	35	32	31	11	42						
11	5950 W Jefferson Blvd	City of Los Angeles [a]	Office		70 ksf	716	65	13	78	23	58	81						
12	1434 W Robertson Blvd	City of Los Angeles [a]	Hotel		112 Rooms	530	30	17	47	17	16	33						
13	6132 W Pico Blvd	City of Los Angeles [a]	Retail		1.4 ksf	807	5	34	39	47	30	77						
			Apartments		100 Units													
14	5181 W Adams Blvd	City of Los Angeles [a]	Apartments		72 Units	3,951	59	62	121	173	172	345						
15	1500 S Hi Point St	City of Los Angeles [a]	Retail		33,860 ksf	300	5	18	23	18	10	28						
16	1556 S Hi Point St	City of Los Angeles [a]	Apartments		45 Units	300	5	18	23	18	10	28						
17	8900 W National Blvd	City of Los Angeles [a]	Apartments		45 Units	300	5	18	23	18	10	28						
18	3640 S Holdrege Avenue	City of Los Angeles [a]	Retail		23,795 ksf	1,589	67	47	114	57	60	117						
19	5930 W Sawyer St	City of Los Angeles [a]	Office		25,032 ksf	187	0	0	31	0	0	29						
20	10638 Culver Blvd	City of Culver City [b]	Apartments		60 Units	584	10	35	45	39	23	62						
21	5950 Stoneview Dr	City of Culver City [b]	Convenience Store	945	2,676 ksf	83	45	48	93	44	43	87						
			Park		4 acres	22	2	3	5	1	1	2						
22	11198 Washington Place	City of Culver City [b]	Office	710	4,000 ksf	553	26	27	53	26	17	43						
			Restaurant	820	3,850 ksf													
23	11197 Washington Place	City of Culver City [b]	Restaurant	932	0,500 ksf	78	42	44	86	42	40	82						
24	10808 Culver Blvd	City of Culver City [b]	Convenience Store	852	2,500 ksf	-31	2	-11	-9	-1	0	-1						
25	3837 Bentley Ave	City of Culver City [b]	Museum	580	12,596 ksf	12	0	1	1	1	0	1						
			Armory/mini-warehouse	151	-12,596 ksf													
26	4109-41111 Duquesne Ave	City of Culver City [b]	Condominium	231	2 Units	13	0	1	1	1	0	1						
27	9355 Culver Blvd	City of Culver City [b]	Apartments	220	2 Units	152	2	5	7	7	6	13						
			Retail	820	2,947 ksf													
28	4044-4068 Globe Avenue	City of Culver City [b]	Apartments	220	4 Units	133	2	11	13	8	5	13						
			Single Family Homes	220	10 Units													
29	11224 Venice Blvd	City of Culver City [b]	Automated Car Wash [c]	210	7 homes	76	42	2	44	44	43	87						
30	4241 Duquesne Ave	City of Culver City [b]	Convenience Store	948	0,864 ksf													
31	4034 La Salle Ave	City of Culver City [b]	Convenience Store	852	2,285 ksf	12	0	1	1	1	0	1						
32	3961 Tilden Ave	City of Culver City [b]	Condominium	231	2 Units	17	0	1	1	1	1	2						
33	10799 Washington Blvd	City of Culver City [b]	Condominium	231	2 Units	12	0	1	1	1	0	1						
34	8509 Higuera, 8476 Warner	City of Culver City [b]	Restaurant	932	2,000 ksf	254	12	10	22	12	8	20						
35	3873 Bentley Ave	City of Culver City [b]	School [d]	534	100 students	162	50	40	90	28	32	60						
36	4180 Duquesne Ave	City of Culver City [b]	Condominium	231	2 Units	12	0	1	1	1	0	1						
37	3832 Bentley Ave	City of Culver City [b]	Condominium	231	3 Units	17	0	1	1	1	1	2						
38	3030 La Cienega Blvd	City of Culver City [b]	Condominium	231	3 Units	17	0	1	1	1	1	2						
39	9919 Jefferson Blvd	City of Culver City [b]	Retail	820	1,250 ksf	208	26	4	30	5	24	29						
			Office	710	62,558 ksf													
40	10000 Washington Blvd	City of Culver City [b]	Office	710	-1,497 ksf	512	7	5	12	21	23	44						
			Retail	820	12,100 ksf													
41	9300 Culver Blvd	City of Culver City [b]	Retail	820	118,000 ksf	5,039	70	43	113	210	228	438						
42	8511 Warner Dr	City of Culver City [b]	Retail/Restaurant	820	51,520 ksf	2,200	31	18	49	92	99	191						
43	3434 Wesley St	City of Culver City [b]	Apartments	220	15 Units	147	8	14	22	7	9	16						
			Office	1710	14,237 ksf													
44	4227 Ince Blvd	City of Culver City [b]	Apartments	220	5 Units	33	1	2	3	2	1	3						
			Office	710	6 ksf													
45	3727 Robertson Blvd	City of Culver City [b]	Office	710	-6.8 ksf	-3	0	-3	-3	0	0	0						
			Office	710	-6.8 ksf													
46	3355-3361 South Overland Ave	City of Los Angeles [a]	Apartments	220	41 units	238	3	15	18	14	7	21						
47	8824 National Blvd	City of Culver City [b]	Hotel	310	148 Rooms	5,768	195	156	351	235	297	532						
			Retail	820	57,742 ksf													
			Office	710	196,333 ksf													
			Apartments	220	200 units													
			Apartments	220	8 units													
48	3814 Lenawee Ave	City of Culver City [b]	Assisted Living	254	95 units	403	8	91	99	19	12	31						
49	8888 Washington Blvd	City of Culver City [b]	Office	710	56,559 ksf	443	27	7	34	15	33	48						
			Retail	820	5,972 ksf													
50	8777 Washington Blvd	City of Culver City [b]	Office	1710	128,000 ksf	617	57	10	67	18	58	76						
51	9336 Washington Blvd/Culver Studio	City of Culver City [b]	Retail	820	4,500 ksf	3,013	259	187	446	69	305	374						
			Active Production Support (Office)	710	206,563 ksf													
52	9735 Washington Blvd	City of Culver City [b]	Passive Production Support	150	206,563 ksf	1,101	26	7	33	47	52	99						
			Office	710	55,477 ksf													
			Retail	820	12,249 ksf													
			High-Turnover Restaurant	932	2,147 ksf													
			Quality Restaurant	931	2,000 ksf													
Bank and Office	710	-16.2 ksf																
53	4051 and 4055 Jackson Ave	City of Culver City [b]	Condominium	231	3 units	17	1	0	1	1	1	2						
54	3710 and 3750 Robertson Boulevard	City of Culver City [b]	Apartments	220	141 units	819	11	51	62	49	24	73						
			Office	710	64,200 ksf													
55	8700,8710,8740, and 8750 Washington Blvd	City of Culver City [b]	Retail	820	30,042 ksf	1,283	18	11	29	53	58	111						
			Apartments	220	199 units													
			Office	710	17,250 ksf													
			Restaurant	931	5,000 ksf													
			Retail	820	17,750 ksf													
56	3568 Motor Ave	City of Los Angeles [a]	Apartments	220	42 units	244	3	15	18	15	7	22						
			Commercial	820	1.77 ksf	76	1	1	2	3	4	7						

Note:

ksf = one thousand square feet

[a] Trip generation estimates based on information provided by LADOT.

[b] Project description provided by City of Culver City, Trip generation estimates based on rates found from Trip Generation, 9th Edition, Institute of Transportation Engineers, 2012.

[c] Self-Service Car Wash (ITE 948) Daily Rate used because no Automated Car Wash Daily Rate is unavailable.

[d] Middle School/ Junior High School (ITE 522) used because no Private School Daily Rate is unavailable.

**ORIGINAL MOU (SIGNED APRIL 2018)**

## **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:

Project Name: **Park Century School**  
Project Address: **3939 Landmark St, Culver City, CA 90232**  
Project Description:

50 Students / 20 Staff

**See Attachment A-1 and Figure 1.**

Project Horizon Year: **2019** Ambient Growth Rate: **One (1.0) % Per Year**  
Directional Distribution: N: **25** % S: **20** % E: **25** % W: **30** %  
[Attach map(s) illustrating directional distribution percentages at all intersections and driveways.]

**See Figure 2.**

Trip Generation Rates: ITE Latest Edition / Other: **Driveway counts from school**  
[Show AM, PM and daily trip generation rates for each land use]

Land Use: **Private School**  
**Total In / Total Out**  
AM Trips: **46 / 32**  
MD Trips: **22 / 21**  
PM Trips: **8 / 17**

Attach Total Daily Trips Generation Calculations.

**See Attachment A-2, Table 1 for AM, MD, and PM Trip Generation Calculations.**

Prior to the start of any proposed project analysis, the Traffic Consultant shall:

1. Obtain a list of related projects from the Planning Division of Culver City and other affected jurisdictions;
2. Prepare a draft list of "related projects specific to the proposed project"; and
3. Obtain written approval from the City of the "related projects specific to the proposed project" list.

**See Table 2 and Figure 4.**

Study Intersection:

No. Intersection: **See Attachment A-3 and Figure 3** / Jurisdiction:

Residential Streets to be Studied:

No. Street Name: **See Figure 3** / Limits: / Jurisdiction:

- \* Gross Floor Area (GFA) shall be as defined in the most recent ITE publication.
- \*\* Indicate intersections subject to capacity analysis credit for advanced traffic signal control synchronization.
- \*\*\* Indicate non-signalized intersections to be studied.
- \*\*\*\* Use the same numbering system for all lists of intersections and figures in the traffic study.

Indicate Trip Credits to Be Requested (Amount Subject To City Approval):		Yes	No
1.	Existing Uses:	<input type="checkbox"/>	X
2.	Pass-By Trips:	<input type="checkbox"/>	X
3.	Internal Trip Capture:	<input type="checkbox"/>	X
4.	Transit Oriented Development (TOD)	<input type="checkbox"/>	X
5.	Transportation Demand Management (TDM)	<input type="checkbox"/>	X

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 I Developer I 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.

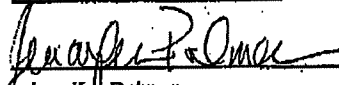

Congestion Management Plan (CMP):

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.

Signatures:

	<u>Property Owner / Applicant:</u>	<u>Developer / Applicant:</u>
Name (Signed):		
Name (Printed):	Jennifer Palmer	Paul Jennings
Title:	Director of Development and Community Affairs	
Company:	Park Century School	
Address:	3939 Landmark Street	11661 San Vicente Blvd., Suite 910
City / State / Zip:	Culver City, CA 90232	Los Angeles, CA 90049
Office:	310-840-0500 ext. 236	( 310 ) 231-1000
Fax:	( )	( )
Cell:	( )	( )
E-Mail:	jpalmer@parkcenturyschool.org	paul.jennings@teampcs.com

	<u>Traffic Consultant:</u>	
Name:	John Muggridge	Mike Samuelson
Title:	Principal	Transportation Planner
Company:	Fehr & Peers	Fehr & Peers
Address:	600 Wilshire Blvd, Suite 1050	600 Wilshire Blvd, Suite 1050
City / State / Zip:	Los Angeles, CA 90017	Los Angeles, CA 90017
Office:	( 213 ) 261-3050	( 213 ) 261-3050
Fax:	( )	( )
Cell:	( )	( )
E-Mail:	j.muggridge@fehrandpeers.com	m.samuelson@fehrandpeers.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:

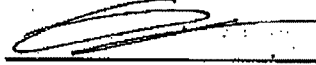
	<u>City of Los Angeles:</u>	<u>County of Los Angeles:</u>
Name (Signed):		
Name (Printed):		
Title:		
Department:		
Address:		
City / State / Zip:		
Office:	( )	( )
Fax:	( )	( )
Cell:	( )	( )
E-Mail:		

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

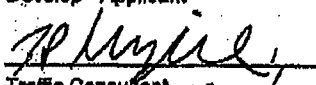
Approved By:

 2/22/18  
Property Owner - Applicant Date


Develop - Applicant

 2/22/18  
Date

Traffic Consultant

 2/6/18  
Date

City of Culver City

 1/2/2018  
Date

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

## ATTACHMENT A-1

### **Project Description:**

The Project will expand the Park Century School by 50 students and 20 staff. The site plan is illustrated in Figure 1. The project traffic will enter the site from the existing driveway on Landmark Street.

### **Project Analysis:**

#### *Intersection Level of Service*

The project will conduct a Level of Service analysis for eight total intersections in the study area, presented in Attachment A-2. All intersections will be analyzed during the morning, midday, and evening peak hour.

The project will conduct a Level of Service analysis for five signalized intersections that lie completely within the City of Culver City using the Intersection Capacity Utilization (ICU) method per the *City of Culver City Traffic Study Criteria, July 2012*. The project will conduct a Level of Service analysis for three signalized intersections that lie completely within the City of Los Angeles using the Circular 212 Critical Movement Analysis (CMA) per the *City of Los Angeles Transportation Impact Study Guidelines, December 2016*.

#### *Queuing Analysis, Traffic Management Program and Review*

The study will conduct a queuing analysis using the Sim Traffic software to analyze the potential for queuing beyond the school's parking lot, both during the construction period and with the completed project.

Following the queuing analysis, the study will include a Traffic Management Program (TMP), including a discussion of staggered pick-up and drop-off times and pick-up/drop-off procedures. The TMP will address the potential for queuing from early arrivals before the gates are open, and will show the path of travel on the site.

The project team will provide a follow up memorandum on the performance of the TMP, six months after Project occupancy.

#### *Left-Turn Storage Capacity for westbound left at Washington Boulevard & Landmark Street*

Using the synchro traffic software, the study will analyze if the length of the westbound left-turn pockets on Washington Boulevard is sufficient at Landmark Street. If it is determined that the length is not sufficient for the demand, the analysis will determine the appropriate length for the left-turn pockets.

#### *Bicycle and Pedestrian Connections and TDM Options*

The project team will coordinate with the City to include a discussion of bicycle and pedestrian travel options, including information on the proposed Exposition Station to Downtown Bicycle Connection cycle track. The report will note potential TDM options, including programs to encourage biking, walking, and transit, and the potential for shuttles that can reduce the number of vehicle trips to the project site.

*ITS Measures for Washington Boulevard*

The project will include as assessment of ITS measures that could potentially improve traffic congestion on Washington Boulevard.

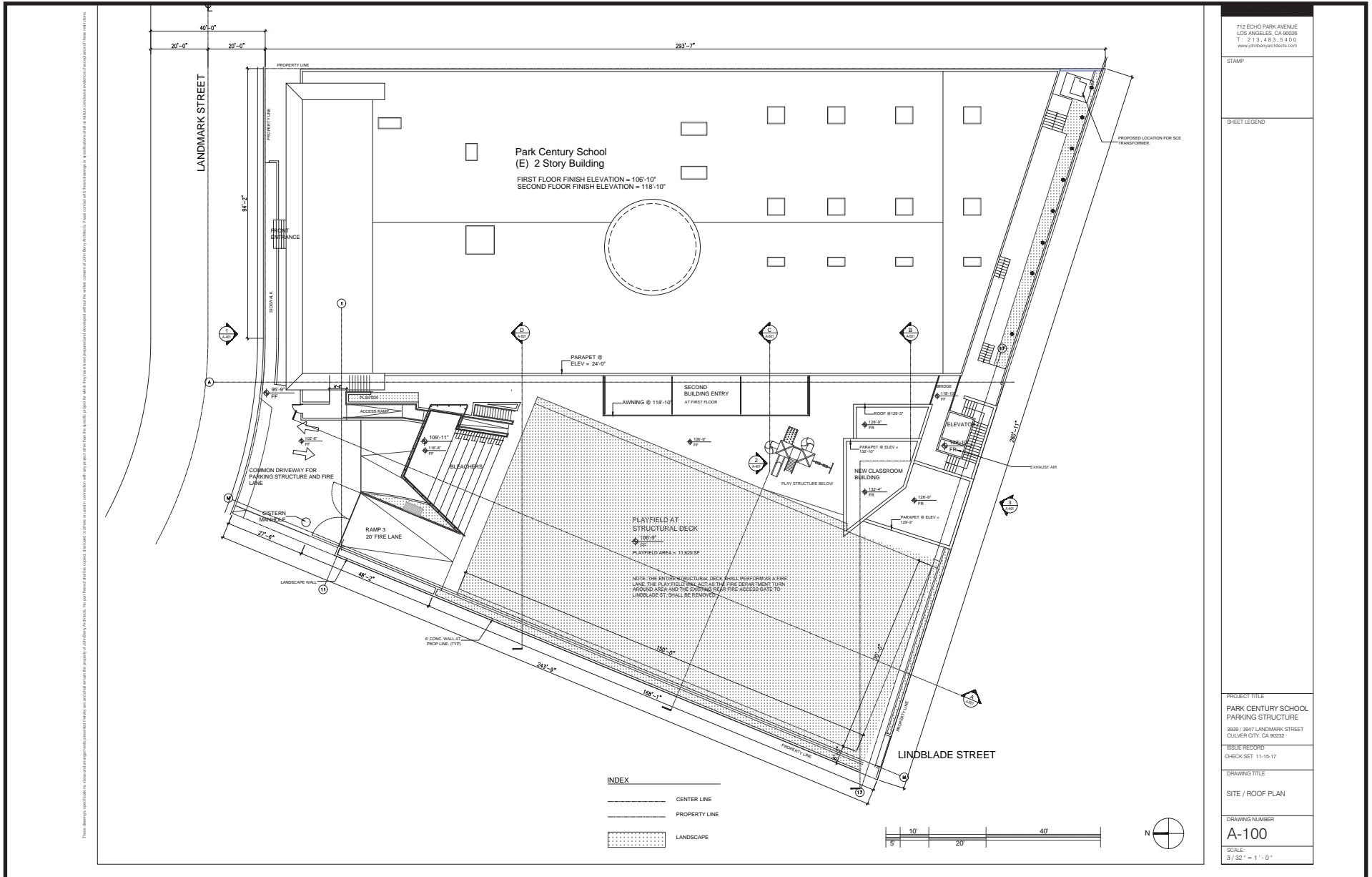


Figure 1  
 Park Century Site Plan





TABLE 1																
PARK CENTURY SCHOOL TRIP GENERATION																
		AM Total [a]			AM Rate per person		MD Total [b]			MD Rate per person		PM Total [b]			PM Rate per person	
Existing On-site Population	Size	Inbound	Outbound	Total	Inbound	Outbound	Inbound	Outbound	Total	Inbound	Outbound	Inbound	Outbound	Total	Inbound	Outbound
Students [a]	120	71	75	146	0.59	0.63	51	40	91	0.43	0.33	18	26	44	0.15	0.22
Staff [b]	60	49	0	49	0.82	0.00	0	17	17	0.00	0.28	0	16	16	0.00	0.27
Total Existing Trips		120	75	195			51	57	108			18	42	60		
Proposed Project	Size	Inbound	Outbound	Total	Inbound	Outbound	Inbound	Outbound	Total	Inbound	Outbound	Inbound	Outbound	Total	Inbound	Outbound
Students	170	100	107	207	0.59	0.63	73	56	129	0.43	0.33	26	37	63	0.15	0.22
Staff	80	66	0	66	0.82	0.00	0	22	22	0.00	0.28	0	22	22	0.00	0.27
Total Proposed Trips		166	107	273			73	78	151			26	59	85		
Net New Trips		46	32	78			22	21	43			8	17	25		

[a] Inbound trips without students are considered staff generated. All other trips are considered student generated. Staff trips also includes 10 parking spaces at adjacent off-site garage.

[b] Outbound trips without students are considered staff generated. All other trips are considered student generated. Staff trips also includes 10 inbound trips from parking spaces at an adjacent off-site garage. Based on based on the driveway counts of outbound trips without students in the MD (12) and PM (11), these 10 trips were split evenly

## ATTACHMENT A-2

### Trip Generation Rates

Table 1 presents the trip rates used to estimate trip generation for the Park Century School Project. Trip generation rates were calculated based on driveway counts at the school in fall 2017. Driveway counts were taken between 7-9 AM and 2-6 PM. Vehicles were classified as either staff trips or students trips based on if the a student was present in the car when either entering or exiting the school. In addition, staff trip generation rates incorporated 10 parking spaces that the school currently rent at the adjacent parking structure on Landmark Street. Trip rates were developed for staff and students for the morning (7-9 AM), midday (2-4 PM), and evening periods (4-6 PM).

The trip rates developed using existing conditions were used to estimate new trips for the school expansion.

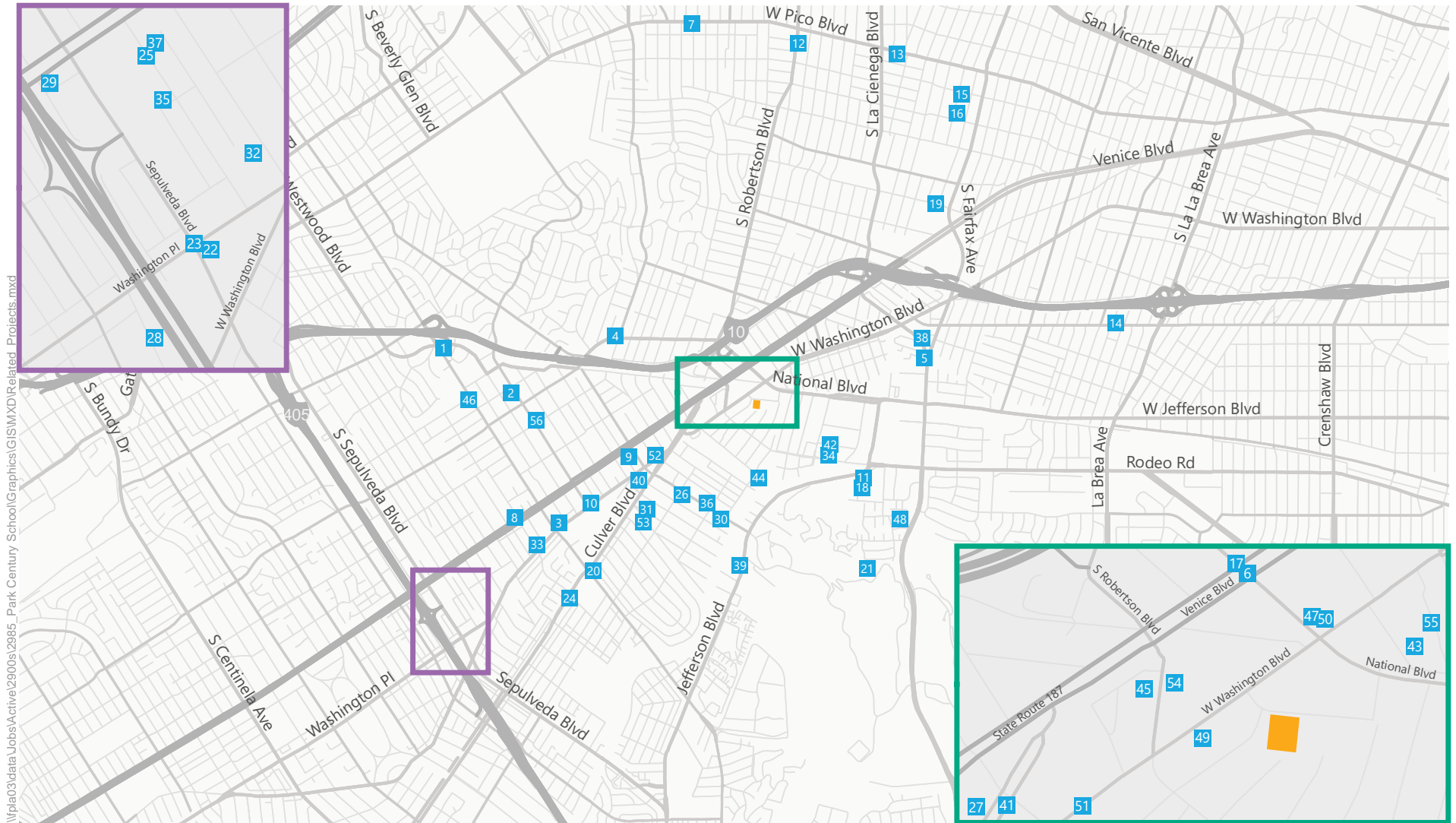
## **ATTACHMENT A-3**

### **Study Intersections**

A total of eight study intersections are proposed for the study (Illustrated in Figure 3). All intersections will be studied during the morning, mid-day, and evening peak hour. The jurisdiction for each intersection is shown in parenthesis:

1. Robertson Boulevard/National Boulevard (City of Los Angeles)
2. Venice Boulevard/ National Boulevard (City of Los Angeles)
3. Venice Boulevard/ Robertson Boulevard (City of Los Angeles)
4. Washington Boulevard/National Boulevard (City of Culver City)
5. Washington Boulevard/Landmark Street (City of Culver City)
6. Washington Boulevard/Robertson Boulevard (City of Culver City)
7. Washington Boulevard/Culver Boulevard (City of Culver City)
8. Culver Boulevard/Main Street (City of Culver City)





- Project Site
- Related Projects



Figure 4

## Park Century School Related Projects

**TABLE 2  
PARK CENTURY SCHOOL PROJECT  
RELATED PROJECTS**

No.	Project Location	City	Land Use	ITE Land Use Code	Size	Estimated Trip Generation						
						Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
						In	Out	Total	In	Out	Total	
1	10612 W National Blvd	City of Los Angeles [a]	Coffeeshop		1,726 ksf	636	42	42	84	15	16	31
2	3417 S Motor Ave	City of Los Angeles [a]	Retail Apartments		2 ksf 85 Units	0	8	34	42	30	20	50
3	10601 Washington Blvd	City of Los Angeles [a]	Apartments		126 Units	2,343	64	84	148	123	91	214
			Office		23 ksf							
			Retail		9 ksf							
			Other		4.5 ksf							
			Other		4.5 ksf							
4	9815 W National Blvd	City of Los Angeles [a]	Gas Station		12 fueling positions	977	30	31	61	52	53	105
5	3221 S La Cienega Blvd	City of Los Angeles [a]	Mixed-Use			10,136	319	418	737	467	382	849
6	8900 W Venice Blvd	City of Los Angeles [a]	Mixed-Use Apartments			4,124	173	83	256	127	174	301
7	9300 W Pico Blvd	City of Los Angeles [a]	Other		64 Units	505	0	0	32	0	0	49
			Other		99,680 ksf							
			Other		8,269 ksf							
8	10801 W Venice Blvd	City of Los Angeles [a]	Retail		1,637 ksf	430	-5	25	20	41	18	59
9	3822 S Dunn Dr	City of Los Angeles [a]	Mixed-Use		Other							
10	10375 W Washington Blvd	City of Los Angeles [a]	Apartments		86 Units	543	9	33	42	32	18	50
11	5950 W Jefferson Blvd	City of Los Angeles [a]	Mixed-Use			579	-3	35	32	31	11	42
12	1434 W Robertson Blvd	City of Los Angeles [a]	Office		70 ksf	716	65	13	78	23	58	81
13	6132 W Pico Blvd	City of Los Angeles [a]	Hotel		112 Rooms	530	30	17	47	17	16	33
			Retail		1.4 ksf	807	5	34	39	47	30	77
			Apartments		100 Units							
14	5181 W Adams Blvd	City of Los Angeles [a]	Apartments		72 Units	3,951	59	62	121	173	172	345
15	1500 S Hi Point St	City of Los Angeles [a]	Retail		33,860 ksf	300	5	18	23	18	10	28
16	1556 S Hi Point St	City of Los Angeles [a]	Apartments		45 Units	300	5	18	23	18	10	28
17	8900 W National Blvd	City of Los Angeles [a]	Apartments		45 Units	300	5	18	23	18	10	28
18	3640 S Holdrege Avenue	City of Los Angeles [a]	Retail		23,795 ksf	1,589	67	47	114	57	60	117
19	5930 W Sawyer St	City of Los Angeles [a]	Office		25,032 ksf	187	0	0	31	0	0	29
20	10638 Culver Blvd	City of Los Angeles [a]	Office		60 Units	584	10	35	45	39	23	62
21	5950 Stoneview Dr	City of Culver City [b]	Convenience Store	945	2,676 ksf	83	45	48	93	44	43	87
22	11198 Washington Place	City of Culver City [b]	Park	412	4 acres	22	2	3	5	1	1	2
			Office	710	4,000 ksf							
23	11197 Washington Place	City of Culver City [b]	Restaurant	820	3,850 ksf	553	26	27	53	26	17	43
24	10808 Culver Blvd	City of Culver City [b]	Restaurant	932	0,500 ksf	78	42	44	86	42	40	82
25	3837 Bentley Ave	City of Culver City [b]	Convenience Store	852	2,500 ksf	78	42	44	86	42	40	82
26	4109-41111 Duquesne Ave	City of Culver City [b]	Museum	580	12,596 ksf	-31	2	-11	-9	-1	0	-1
27	9355 Culver Blvd	City of Culver City [b]	Armory/mini-warehouse	151	-12,596 ksf	12	0	1	1	1	0	1
			Condominium	231	2 Units							
28	4044-4068 Globe Avenue	City of Culver City [b]	Apartments	220	2 Units	13	0	1	1	1	0	1
29	11224 Venice Blvd	City of Culver City [b]	Retail	820	2,947 ksf	152	2	5	7	7	6	13
			Apartments	220	4 Units							
30	4241 Duquesne Ave	City of Culver City [b]	Apartments	220	10 Units	133	2	11	13	8	5	13
31	4034 La Salle Ave	City of Culver City [b]	Single Family Homes	210	7 homes	76	42	2	44	44	43	87
32	3961 Tilden Ave	City of Culver City [b]	Automated Car Wash [c]	948	0,864 ksf							
33	10799 Washington Blvd	City of Culver City [b]	Convenience Store	852	2,285 ksf	12	0	1	1	1	0	1
34	8509 Higuera, 8476 Warner	City of Culver City [b]	Condominium	231	2 Units	17	0	1	1	1	1	2
35	3873 Bentley Ave	City of Culver City [b]	Condominium	231	3 Units	12	0	1	1	1	1	2
36	4180 Duquesne Ave	City of Culver City [b]	Condominium	231	3 Units	17	0	1	1	1	1	2
37	3832 Bentley Ave	City of Culver City [b]	Condominium	231	3 Units	17	0	1	1	1	1	2
38	3030 La Cienega Blvd	City of Culver City [b]	Condominium	231	3 Units	17	0	1	1	1	1	2
39	9919 Jefferson Blvd	City of Culver City [b]	Retail	820	1,250 ksf	53	1	0	1	2	3	5
40	10000 Washington Blvd	City of Culver City [b]	Office	710	62,558 ksf	208	26	4	30	5	24	29
41	9300 Culver Blvd	City of Culver City [b]	Office	710	-1,497 ksf	512	7	5	12	21	23	44
			Retail	820	12,100 ksf							
42	8511 Warner Dr	City of Culver City [b]	Retail	820	118,000 ksf	5,039	70	43	113	210	228	438
43	3434 Wesley St	City of Culver City [b]	Retail/Restaurant	820	51,520 ksf	2,200	31	18	49	92	99	191
44	4227 Ince Blvd	City of Culver City [b]	Apartments	220	15 Units	147	8	14	22	7	9	16
45	3727 Robertson Blvd	City of Culver City [b]	Office	1710	14,237 ksf	33	1	2	3	2	1	3
46	3355-3361 South Overland Ave	City of Los Angeles [a]	Apartments	220	5 Units	-3	0	-3	-3	0	0	0
47	8824 National Blvd	City of Culver City [b]	Office	710	-6.8 ksf	238	3	15	18	14	7	21
			Apartments	220	41 units							
48	3814 Lenawee Ave	City of Culver City [b]	Hotel	310	148 Rooms	5,768	195	156	351	235	297	532
			Retail	820	57,742 ksf							
			Office	710	196,333 ksf							
49	8888 Washington Blvd	City of Culver City [b]	Apartments	220	200 units	403	8	91	99	19	12	31
50	8777 Washington Blvd	City of Culver City [b]	Assisted Living	254	95 units	443	27	7	34	15	33	48
			Office	710	56,559 ksf							
51	9336 Washington Blvd/Culver Studio	City of Culver City [b]	Retail	820	5,972 ksf	617	57	10	67	18	58	76
			Office	1710	128,000 ksf							
			Retail	820	4,500 ksf							
52	9735 Washington Blvd	City of Culver City [b]	Active Production Support (Office)	710	206,563 ksf	3,013	259	187	446	69	305	374
			Passive Production Support	150	206,563 ksf							
			Office	710	55,477 ksf							
			Retail	820	12,249 ksf							
			High-Turnover Restaurant	932	2,147 ksf							
53	4051 and 4055 Jackson Ave	City of Culver City [b]	Quality Restaurant	931	2,000 ksf	1,101	26	7	33	47	52	99
			Bank and Office	710	-16.2 ksf							
54	3710 and 3750 Robertson Boulevard	City of Culver City [b]	Condominium	231	3 units	17	1	0	1	1	1	2
55	8700,8710,8740, and 8750 Washington Blvd	City of Culver City [b]	Apartments	220	141 units	819	11	51	62	49	24	73
			Office	710	64,200 ksf	213	27	4	31	5	25	30
			Retail	820	30,042 ksf	1,283	18	11	29	53	58	111
56	3568 Motor Ave	City of Los Angeles [a]	Apartments	220	199 units	2,607	33	80	113	155	72	227
			Office	710	17,250 ksf							
			Restaurant	931	5,000 ksf							
57			Retail	820	17,750 ksf	244	3	15	18	15	7	22
			Apartments	220	42 units							
58			Commercial	820	1.77 ksf	76	1	1	2	3	4	7

Note:

ksf = one thousand square feet

[a] Trip generation estimates based on information provided by LADOT.

[b] Project description provided by City of Culver City, Trip generation estimates based on rates found from Trip Generation, 9th Edition, Institute of Transportation Engineers, 2012.

[c] Self-Service Car Wash (ITE 948) Daily Rate used because no Automated Car Wash Daily Rate is unavailable.

[d] Middle School/ Junior High School (ITE 522) used because no Private School Daily Rate is unavailable.

**APPENDIX D:  
SIMTRAFFIC RESULTS**



**EXISTING**

Intersection: 4: Robertson BI & Washington BI

Movement	EB	EB	EB	EB	B14	B14	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	R	T	T	L	T	T	R	L	L
Maximum Queue (ft)	130	260	261	115	130	170	150	664	671	130	189	210
Average Queue (ft)	67	194	208	90	15	28	124	640	639	110	67	155
95th Queue (ft)	143	280	295	155	71	99	188	657	662	169	157	241
Link Distance (ft)		178	178		274	274		620	620			
Upstream Blk Time (%)		15	20					54	50			
Queuing Penalty (veh)		67	87					0	0			
Storage Bay Dist (ft)	105			90			125			105	185	185
Storage Blk Time (%)	3	28	32	1			18	52	53	14	0	1
Queuing Penalty (veh)	8	19	63	4			103	126	148	83	0	2

Intersection: 4: Robertson BI & Washington BI

Movement	NB	NB	NB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	TR
Maximum Queue (ft)	451	390	85	87	195	448	382
Average Queue (ft)	263	215	28	9	96	267	229
95th Queue (ft)	402	337	86	49	215	389	340
Link Distance (ft)	627	627				486	486
Upstream Blk Time (%)						0	0
Queuing Penalty (veh)						0	0
Storage Bay Dist (ft)			60	170	170		
Storage Blk Time (%)	18	44	1	0	0	29	
Queuing Penalty (veh)	33	19	2	0	0	24	

Intersection: 5: Landmark St & Washington BI

Movement	EB	EB	EB	WB	WB	WB	B14	B14	B14	NB	NB
Directions Served	T	T	R	L	T	T	T	T		L	R
Maximum Queue (ft)	214	246	120	273	337	350	43	68	6	80	77
Average Queue (ft)	111	128	56	65	142	168	2	4	0	46	33
95th Queue (ft)	203	229	130	165	312	338	31	33	6	78	69
Link Distance (ft)	708	708			274	274	178	178	178	15	15
Upstream Blk Time (%)				0	1	2	0			40	10
Queuing Penalty (veh)				0	10	17	0			28	7
Storage Bay Dist (ft)			95	300							
Storage Blk Time (%)		8	0	0	1						
Queuing Penalty (veh)		11	1	0	1						

Intersection: 6: National BI & Washington BI

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	114	313	319	105	498	516	129	494	100	149	374	61
Average Queue (ft)	69	149	160	58	312	340	42	285	57	99	143	12
95th Queue (ft)	128	267	271	122	475	488	115	490	127	167	311	41
Link Distance (ft)		646	646		708	708		490			671	671
Upstream Blk Time (%)								5			0	
Queuing Penalty (veh)								0			0	
Storage Bay Dist (ft)	90			80			105		75	125		
Storage Blk Time (%)	18	15		4	26		0	51	0	10	7	
Queuing Penalty (veh)	67	12		21	20		0	63	2	27	10	

Intersection: 8: Platform Driveway Gate

Movement	WB
Directions Served	T
Maximum Queue (ft)	65
Average Queue (ft)	33
95th Queue (ft)	80
Link Distance (ft)	9
Upstream Blk Time (%)	1
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: Landmark St & Platform Driveway

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	38	81	80
Average Queue (ft)	13	55	21
95th Queue (ft)	37	83	56
Link Distance (ft)	9	28	15
Upstream Blk Time (%)	2	5	2
Queuing Penalty (veh)	0	7	4
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: Landmark St & Park Century School

Movement	EB	NB	SB	SB
Directions Served	LR	LT	T	R
Maximum Queue (ft)	34	26	21	61
Average Queue (ft)	29	1	1	22
95th Queue (ft)	44	13	11	45
Link Distance (ft)	4	534	28	28
Upstream Blk Time (%)	5		0	3
Queuing Penalty (veh)	3		0	4
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15:

Movement	WB
Directions Served	R
Maximum Queue (ft)	46
Average Queue (ft)	43
95th Queue (ft)	58
Link Distance (ft)	4
Upstream Blk Time (%)	1
Queuing Penalty (veh)	1
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 16: Park Century School Loading

Movement	EB	EB
Directions Served	T	R
Maximum Queue (ft)	104	50
Average Queue (ft)	61	9
95th Queue (ft)	109	40
Link Distance (ft)	51	
Upstream Blk Time (%)	31	0
Queuing Penalty (veh)	25	0
Storage Bay Dist (ft)		25
Storage Blk Time (%)	61	0
Queuing Penalty (veh)	4	0

Intersection: 20: Park Century School Loading

Movement	WB	WB
Directions Served	T	R
Maximum Queue (ft)	36	34
Average Queue (ft)	30	12
95th Queue (ft)	44	38
Link Distance (ft)	36	
Upstream Blk Time (%)	5	1
Queuing Penalty (veh)	4	0
Storage Bay Dist (ft)		25
Storage Blk Time (%)	5	1
Queuing Penalty (veh)	1	1

Intersection: 22: Park Century School Loading

Movement	EB	SB	SB	B17
Directions Served	T	L	R	T
Maximum Queue (ft)	38	59	21	16
Average Queue (ft)	6	31	3	1
95th Queue (ft)	28	52	16	13
Link Distance (ft)	87	21		39
Upstream Blk Time (%)		7	0	0
Queuing Penalty (veh)		6	0	0
Storage Bay Dist (ft)			25	
Storage Blk Time (%)		7	0	
Queuing Penalty (veh)		1	0	

Network Summary

Network wide Queuing Penalty: 1147
------------------------------------

Intersection: 4:Robertson BI & Washington BI

Movement	EB	EB	EB	EB	B14	B14	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	R	T	T	L	T	T	R	L	L
Maximum Queue (ft)	129	277	280	115	362	368	150	350	310	130	184	210
Average Queue (ft)	63	252	253	99	305	313	115	199	156	82	62	148
95th Queue (ft)	138	269	269	152	436	433	176	324	268	151	143	244
Link Distance (ft)		178	178		274	274		620	620			
Upstream Blk Time (%)		56	57		27	31						
Queuing Penalty (veh)		360	365		171	200						
Storage Bay Dist (ft)	105			90			125			105	185	185
Storage Blk Time (%)	1	61	60	4			9	18	12	3	0	1
Queuing Penalty (veh)	6	32	163	21			25	31	16	9	0	3

Intersection: 4:Robertson BI & Washington BI

Movement	NB	NB	NB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	TR
Maximum Queue (ft)	434	386	85	153	195	492	460
Average Queue (ft)	258	222	52	31	144	327	276
95th Queue (ft)	382	340	108	108	242	488	420
Link Distance (ft)	627	627				486	486
Upstream Blk Time (%)						2	0
Queuing Penalty (veh)						0	0
Storage Bay Dist (ft)			60	170	170		
Storage Blk Time (%)	21	46	2	0	1	36	
Queuing Penalty (veh)	33	46	7	0	3	57	

Intersection: 5:Landmark St & Washington BI

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	708	727	120	169	267	274	93	91
Average Queue (ft)	463	478	56	74	91	96	62	54
95th Queue (ft)	813	824	147	148	223	220	91	92
Link Distance (ft)	708	708			274	274	15	15
Upstream Blk Time (%)	7	10			0	0	61	47
Queuing Penalty (veh)	46	61			0	0	61	47
Storage Bay Dist (ft)			95	300				
Storage Blk Time (%)		52	0		0			
Queuing Penalty (veh)		33	3		0			

Intersection: 6: National BI & Washington BI

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	114	484	493	105	308	334	103	218	100	150	567	386
Average Queue (ft)	60	207	223	59	145	165	26	86	42	122	267	102
95th Queue (ft)	125	388	419	118	273	286	70	163	100	180	620	451
Link Distance (ft)		646	646		708	708		490			671	671
Upstream Blk Time (%)		0	0								11	8
Queuing Penalty (veh)		0	0								0	0
Storage Bay Dist (ft)	90			80			105		75	125		
Storage Blk Time (%)	3	26		13	11		0	12	1	35	11	
Queuing Penalty (veh)	14	24		36	7		0	14	2	91	17	

Intersection: 8: Platform Driveway Gate

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	99	71
Average Queue (ft)	11	40
95th Queue (ft)	56	85
Link Distance (ft)	158	9
Upstream Blk Time (%)	0	1
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Landmark St & Platform Driveway

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	62	106	69
Average Queue (ft)	35	65	25
95th Queue (ft)	65	109	56
Link Distance (ft)	9	28	15
Upstream Blk Time (%)	30	37	7
Queuing Penalty (veh)	16	55	9
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: Landmark St & Park Century School

Movement	EB	NB	SB	SB
Directions Served	LR	LT	T	R
Maximum Queue (ft)	53	136	53	46
Average Queue (ft)	25	24	4	12
95th Queue (ft)	54	97	26	32
Link Distance (ft)	4	534	28	28
Upstream Blk Time (%)	12		1	1
Queuing Penalty (veh)	5		1	1
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15:

Movement	EB	WB
Directions Served	T	R
Maximum Queue (ft)	40	46
Average Queue (ft)	3	26
95th Queue (ft)	22	63
Link Distance (ft)	8	4
Upstream Blk Time (%)	2	0
Queuing Penalty (veh)	1	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 16: Park Century School Loading

Movement	EB
Directions Served	T
Maximum Queue (ft)	96
Average Queue (ft)	40
95th Queue (ft)	83
Link Distance (ft)	51
Upstream Blk Time (%)	14
Queuing Penalty (veh)	6
Storage Bay Dist (ft)	
Storage Blk Time (%)	42
Queuing Penalty (veh)	0

Intersection: 20: Park Century School Loading

Movement	WB	WB
Directions Served	T	R
Maximum Queue (ft)	36	33
Average Queue (ft)	17	3
95th Queue (ft)	44	18
Link Distance (ft)	36	
Upstream Blk Time (%)	2	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		25
Storage Blk Time (%)	2	0
Queuing Penalty (veh)	0	0

Intersection: 22: Park Century School Loading

Movement	EB	SB	SB	B17
Directions Served	T	L	R	T
Maximum Queue (ft)	41	44	19	5
Average Queue (ft)	15	17	2	0
95th Queue (ft)	43	44	12	6
Link Distance (ft)	87	21		39
Upstream Blk Time (%)		2	0	0
Queuing Penalty (veh)		1	0	0
Storage Bay Dist (ft)			25	
Storage Blk Time (%)		2	0	
Queuing Penalty (veh)		0	0	

Network Summary

Network wide Queuing Penalty: 2096

Intersection: 4: Robertson Bl & Washington Bl

Movement	EB	EB	EB	EB	B14	B14	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	R	T	T	L	T	T	R	L	L
Maximum Queue (ft)	129	282	280	116	371	372	150	372	347	130	192	210
Average Queue (ft)	74	253	254	91	322	323	118	204	160	78	106	177
95th Queue (ft)	145	265	267	156	415	405	181	330	282	152	194	252
Link Distance (ft)		178	178		274	274		620	620			
Upstream Blk Time (%)		53	54		28	32						
Queuing Penalty (veh)		361	366		193	216						
Storage Bay Dist (ft)	105			90			125			105	185	185
Storage Blk Time (%)	4	58	59	2			11	19	14	2	0	4
Queuing Penalty (veh)	22	40	156	10			33	31	17	7	2	14

Intersection: 4: Robertson Bl & Washington Bl

Movement	NB	NB	NB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	TR
Maximum Queue (ft)	601	579	85	168	195	503	473
Average Queue (ft)	377	346	64	41	146	360	310
95th Queue (ft)	639	603	115	120	240	542	488
Link Distance (ft)	627	627				486	486
Upstream Blk Time (%)	5	4				7	5
Queuing Penalty (veh)	0	0				0	0
Storage Bay Dist (ft)			60	170	170		
Storage Blk Time (%)	36	57	6	0	1	41	
Queuing Penalty (veh)	73	96	20	0	4	69	

Intersection: 5: Landmark St & Washington Bl

Movement	EB	EB	EB	WB	WB	WB	B14	B14	NB	NB
Directions Served	T	T	R	L	T	T	T	T	L	R
Maximum Queue (ft)	740	750	120	212	305	296	20	9	87	95
Average Queue (ft)	570	590	45	88	111	120	1	1	57	69
95th Queue (ft)	890	898	132	188	252	250	20	10	93	102
Link Distance (ft)	708	708			274	274	178	178	15	15
Upstream Blk Time (%)	6	10		0	1	1			45	56
Queuing Penalty (veh)	40	64		0	4	3			43	54
Storage Bay Dist (ft)			95	300						
Storage Blk Time (%)		63	1	0	1					
Queuing Penalty (veh)		32	3	2	1					

Intersection: 6: National BI & Washington BI

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	115	684	688	105	483	493	129	392	100	149	352	124
Average Queue (ft)	101	542	542	76	249	269	42	185	61	87	113	12
95th Queue (ft)	143	833	826	133	549	553	112	323	126	151	260	85
Link Distance (ft)		646	646		708	708		490			671	671
Upstream Blk Time (%)		27	33		2	1					0	0
Queuing Penalty (veh)		0	0		7	3					0	0
Storage Bay Dist (ft)	90			80			105		75	125		
Storage Blk Time (%)	26	47		40	17		0	34	2	6	6	
Queuing Penalty (veh)	138	77		131	12		0	47	6	16	7	

Intersection: 8: Platform Driveway Gate

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	127	71
Average Queue (ft)	19	53
95th Queue (ft)	78	90
Link Distance (ft)	158	9
Upstream Blk Time (%)	0	4
Queuing Penalty (veh)	0	3
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Landmark St & Platform Driveway

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	62	93	75
Average Queue (ft)	46	48	34
95th Queue (ft)	69	93	64
Link Distance (ft)	9	28	15
Upstream Blk Time (%)	33	24	11
Queuing Penalty (veh)	38	18	13
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: Landmark St & Park Century School

Movement	EB	NB	SB	SB
Directions Served	LR	LT	T	R
Maximum Queue (ft)	48	46	12	20
Average Queue (ft)	22	3	0	6
95th Queue (ft)	48	22	5	19
Link Distance (ft)	4	534	28	28
Upstream Blk Time (%)	4		0	0
Queuing Penalty (veh)	1		0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15:

Movement	EB	WB
Directions Served	T	R
Maximum Queue (ft)	60	46
Average Queue (ft)	32	18
95th Queue (ft)	79	54
Link Distance (ft)	8	4
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 16: Park Century School Loading

Movement	EB	NB
Directions Served	T	R
Maximum Queue (ft)	55	33
Average Queue (ft)	12	10
95th Queue (ft)	41	27
Link Distance (ft)	51	109
Upstream Blk Time (%)	1	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)	13	
Queuing Penalty (veh)	0	

---

Intersection: 20: Park Century School Loading

---

Movement	WB
Directions Served	T
Maximum Queue (ft)	33
Average Queue (ft)	13
95th Queue (ft)	39
Link Distance (ft)	36
Upstream Blk Time (%)	1
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	1
Queuing Penalty (veh)	0

---

Intersection: 22: Park Century School Loading

---

Movement	SB	SB
Directions Served	L	R
Maximum Queue (ft)	33	21
Average Queue (ft)	12	3
95th Queue (ft)	36	16
Link Distance (ft)	21	
Upstream Blk Time (%)	1	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		25
Storage Blk Time (%)	1	0
Queuing Penalty (veh)	0	0

---

Network Summary

---

Network wide Queuing Penalty: 2493

---

## **FUTURE WITH CONSTRUCTION**

Intersection: 4: Robertson BI & Washington BI

Movement	EB	EB	EB	EB	B14	B14	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	R	T	T	L	T	T	R	L	L
Maximum Queue (ft)	129	252	259	115	136	146	150	670	670	130	192	210
Average Queue (ft)	87	163	171	78	21	23	120	639	640	115	95	174
95th Queue (ft)	158	282	289	152	117	119	191	660	655	166	191	251
Link Distance (ft)		178	178		274	274		620	620			
Upstream Blk Time (%)		15	13		0	0		53	53			
Queuing Penalty (veh)		80	69		2	2		0	0			
Storage Bay Dist (ft)	105			90			125			105	185	185
Storage Blk Time (%)	16	19	27	2			12	55	53	18	0	3
Queuing Penalty (veh)	57	27	62	7			74	138	165	107	0	10

Intersection: 4: Robertson BI & Washington BI

Movement	NB	NB	NB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	TR
Maximum Queue (ft)	508	427	85	136	195	496	487
Average Queue (ft)	314	262	33	17	117	341	297
95th Queue (ft)	460	389	92	76	232	501	455
Link Distance (ft)	627	627				486	486
Upstream Blk Time (%)	0					3	1
Queuing Penalty (veh)	0					0	0
Storage Bay Dist (ft)			60	170	170		
Storage Blk Time (%)	26	51	1	0	0	40	
Queuing Penalty (veh)	58	26	2	0	0	46	

Intersection: 5: Landmark St & Washington BI

Movement	EB	EB	EB	WB	WB	WB	B14	B14	NB	NB
Directions Served	T	T	R	L	T	T	T	T	L	R
Maximum Queue (ft)	228	251	120	249	338	351	69	108	76	75
Average Queue (ft)	75	103	36	62	148	173	4	7	44	35
95th Queue (ft)	166	203	105	161	314	341	40	52	78	71
Link Distance (ft)	708	708			274	274	178	178	15	15
Upstream Blk Time (%)				0	2	3	0	0	38	10
Queuing Penalty (veh)				0	14	27	0	1	27	7
Storage Bay Dist (ft)			95	300						
Storage Blk Time (%)		6	0	0	2					
Queuing Penalty (veh)		8	0	0	2					

Intersection: 6: National BI & Washington BI

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	115	689	688	105	608	649	129	519	100	149	471	270
Average Queue (ft)	112	647	611	62	367	392	45	320	60	111	193	84
95th Queue (ft)	123	766	842	125	586	607	120	541	129	177	444	255
Link Distance (ft)		646	646		708	708		490			671	671
Upstream Blk Time (%)		83	37		1	1		8			2	1
Queuing Penalty (veh)		0	0		7	10		0			0	0
Storage Bay Dist (ft)	90			80			105		75	125		
Storage Blk Time (%)	93	7		18	31		0	56	1	26	6	
Queuing Penalty (veh)	414	12		105	24		0	69	5	71	10	

Intersection: 7: Landmark St & Adjacent Use Driveway

Movement	EB	WB
Directions Served	R	LT
Maximum Queue (ft)	64	63
Average Queue (ft)	31	59
95th Queue (ft)	58	71
Link Distance (ft)	56	8
Upstream Blk Time (%)	1	1
Queuing Penalty (veh)	0	2
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Landmark St & Platform Driveway

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	45	80	74
Average Queue (ft)	14	59	26
95th Queue (ft)	41	98	58
Link Distance (ft)	20	14	15
Upstream Blk Time (%)	3	5	1
Queuing Penalty (veh)	0	6	3
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10:

Movement	WB	NB
Directions Served	R	T
Maximum Queue (ft)	60	20
Average Queue (ft)	50	1
95th Queue (ft)	83	13
Link Distance (ft)	1	183
Upstream Blk Time (%)	2	
Queuing Penalty (veh)	1	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 15:

Movement	B25	SB
Directions Served	T	R
Maximum Queue (ft)	74	75
Average Queue (ft)	61	35
95th Queue (ft)	80	62
Link Distance (ft)	14	32
Upstream Blk Time (%)	0	4
Queuing Penalty (veh)	0	7
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 20:

Movement	NB
Directions Served	TR
Maximum Queue (ft)	43
Average Queue (ft)	21
95th Queue (ft)	38
Link Distance (ft)	142
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 22: Platform Driveway Gate

Movement	WB
Directions Served	T
Maximum Queue (ft)	71
Average Queue (ft)	46
95th Queue (ft)	85
Link Distance (ft)	20
Upstream Blk Time (%)	3
Queuing Penalty (veh)	2
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 26: Park Century School Temporary Loading

Movement	NB	B8
Directions Served	L	T
Maximum Queue (ft)	98	83
Average Queue (ft)	44	54
95th Queue (ft)	82	90
Link Distance (ft)	92	8
Upstream Blk Time (%)	1	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 1771
------------------------------------

Intersection: 4: Robertson BI & Washington BI

Movement	EB	EB	EB	EB	B14	B14	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	R	T	T	L	T	T	R	L	L
Maximum Queue (ft)	130	274	278	115	361	367	150	411	373	130	195	210
Average Queue (ft)	108	252	253	102	293	303	124	222	194	99	95	175
95th Queue (ft)	159	269	267	152	431	424	179	356	324	160	191	253
Link Distance (ft)		178	178		274	274		620	620			
Upstream Blk Time (%)		53	51		21	25						
Queuing Penalty (veh)		403	387		161	189						
Storage Bay Dist (ft)	105			90			125			105	185	185
Storage Blk Time (%)	27	49	55	6			13	23	18	7	1	4
Queuing Penalty (veh)	141	76	184	32			42	41	31	22	3	14

Intersection: 4: Robertson BI & Washington BI

Movement	NB	NB	NB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	TR
Maximum Queue (ft)	528	481	85	169	195	529	534
Average Queue (ft)	319	279	55	57	160	493	477
95th Queue (ft)	484	434	109	136	254	569	583
Link Distance (ft)	627	627				486	486
Upstream Blk Time (%)	0	0				52	44
Queuing Penalty (veh)	0	0				0	0
Storage Bay Dist (ft)			60	170	170		
Storage Blk Time (%)	31	54	3	0	1	64	
Queuing Penalty (veh)	61	60	10	0	4	124	

Intersection: 5: Landmark St & Washington BI

Movement	EB	EB	EB	WB	WB	WB	B14	B14	NB	NB
Directions Served	T	T	R	L	T	T	T	T	L	R
Maximum Queue (ft)	735	745	120	228	295	296	13	21	80	86
Average Queue (ft)	497	524	46	74	109	126	1	1	61	54
95th Queue (ft)	869	882	132	159	253	258	17	14	87	90
Link Distance (ft)	708	708			274	274	178	178	15	15
Upstream Blk Time (%)	3	6		0	1	1			55	39
Queuing Penalty (veh)	26	45		0	3	3			56	40
Storage Bay Dist (ft)			95	300						
Storage Blk Time (%)		57	0	0	1					
Queuing Penalty (veh)		36	1	0	0					

Intersection: 6: National BI & Washington BI

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	115	692	691	105	460	476	103	246	100	150	665	485
Average Queue (ft)	112	627	623	73	234	258	28	97	49	138	452	278
95th Queue (ft)	130	815	812	129	489	511	74	189	109	180	845	795
Link Distance (ft)		646	646		708	708		490			671	671
Upstream Blk Time (%)		55	48		0	1					34	21
Queuing Penalty (veh)		0	0		2	3					0	0
Storage Bay Dist (ft)	90			80			105		75	125		
Storage Blk Time (%)	57	29		36	19		0	14	1	62	8	
Queuing Penalty (veh)	351	72		124	11		0	18	3	165	15	

Intersection: 7: Landmark St & Adjacent Use Driveway

Movement	EB	WB
Directions Served	R	LT
Maximum Queue (ft)	52	62
Average Queue (ft)	25	55
95th Queue (ft)	53	80
Link Distance (ft)	56	8
Upstream Blk Time (%)	1	1
Queuing Penalty (veh)	0	1
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Landmark St & Platform Driveway

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	73	81	76
Average Queue (ft)	41	52	25
95th Queue (ft)	74	101	56
Link Distance (ft)	20	14	15
Upstream Blk Time (%)	23	19	7
Queuing Penalty (veh)	16	26	10
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10:

Movement	WB	NB
Directions Served	R	T
Maximum Queue (ft)	60	75
Average Queue (ft)	34	10
95th Queue (ft)	80	46
Link Distance (ft)	1	183
Upstream Blk Time (%)	3	
Queuing Penalty (veh)	1	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 15:

Movement	B25	SB	B17
Directions Served	T	R	T
Maximum Queue (ft)	74	76	3
Average Queue (ft)	64	31	0
95th Queue (ft)	84	59	3
Link Distance (ft)	14	32	142
Upstream Blk Time (%)	0	3	
Queuing Penalty (veh)	0	3	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 20:

Movement	NB
Directions Served	TR
Maximum Queue (ft)	45
Average Queue (ft)	14
95th Queue (ft)	36
Link Distance (ft)	142
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 22: Platform Driveway Gate

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	62	71
Average Queue (ft)	9	37
95th Queue (ft)	47	83
Link Distance (ft)	158	20
Upstream Blk Time (%)		2
Queuing Penalty (veh)		1
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 26: Park Century School Temporary Loading

Movement	NB	B8
Directions Served	L	T
Maximum Queue (ft)	69	80
Average Queue (ft)	24	34
95th Queue (ft)	59	82
Link Distance (ft)	92	8
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 3015
------------------------------------

Intersection: 4: Robertson Bl & Washington Bl

Movement	EB	EB	EB	EB	B14	B14	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	R	T	T	L	T	T	R	L	L
Maximum Queue (ft)	130	276	278	115	362	367	150	436	388	130	195	210
Average Queue (ft)	107	252	253	101	289	299	126	234	201	99	95	176
95th Queue (ft)	158	274	270	153	435	429	180	375	336	161	189	254
Link Distance (ft)		178	178		274	274		620	620			
Upstream Blk Time (%)		52	50		21	24						
Queuing Penalty (veh)		394	383		157	181						
Storage Bay Dist (ft)	105			90			125			105	185	185
Storage Blk Time (%)	26	49	55	6			16	23	18	7	1	4
Queuing Penalty (veh)	137	75	184	31			50	42	32	22	3	13

Intersection: 4: Robertson Bl & Washington Bl

Movement	NB	NB	NB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	TR
Maximum Queue (ft)	535	496	85	169	195	530	536
Average Queue (ft)	328	288	53	55	163	482	458
95th Queue (ft)	518	467	109	137	251	582	595
Link Distance (ft)	627	627				486	486
Upstream Blk Time (%)	1	0				43	34
Queuing Penalty (veh)	0	0				0	0
Storage Bay Dist (ft)			60	170	170		
Storage Blk Time (%)	32	54	2	0	1	62	
Queuing Penalty (veh)	61	60	8	0	6	120	

Intersection: 5: Landmark St & Washington Bl

Movement	EB	EB	EB	WB	WB	WB	B14	B14	NB	NB
Directions Served	T	T	R	L	T	T	T	T	L	R
Maximum Queue (ft)	734	743	120	224	284	286	13	21	80	86
Average Queue (ft)	485	514	47	74	104	120	1	1	62	55
95th Queue (ft)	863	878	133	157	242	247	17	14	88	91
Link Distance (ft)	708	708			274	274	178	178	15	15
Upstream Blk Time (%)	3	6		0	1	1			55	39
Queuing Penalty (veh)	24	43		0	2	2			56	40
Storage Bay Dist (ft)			95	300						
Storage Blk Time (%)		56	0	0	1					
Queuing Penalty (veh)		36	3	0	0					

Intersection: 6: National BI & Washington BI

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	115	698	693	105	464	486	111	250	100	150	656	423
Average Queue (ft)	112	644	639	72	233	258	28	97	49	136	402	224
95th Queue (ft)	126	787	788	129	490	511	76	194	108	179	798	710
Link Distance (ft)		646	646		708	708		490			671	671
Upstream Blk Time (%)		59	50		0	1					27	16
Queuing Penalty (veh)		0	0		2	3					0	0
Storage Bay Dist (ft)	90			80			105		75	125		
Storage Blk Time (%)	61	28		38	19		0	14	2	57	7	
Queuing Penalty (veh)	374	68		128	11		0	17	4	152	13	

Intersection: 7: Landmark St & Adjacent Use Driveway

Movement	EB	WB
Directions Served	R	LT
Maximum Queue (ft)	55	63
Average Queue (ft)	25	55
95th Queue (ft)	53	81
Link Distance (ft)	56	8
Upstream Blk Time (%)	1	1
Queuing Penalty (veh)	0	1
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Landmark St & Platform Driveway

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	73	81	74
Average Queue (ft)	42	52	25
95th Queue (ft)	75	100	56
Link Distance (ft)	20	14	15
Upstream Blk Time (%)	24	21	8
Queuing Penalty (veh)	17	28	11
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10:

Movement	WB	NB
Directions Served	R	T
Maximum Queue (ft)	60	75
Average Queue (ft)	34	10
95th Queue (ft)	80	46
Link Distance (ft)	1	183
Upstream Blk Time (%)	4	
Queuing Penalty (veh)	1	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 15:

Movement	B25	SB	B17
Directions Served	T	R	T
Maximum Queue (ft)	74	79	3
Average Queue (ft)	65	31	0
95th Queue (ft)	83	61	3
Link Distance (ft)	14	32	142
Upstream Blk Time (%)	0	3	
Queuing Penalty (veh)	0	3	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 20:

Movement	NB
Directions Served	TR
Maximum Queue (ft)	46
Average Queue (ft)	14
95th Queue (ft)	36
Link Distance (ft)	142
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

---

Intersection: 22: Platform Driveway Gate

---

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	56	71
Average Queue (ft)	8	38
95th Queue (ft)	44	84
Link Distance (ft)	158	20
Upstream Blk Time (%)		2
Queuing Penalty (veh)		1
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

---

Intersection: 26: Park Century School Temporary Loading

---

Movement	NB	B8
Directions Served	L	T
Maximum Queue (ft)	67	81
Average Queue (ft)	24	34
95th Queue (ft)	58	83
Link Distance (ft)	92	8
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

---

Network Summary

---

Network wide Queuing Penalty: 3000

---

**FUTURE + PROJECT**

Intersection: 4: Robertson Bl & Washington Bl

Movement	EB	EB	EB	EB	B14	B14	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	R	T	T	L	T	T	R	L	L
Maximum Queue (ft)	130	264	267	115	227	268	150	669	672	130	191	210
Average Queue (ft)	92	174	184	77	47	52	123	640	641	112	98	177
95th Queue (ft)	157	295	303	150	197	209	186	665	659	165	193	248
Link Distance (ft)		178	178		274	274		620	620			
Upstream Blk Time (%)		20	18		1	2		55	53			
Queuing Penalty (veh)		110	97		7	9		0	0			
Storage Bay Dist (ft)	105			90			125			105	185	185
Storage Blk Time (%)	21	22	30	1			15	53	53	16	1	4
Queuing Penalty (veh)	73	31	69	5			91	134	167	100	2	14

Intersection: 4: Robertson Bl & Washington Bl

Movement	NB	NB	NB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	TR
Maximum Queue (ft)	569	495	85	108	195	508	497
Average Queue (ft)	330	287	29	13	117	342	302
95th Queue (ft)	524	467	87	63	230	515	461
Link Distance (ft)	627	627				486	486
Upstream Blk Time (%)	2	1				5	3
Queuing Penalty (veh)	0	0				0	0
Storage Bay Dist (ft)			60	170	170		
Storage Blk Time (%)	28	51	1	0	0	41	
Queuing Penalty (veh)	62	26	2	0	1	47	

Intersection: 5: Landmark St & Washington Bl

Movement	EB	EB	EB	WB	WB	WB	B14	B14	B14	NB	NB
Directions Served	T	T	R	L	T	T	T	T		L	R
Maximum Queue (ft)	241	274	120	255	348	360	154	175	63	80	76
Average Queue (ft)	87	112	45	82	166	191	21	25	3	48	36
95th Queue (ft)	195	229	113	209	351	368	126	137	43	78	71
Link Distance (ft)	708	708			274	274	178	178	178	15	15
Upstream Blk Time (%)				0	8	10	2	3	0	46	13
Queuing Penalty (veh)				0	61	81	11	15	1	40	12
Storage Bay Dist (ft)			95	300							
Storage Blk Time (%)		8	0	0	8						
Queuing Penalty (veh)		11	1	1	9						

Intersection: 6: National BI & Washington BI

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	115	696	684	105	683	688	129	496	100	150	629	532
Average Queue (ft)	112	628	600	68	417	442	45	307	60	132	336	161
95th Queue (ft)	121	788	824	132	704	709	122	538	128	184	712	534
Link Distance (ft)		646	646		708	708		490			671	671
Upstream Blk Time (%)		73	33		4	5		14			12	6
Queuing Penalty (veh)		0	0		32	36		0			0	0
Storage Bay Dist (ft)	90			80			105		75	125		
Storage Blk Time (%)	92	10		30	31		0	53	1	50	7	
Queuing Penalty (veh)	411	17		179	24		0	65	5	137	11	

Intersection: 8: Platform Driveway Gate

Movement	WB
Directions Served	T
Maximum Queue (ft)	63
Average Queue (ft)	29
95th Queue (ft)	76
Link Distance (ft)	9
Upstream Blk Time (%)	1
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: Landmark St & Platform Driveway

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	37	79	68
Average Queue (ft)	12	57	18
95th Queue (ft)	36	81	51
Link Distance (ft)	9	28	15
Upstream Blk Time (%)	3	7	1
Queuing Penalty (veh)	0	11	3
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: Landmark St & Park Century School

Movement	EB	NB	SB	SB
Directions Served	LR	LT	T	R
Maximum Queue (ft)	37	10	21	60
Average Queue (ft)	30	0	1	26
95th Queue (ft)	43	8	10	52
Link Distance (ft)	4	534	28	28
Upstream Blk Time (%)	5		0	4
Queuing Penalty (veh)	6		0	5
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15:

Movement	EB	WB
Directions Served	T	R
Maximum Queue (ft)	4	46
Average Queue (ft)	0	42
95th Queue (ft)	4	61
Link Distance (ft)	8	4
Upstream Blk Time (%)	0	1
Queuing Penalty (veh)	0	1
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 16: Park Century School Loading

Movement	EB	EB
Directions Served	T	R
Maximum Queue (ft)	105	39
Average Queue (ft)	71	3
95th Queue (ft)	120	23
Link Distance (ft)	51	
Upstream Blk Time (%)	46	0
Queuing Penalty (veh)	49	0
Storage Bay Dist (ft)		25
Storage Blk Time (%)	70	0
Queuing Penalty (veh)	2	0

Intersection: 20: Park Century School Loading

Movement	WB	WB
Directions Served	T	R
Maximum Queue (ft)	42	34
Average Queue (ft)	30	11
95th Queue (ft)	46	36
Link Distance (ft)	36	
Upstream Blk Time (%)	6	1
Queuing Penalty (veh)	7	0
Storage Bay Dist (ft)		25
Storage Blk Time (%)	6	1
Queuing Penalty (veh)	1	1

Intersection: 22: Park Century School Loading

Movement	SB	SB	B17
Directions Served	L	R	T
Maximum Queue (ft)	66	21	31
Average Queue (ft)	34	5	2
95th Queue (ft)	57	20	22
Link Distance (ft)	21		39
Upstream Blk Time (%)	13	0	1
Queuing Penalty (veh)	14	0	1
Storage Bay Dist (ft)		25	
Storage Blk Time (%)	13	0	
Queuing Penalty (veh)	1	1	

Network Summary

Network wide Queuing Penalty: 2313

Intersection: 4: Robertson Bl & Washington Bl

Movement	EB	EB	EB	EB	B14	B14	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	R	T	T	L	T	T	R	L	L
Maximum Queue (ft)	130	278	278	115	370	368	150	458	417	130	189	210
Average Queue (ft)	113	254	254	104	334	335	127	252	223	101	85	177
95th Queue (ft)	156	265	266	148	389	383	179	389	358	159	175	256
Link Distance (ft)		178	178		274	274		620	620			
Upstream Blk Time (%)		60	58		33	37						
Queuing Penalty (veh)		457	444		256	280						
Storage Bay Dist (ft)	105			90			125			105	185	185
Storage Blk Time (%)	29	56	60	6			16	25	21	7	0	2
Queuing Penalty (veh)	149	87	203	33			49	46	36	21	0	8

Intersection: 4:

Movement	NB	NB	NB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	TR
Maximum Queue (ft)	523	501	85	151	195	533	524
Average Queue (ft)	326	286	58	46	150	483	460
95th Queue (ft)	508	464	112	114	253	579	591
Link Distance (ft)	627	627				486	486
Upstream Blk Time (%)	1	0				44	36
Queuing Penalty (veh)	0	0				0	0
Storage Bay Dist (ft)			60	170	170		
Storage Blk Time (%)	30	53	3	0	0	62	
Queuing Penalty (veh)	59	60	12	0	1	120	

Intersection: 5:Landmark St & Washington Bl

Movement	EB	EB	EB	WB	WB	WB	B14	B14	NB	NB
Directions Served	T	T	R	L	T	T	T	T	L	R
Maximum Queue (ft)	749	756	120	246	296	283	28	19	95	90
Average Queue (ft)	700	717	62	105	118	126	2	1	62	57
95th Queue (ft)	820	823	153	212	265	260	24	21	94	90
Link Distance (ft)	708	708			274	274	178	178	15	15
Upstream Blk Time (%)	17	28		0	1	0		0	62	58
Queuing Penalty (veh)	129	214		0	5	1		0	68	63
Storage Bay Dist (ft)			95	300						
Storage Blk Time (%)		67	0	0	1					
Queuing Penalty (veh)		51	2	0	1					

Intersection: 6: National BI & Washington BI

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	115	698	698	105	427	453	106	244	100	150	712	701
Average Queue (ft)	107	654	653	64	191	221	24	96	52	147	655	563
95th Queue (ft)	139	759	758	124	381	406	71	191	110	163	842	976
Link Distance (ft)		646	646		708	708		490			671	671
Upstream Blk Time (%)		54	59		0	0					85	49
Queuing Penalty (veh)		0	0		0	0					0	0
Storage Bay Dist (ft)	90			80			105		75	125		
Storage Blk Time (%)	39	43		20	15		0	12	3	89	6	
Queuing Penalty (veh)	239	104		70	9		0	15	6	237	13	

Intersection: 8: Platform Driveway Gate

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	93	70
Average Queue (ft)	13	38
95th Queue (ft)	59	84
Link Distance (ft)	158	9
Upstream Blk Time (%)	0	1
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Landmark St & Platform Driveway

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	62	102	74
Average Queue (ft)	36	72	25
95th Queue (ft)	68	107	58
Link Distance (ft)	9	28	15
Upstream Blk Time (%)	37	45	7
Queuing Penalty (veh)	20	74	10
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: Landmark St & Park Century School

Movement	EB	NB	SB	SB
Directions Served	LR	LT	T	R
Maximum Queue (ft)	53	144	50	51
Average Queue (ft)	29	25	4	15
95th Queue (ft)	54	97	26	36
Link Distance (ft)	4	534	28	28
Upstream Blk Time (%)	14		2	2
Queuing Penalty (veh)	9		1	1
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15:

Movement	EB	WB
Directions Served	T	R
Maximum Queue (ft)	62	46
Average Queue (ft)	9	33
95th Queue (ft)	44	65
Link Distance (ft)	8	4
Upstream Blk Time (%)	2	0
Queuing Penalty (veh)	1	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 16: Park Century School Loading

Movement	EB	NB
Directions Served	T	R
Maximum Queue (ft)	104	22
Average Queue (ft)	48	2
95th Queue (ft)	94	12
Link Distance (ft)	51	109
Upstream Blk Time (%)	20	
Queuing Penalty (veh)	12	
Storage Bay Dist (ft)		
Storage Blk Time (%)	48	
Queuing Penalty (veh)	0	

---

Intersection: 20: Park Century School Loading

---

Movement	WB	SB
Directions Served	T	R
Maximum Queue (ft)	34	26
Average Queue (ft)	24	3
95th Queue (ft)	47	15
Link Distance (ft)	36	52
Upstream Blk Time (%)	3	
Queuing Penalty (veh)	1	
Storage Bay Dist (ft)		
Storage Blk Time (%)	3	
Queuing Penalty (veh)	0	

---

Intersection: 22: Park Century School Loading

---

Movement	EB	SB	B17
Directions Served	T	L	T
Maximum Queue (ft)	30	53	57
Average Queue (ft)	3	25	6
95th Queue (ft)	18	49	35
Link Distance (ft)	87	21	39
Upstream Blk Time (%)		4	0
Queuing Penalty (veh)		2	0
Storage Bay Dist (ft)			
Storage Blk Time (%)		4	
Queuing Penalty (veh)		0	

---

Network Summary

---

Network wide Queuing Penalty: 3683

---

Intersection: 4: Robertson Bl & Washington Bl

Movement	EB	EB	EB	EB	B14	B14	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	R	T	T	L	T	T	R	L	L
Maximum Queue (ft)	130	272	278	115	338	342	150	417	384	130	197	210
Average Queue (ft)	105	216	219	88	114	130	115	233	202	93	130	192
95th Queue (ft)	161	322	322	153	320	336	184	372	330	161	214	251
Link Distance (ft)		178	178		274	274		620	620			
Upstream Blk Time (%)		33	29		5	6						
Queuing Penalty (veh)		268	237		41	48						
Storage Bay Dist (ft)	105			90			125			105	185	185
Storage Blk Time (%)	25	32	40	2			11	26	19	6	3	13
Queuing Penalty (veh)	138	56	129	13			37	44	32	18	12	49

Intersection: 4: Robertson Bl & Washington Bl

Movement	NB	NB	NB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	TR
Maximum Queue (ft)	676	670	85	153	195	537	534
Average Queue (ft)	581	561	66	49	166	506	505
95th Queue (ft)	769	773	114	114	254	522	522
Link Distance (ft)	627	627				486	486
Upstream Blk Time (%)	34	29				64	62
Queuing Penalty (veh)	0	0				0	0
Storage Bay Dist (ft)			60	170	170		
Storage Blk Time (%)	54	65	6	0	0	67	
Queuing Penalty (veh)	133	120	24	0	1	137	

Intersection: 5: Landmark St & Washington Bl

Movement	EB	EB	EB	WB	WB	WB	B14	B14	B14	NB	NB
Directions Served	T	T	R	L	T	T	T	T		L	R
Maximum Queue (ft)	406	444	113	227	336	344	164	150	39	91	97
Average Queue (ft)	165	187	26	88	173	187	32	32	1	60	69
95th Queue (ft)	430	453	94	237	370	371	152	151	28	92	99
Link Distance (ft)	708	708			274	274	178	178	178	15	15
Upstream Blk Time (%)	0	1		0	14	17	3	3	0	48	34
Queuing Penalty (veh)	2	4		0	72	87	9	9	0	49	35
Storage Bay Dist (ft)			95	300							
Storage Blk Time (%)		26	0	0	14						
Queuing Penalty (veh)		15	1	1	10						

Intersection: 6: National BI & Washington BI

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	115	698	693	105	712	721	124	453	100	150	412	97
Average Queue (ft)	113	667	647	86	444	461	39	212	69	107	146	27
95th Queue (ft)	121	685	799	138	840	844	104	396	130	172	322	72
Link Distance (ft)		646	646		708	708		490			671	671
Upstream Blk Time (%)		85	40		7	8		1				
Queuing Penalty (veh)		0	0		36	42		0				
Storage Bay Dist (ft)	90			80			105		75	125		
Storage Blk Time (%)	88	10		62	21		0	37	5	20	5	
Queuing Penalty (veh)	559	33		235	16		1	60	16	48	7	

Intersection: 8: Platform Driveway Gate

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	109	71
Average Queue (ft)	16	55
95th Queue (ft)	74	86
Link Distance (ft)	158	9
Upstream Blk Time (%)	0	3
Queuing Penalty (veh)	0	3
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Landmark St & Platform Driveway

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	62	91	71
Average Queue (ft)	44	52	31
95th Queue (ft)	69	91	58
Link Distance (ft)	9	28	15
Upstream Blk Time (%)	24	15	6
Queuing Penalty (veh)	28	13	8
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: Landmark St & Park Century School

Movement	EB	NB	SB	SB
Directions Served	LR	LT	T	R
Maximum Queue (ft)	44	25	15	33
Average Queue (ft)	26	2	1	9
95th Queue (ft)	48	18	7	24
Link Distance (ft)	4	534	28	28
Upstream Blk Time (%)	3		0	1
Queuing Penalty (veh)	2		0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15:

Movement	EB	WB
Directions Served	T	R
Maximum Queue (ft)	58	46
Average Queue (ft)	18	24
95th Queue (ft)	61	60
Link Distance (ft)	8	4
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 16: Park Century School Loading

Movement	EB	NB
Directions Served	T	R
Maximum Queue (ft)	94	24
Average Queue (ft)	39	6
95th Queue (ft)	79	20
Link Distance (ft)	51	109
Upstream Blk Time (%)	12	
Queuing Penalty (veh)	5	
Storage Bay Dist (ft)		
Storage Blk Time (%)	41	
Queuing Penalty (veh)	0	

Intersection: 20: Park Century School Loading

Movement	WB	SB
Directions Served	T	R
Maximum Queue (ft)	34	31
Average Queue (ft)	17	7
95th Queue (ft)	43	26
Link Distance (ft)	36	52
Upstream Blk Time (%)	1	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)	1	
Queuing Penalty (veh)	0	

Intersection: 22: Park Century School Loading

Movement	EB	SB	B17
Directions Served	T	L	T
Maximum Queue (ft)	33	42	64
Average Queue (ft)	10	21	16
95th Queue (ft)	34	45	58
Link Distance (ft)	87	21	39
Upstream Blk Time (%)		2	0
Queuing Penalty (veh)		1	0
Storage Bay Dist (ft)			
Storage Blk Time (%)		2	
Queuing Penalty (veh)		0	

Network Summary

Network wide Queuing Penalty: 2942

# Study Network

