

DRAFT Transportation and Circulation Assessment Slauson Marketplace City of Huntington Park

Prepared for:

Gryphon Capital, LLC

500 S. Sepulveda Boulevard, Suite 304
Manhattan Beach, California 90266

Contact: Chris Shane

Prepared by:

DUDEK

605 Third Street
Encinitas, California 92024

Contact: Dennis Pascua, Transportation Services Manager

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1 Introduction

1.1 Purpose and Scope

The purpose of this assessment is to analyze the vehicle miles traveled (VMT) and site circulation and access effects associated with the proposed Slauson Marketplace project (proposed project) located in the City of Huntington Park (City). The project site is located on an approximately 5.5 acre site and proposes to develop a 55,891 square foot Target store and two fast food with drive through restaurants at 4,950 square feet and 3,100 square feet, at the northwestern corner of the intersections of Slauson Avenue/Bickett Street in the northern part of the City. The objectives of this assessment are:

- Document existing transportation setting in the study area;
- Estimate trip generation, distribution, and assignment characteristics of the project;
- Provide a Vehicle Miles Traveled (VMT) analysis per Senate Bill (SB) 743 requirements under California Environmental Quality Act (CEQA);
- Analyze the vehicular queuing effects and truck circulation that would occur under project conditions; and,
- If required, identify improvement and traffic control measures for Bickett Street/Slauson Avenue intersection and/or project driveways.

The scope of this assessment has been reviewed and approved by the City; and, has been prepared per the City of Huntington Park's requirements, and is consistent with the current requirements of all applicable City and State regulations, including SB 743 and CEQA requirements.

1.2 Project Description, Location and Study Area

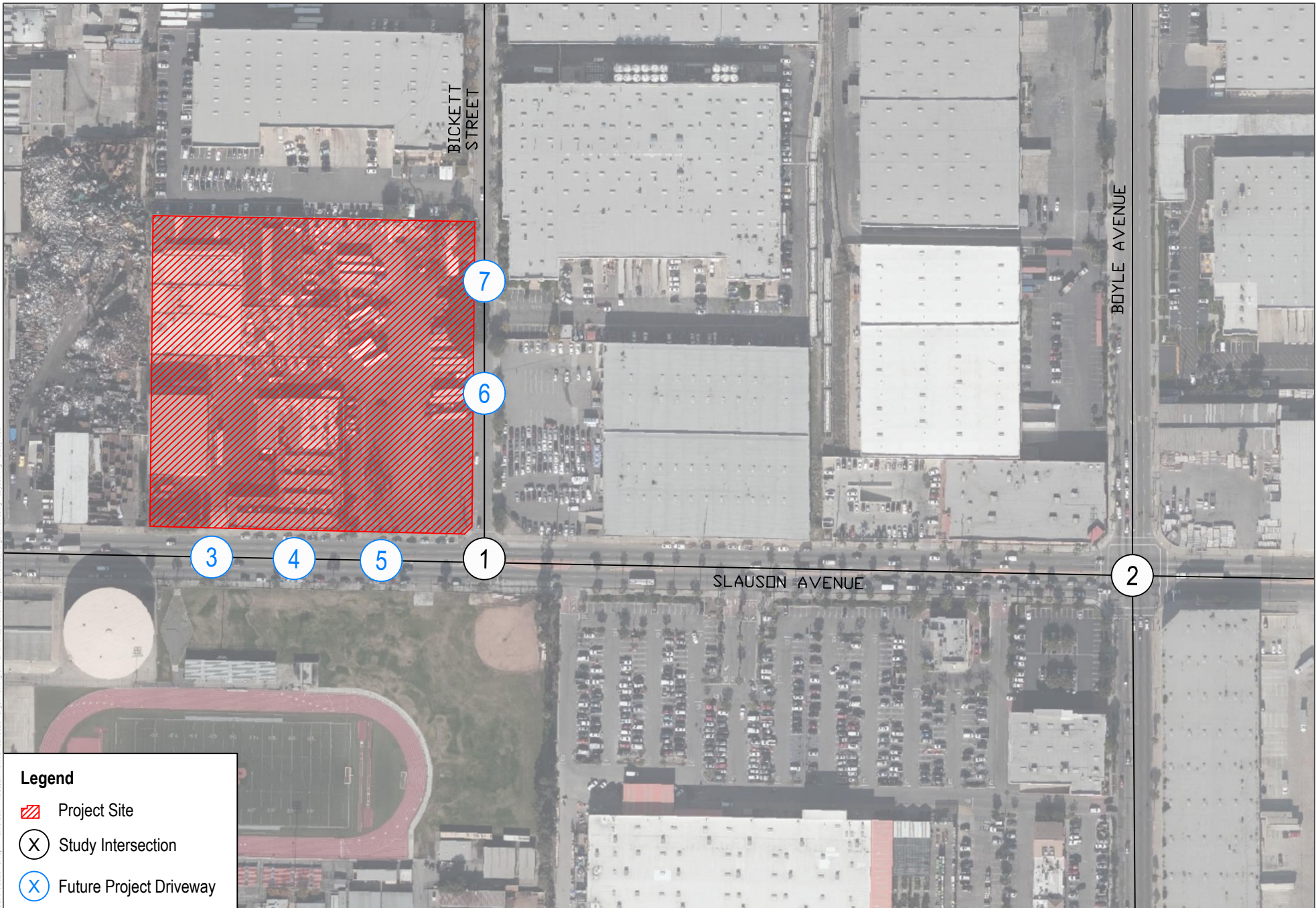
Figure 1 shows the project location and site, study area, and regional location of the project site. The proposed project would convert an existing industrial site to a local-serving retail development. The Slauson Marketplace proposes to construct a 55,891 square foot Target store and two fast food with drive through restaurants of approximately 4,950 square feet and 3,100 square feet. Figure 2 illustrates the project's site plan and location of the project access driveways.

The project site is located on the northwestern corner of Slauson Avenue and Bickett Street in the northern part of the City. It is located west of Interstate 710 (I-710). Local access to the proposed project would be primarily via Slauson Avenue, and at the signalized intersection of Bickett Street/Slauson Avenue. Additionally, the proposed project would have five driveways including: one outbound-only drive-through driveway, one full access unsignalized driveway, and one right-turn in/out only driveway along Slauson Avenue; and, two full access unsignalized driveways along Bickett Street. As illustrated in Figure 1, the study area is comprised of the following intersection and project driveways:

Intersections

1. Bickett Street/Slauson Avenue
2. Boyle Avenue/Slauson Avenue
3. Restaurant Drive-Through Exit/Slauson Avenue

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Legend

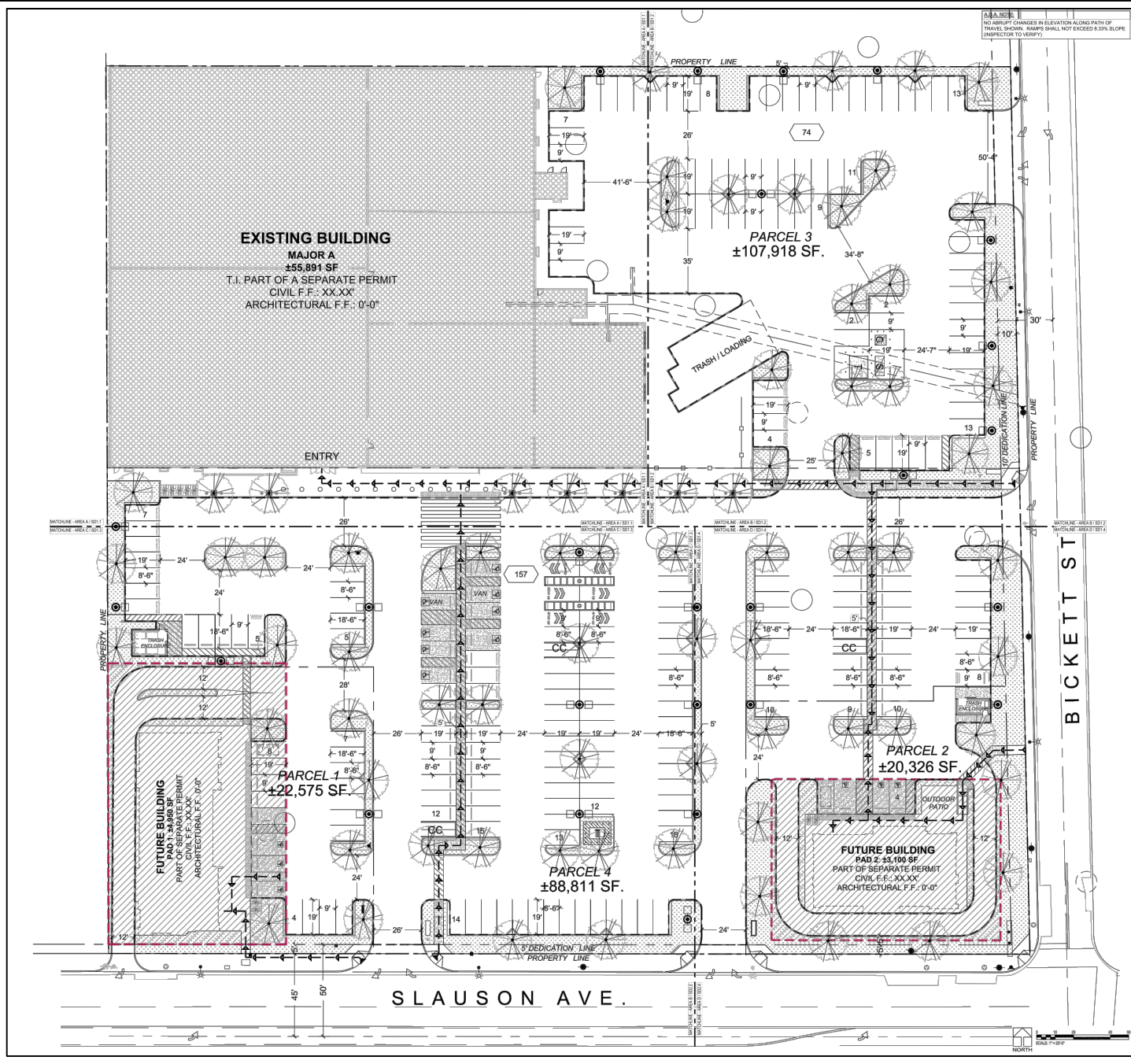
- Project Site
- X Study Intersection
- X Future Project Driveway

SOURCE: Bing 2020



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SOURCE: DLR Group 2020



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FIGURE 2

Site Plan

Slauson Marketplace Project

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4. West Driveway/Slauson Avenue
5. East Driveway/Slauson Avenue
6. Bickett Street/South Driveway
7. Bickett Street/North Driveway

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1.3 Analysis Methodology

1.3.1 Vehicle Miles Traveled (VMT) Analysis for CEQA

The Governor’s Office of Planning and Research (OPR) approved the addition of new Section 15064.3, “Determining the Significance of Transportation Impacts” to the State’s CEQA Guidelines, compliance with which is required beginning July 1, 2020. The Updated CEQA Guidelines state that “generally, vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts” and define VMT as “the amount and distance of automobile travel attributable to a project.” It should be noted that “automobile” refers to on-road passenger vehicles, specifically cars and light trucks. OPR has clarified in the Technical Advisory and recent informational presentations that heavy-duty truck VMT is not required to be included in the estimation of a project’s VMT. Other relevant considerations may include the effects of the project on transit and non-motorized traveled. Under CEQA, transportation impacts are required to be determined based on VMT, and level of service (LOS) is no longer an impact metric under CEQA.

The new Section 15064.3(b), “Criteria for Analyzing Transportation Impacts,” states “If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project’s vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis may be appropriate.”

To aid in this transition, OPR released a Technical Advisory on Evaluating Transportation Impacts in CEQA (December of 2018) (Technical Advisory). The technical Advisory and the guidance provided by the State has also been used in the VMT analysis of the proposed project. The details of applicable VMT screening and analysis has been provided in Chapter 4 of this assessment.

1.3.2 Level of Service for Project Circulation and Access Analysis

Level of service is commonly used as a qualitative description of intersection operations and is based on the design capacity of the intersection configuration, compared to the volume of traffic using the facility. For purposes of this analysis, LOS is presented as a metric to analyze traffic operations on the surrounding street network.

An LOS and queuing analysis was performed for the project driveways and the Bickett Street/Slauson Avenue intersection in order to assess the general functioning of the project driveway and nearest signalized intersection in relation to the proposed project. The Roadway Performance Standards and LOS policy as described in the *General Plan Mobility & Circulation Element of the City of Huntington Park (2017)* identify LOS D as the target LOS standard, and LOS E as a threshold standard. The City recognizes that not all intersections within Huntington Park can meet the target LOS D.

The *Highway Capacity Manual, 6th Edition* (HCM 6) methodology was used to assess level of service and queuing for intersections and driveways within the study area. The HCM intersection analysis methodology was used to analyze the operation of signalized and unsignalized study intersections. The HCM analysis methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding control delay experienced per vehicle for unsignalized intersections. The Synchro 10 LOS software was used to determine intersection LOS. Synchro is consistent with the HCM methodology. Table 1 shows the LOS values by delay ranges for unsignalized and signalized intersections under the HCM methodology.

Table 1. Levels of Service for Intersections using HCM Methodology

Level of Service	Unsignalized Intersections Control Delay (in seconds per vehicle)	Signalized Intersections Control Delay (in seconds per vehicle)
A	< 10.0	< 10.0
B	> 10.0 to < 15.0	> 10.0 to < 20.0
C	> 15.0 to < 25.0	> 20.0 to < 35.0
D	> 25.0 to < 35.0	> 35.0 to < 55.0
E	> 35.0 to < 50.0	> 55.0 to < 80.0
F	> 50.0	> 80.0

Source: HCM 6, 2016.

2 Existing Conditions

This section describes existing conditions within the study area. Characteristics are provided for the existing roadway system, bicycle, pedestrian and transit network.

2.1 Roadway System

Figure 3 shows the existing transportation setting in the study area. Regional access to the proposed project would be via Interstate 710 (I-710) and Interstate 110 (I-110). I-710 has interchanges at Atlantic Boulevard and Florence Avenue. I-110 is located towards the west and has interchanges at Slauson Avenue and Florence Avenue. Local access to the project would be via Slauson Avenue and Bickett Street.

Slauson Avenue is classified as a Major Arterial in the Huntington Park General Plan 2030. It is generally constructed with four-lanes (two lanes in each direction) and through the northerly portion of the City. Slauson Avenue has a two-way left-turn lane (TWLTL) serving as a median, with left turn pockets at major intersections. On-street parking is permitted on both sides of the street. The posted speed limit along Slauson Avenue is 35 miles per hour (MPH); and, in the vicinity of the project, the speed limit is 25 MPH when students from Huntington Park High School are present. Slauson Avenue is also a designated truck route within the City.

Bickett Street is a north-south two-lane roadway which functions as a local street. Bickett Street provides access to individual parcels along the roadway segment which extends between Slauson Avenue and 54th Street. The roadway segment is built constructed with sidewalk, curb and gutter and there is no posted speed limit. Parking is not permitted on either side of Bickett Street.

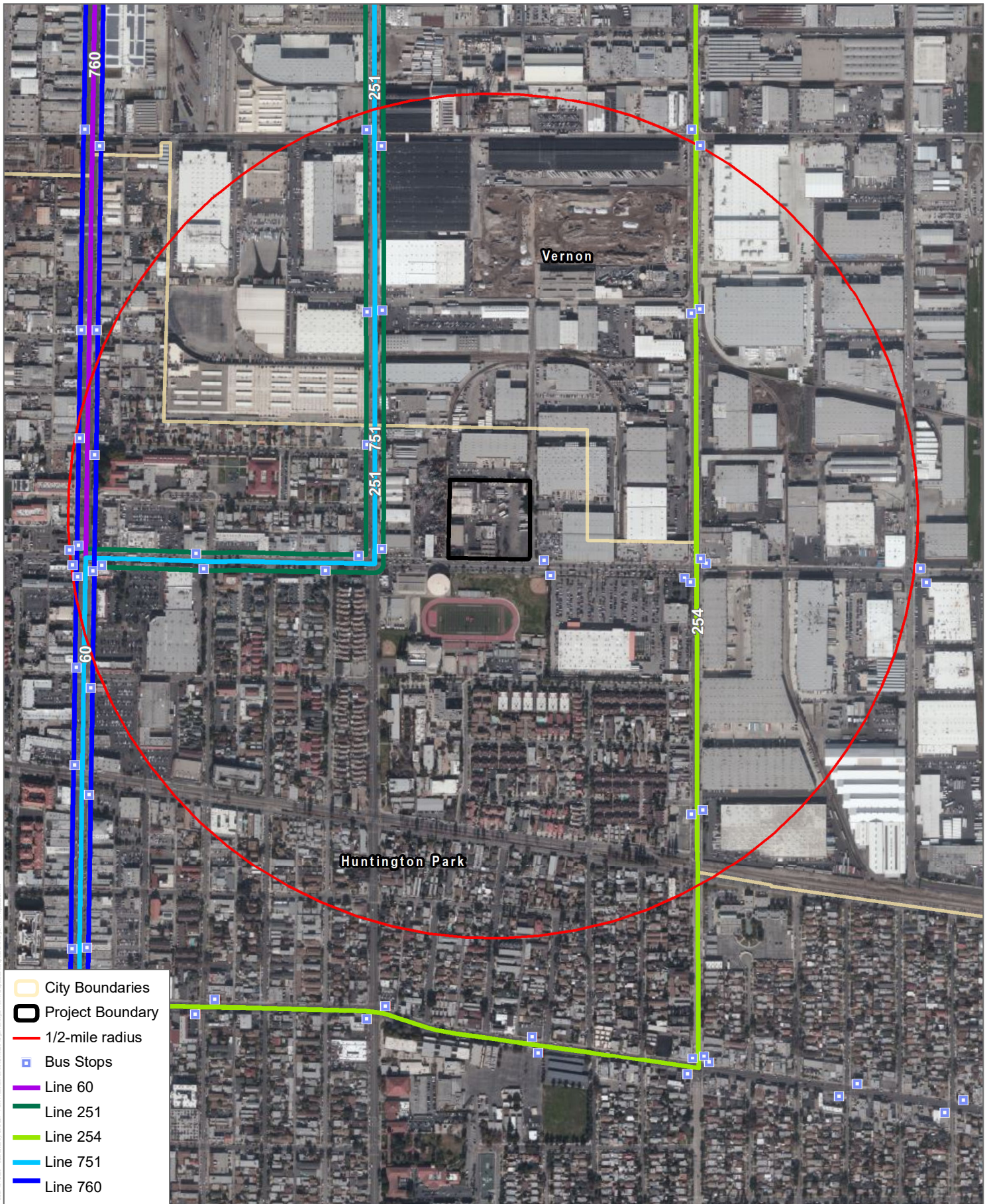
2.2 Transit, Bicycle and Pedestrian Facilities

Existing transit facilities are shown on Figure 3. Existing bicycle and pedestrian volumes counts obtained at the study area intersections are provided in Appendix A.

2.2.1 Transit Facilities

The Los Angeles County Metropolitan Transportation Authority (Metro) provides public transit service within the City along all major streets including Slauson Avenue. Metro buses passing through Huntington Park include Routes 60, 102, 108/358, 110, 111-311, 251, 254, 611, 612, 751, and 760. These routes pass through all major arterial roadways in the City and provide connections to most communities and major activity centers throughout the region. Bus route 108/358 serves the area with stop along Slauson Avenue across the proposed project, just east of the Bickett Street/Slauson Avenue intersection. Bus stops for route 251 and 254 are located at the intersections of Soto Street/Slauson Avenue and Boyle Avenue/Slauson Avenue, respectively. Bus stop for route 60, 751 and 760 is located at the intersection of Slauson Avenue and Pacific Boulevard. All the above-mentioned bus stop locations are within ½ mile of the proposed project.

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City of Vernon 2020; City of Huntington Park 2020; Bing Maps

Figure 3
Existing Transit Facilities
Slauson Marketplace Project

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Table 2. Transit Frequency

Route	Weekdays (frequency in minutes)		
	Peak	Day	Evening
108/358 – operates between Marina Del Ray and Pico Rivera	8-15	15-17	20-60
251/751 – Metro Local Line operates between Cypress Park and Lynwood via Huntington Park	15-20	20	40-60
254 – operates between Watts and East Los Angeles via Huntington Park	30-60	60	-
760 – Metro Rapid operates between Lynwood and Los Angeles via Huntington Park	8-20	25	30
60 – Metro Local Line operates between Compton and Downtown La via Huntington Park	6-7	12-15	20-60

Source: LA Metro System Map

Section 4.1 Vehicle Miles Traveled Screening provides further details which qualify the proposed project site to be within an existing high-quality transit corridor.

Additionally, the Metro Blue Line is a commuter rail service serving downtown Los Angeles and areas to the south down to Long Beach with the closest station to the project located at Slauson Avenue approximately 1.5 miles from the project.

2.2.2 Pedestrian Facilities

The proposed project and its immediate vicinity serve many active transportation users. There are sidewalks along Slauson Avenue and Bickett Street in the vicinity of the project. The Bickett Street/Slauson Avenue intersection has pedestrian phasing and crosswalks along the north leg and east leg of the intersection. The Boyle Street/Slauson Avenue intersection has pedestrian crosswalks along all the approaches of the intersection.

2.2.3 Bicycle Facilities

Currently there are no bike paths, lanes, or routes in the proximity of the project site. City of Huntington Park Bicycle Master Plan proposes approximately 4.0 miles of Class-I Bike Paths, 3.8 miles of Class-II Bike Lanes and 15 miles of Class III- Bike Routes within the City of Huntington Park. The closest bike route to the project are proposed along Pacific Boulevard, Soto Street, Belgrave Avenue and 58th Street.

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3 Project Trip Generation

This section documents the trip generation, distribution, and assignment of project traffic used in the LOS and queuing analyses of the study area.

3.1 Trip Generation

Trip generation for the proposed project is based on daily and AM and PM peak hour trip generation rates obtained from the Institute of Transportation Engineers (ITE) *Trip Generation Handbook, 10th Edition* (2017). As shown in Table 3, using the applicable trip rates for proposed retail and restaurant uses, the proposed project would generate 6,625 daily trips, 427 AM peak hour trips (223 inbound and 204 outbound), and 505 trips during the PM peak hour (255 inbound and 250 outbound). Additionally, trip reductions for internal trip capture and pass-by trips were applied to the proposed project.

Trip reductions for internal trip capture pursuant to the National Cooperative Highway Research Program (NCHRP) 684 Report and Internal *Trip Capture Estimate Tool* was applied to the proposed project. Internal trip capture is the potential for walking or vehicle trips to take place between the retail and restaurant uses proposed on the project site. These would be trips generated by the project land uses that do not result in additional traffic through study intersections.

Trip reductions for pass-by trips pursuant to the *ITE Trip Generation Handbook, 3rd Edition* were applied to proposed project. Some of the trips generated by retail and restaurant uses within the proposed project would be pass-by trips, or trips whose primary destination are not those uses. These would include trips such as a work-to-home trip that stops at a restaurant or retail on the way home from work. These trips would not be new trips generated by the project; rather, they are trips that are already on the roadway network that would make a stop at the project site.

As shown in the Table 3, using pass by and internal trip capture, the proposed project would generate net new 4,356 daily trips, 233 AM peak hour trips (123 inbound and 110 outbound), and 130 trips during the PM peak hour (65 inbound and 65 outbound).

In addition, ITE's Trip Generation, 10th Edition contains weighted average truck trip generation rates for free-standing discount superstore uses (ITE Land Use Code 813) based on an average gross floor area of 206,000 SF. When the rates are adjusted for the proposed Target's 55,891 SF, approximately 7 trucks would be generated per day (14 truck trips), 1 truck would be generated during the AM peak hour (2 truck trips), and zero trucks would be generated during the PM peak hour (zero truck trips).

The existing uses on the project site currently generate 158 daily trips, and 15 trips during the AM peak hour (12 inbound and 3 outbound) and 17 trips during the PM peak hour (4 inbound and 13 outbound). It should be noted that no credit was assumed for existing uses in the estimating the trip generation of the proposed project or analyzing study area intersections and driveways.

Table 3. Project Trip Generation

Vehicle Type	ITE Code	Size/ Unit	Daily Trips	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates¹									
Free-Standing Discount Superstore	813	per TSF	50.70	1.04	0.81	1.85	2.12	2.21	4.33
Fast Food with Drive Through	934	per TSF	470.95	20.50	19.69	40.19	16.99	15.68	32.67
Warehousing	150	per TSF	1.74	0.13	0.04	0.17	0.05	0.14	0.19
Trip Generation (Proposed Uses)									
Department Store (Target)	55.891 TSF		2,834	58	45	103	119	123	242
Fast Food 1	4.950 TSF		2,331	101	97	199	84	78	162
Fast Food 2	3.100 TSF		1,460	64	61	125	53	49	101
Total (Proposed use)			6,625	223	204	427	255	250	505
Internal trip capture ²			0	-11	-10	-21	-89	-87	-177
Retail pass-by trips ³			-411	-8	-7	-15	-34	-36	-70
Fast Food pass-by trips ⁴			-1,858	-81	-78	-159	-67	-62	-129
Trip Generation (w/ internal trip capture)			6,625	212	194	406	166	162	328
NET Trip Generation (w/ pass-by and internal trip capture)			4,356	123	110	233	65	65	130
Trip Generation (Existing Uses)									
5731 Bickett Street - Warehouse	55.891		97	7	2	9	3	8	11
2901 Slauson Avenue - Warehouse	10.766		19	2	0	2	0	2	2
2909 Slauson Avenue - Warehouse	24.207		42	3	1	4	1	3	4
Total (Existing use)			158	12	3	15	4	13	17

Notes:

- ¹ Trip rates from the Institute of Transportation Engineers, Trip Generation, 10th Edition, 2017
- ² Consistent with the ITE Trip Generation Handbook, project trip generation was adjusted to account for internal capture between the retail and restaurant components using NCHRP methodology.
- ³ Pass-by trip rates derived from the average of pass-by trip percentages provided for Free-Standing Discount Superstore, from the ITE Trip Generation Handbook, 3rd Edition - Table E.3, Pass-by and Non-Pass-By Weekday, PM Peak Period (29%). AM and Daily pass-by reduction assumed to be half of the PM period.
- ⁴ Pass-by trip rates derived from the average of pass-by trip percentages provided for all fast-Food Restaurant with Drive-Through Window (934), from the ITE Trip Generation Handbook, 3rd Edition - Table E.31, Pass-by and Non-Pass-By Weekday, AM Peak Period (49%) and E.32 Pass-By and Non-Pass-By Trips Weekday, PM Peak Period (50%) Trips (Weekday, PM Peak Hour), ITE 934 - Fast-Food Restaurant with Drive-Through Window

3.2 Construction Trip Generation

The construction trip generation of the project was estimated using the construction phasing and schedule included in the Air Quality and Health Risk Assessment Report of the project, prepared by Infrastructure Engineers. The project construction would include demolition, site preparation, grading, building construction, paving and architectural coating phases. Grading and building construction phases of the construction would overlap and generate the peak number of workers and vendor truck trips. Table 4 provides a summary of worker and vendor trips associated with the peak phases of construction.

Table 4. Construction Trip Generation

Phase/Vehicle Type	Daily Quantity		Daily Trips	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
<i>Trip Generation</i>									
Grading									
Workers ¹	5	workers	10	5	0	5	0	5	5
Vendor Trucks ²	0	trucks	0	0	0	0	0	0	0
<i>Subtotal Grading</i>			10	5	0	5	0	5	5
Building Construction									
Workers ¹	25	workers	50	25	0	25	0	25	25
Vendor Trucks ²	10	trucks	20	3	0	3	0	10	10
<i>Subtotal Building Construction</i>			70	28	0	28	0	35	35
<i>Peak Construction</i>			80	33	0	33	0	40	40
<i>Trip Generation with PCE</i>									
Grading									
Workers (1.0 PCE)	5	workers	10	5	0	5	0	5	5
Vendor Trucks (2.0 PCE)	0	trucks	0	0	0	0	0	0	0
<i>Subtotal Grading (w/PCE)</i>			10	5	0	5	0	5	5
Building Construction									
Workers (1.0 PCE)	25	workers	50	25	0	25	0	25	25
Vendor Trucks (2.0 PCE)	10	trucks	40	6	0	6	0	20	20
<i>Subtotal Building Construction (w/ PCE)</i>			90	31	0	31	0	45	45
<i>Peak Construction (PCE)</i>			100	36	0	36	0	45	45

Source: Air Quality and Health Risk Assessment Report, Infrastructure Engineers

Notes: PCE = Passenger Car Equivalent

¹The analysis conservatively assumes that all the construction workers will arrive during the AM peak hour and leave during the PM peak hour and each worker would generate two trips per day;

² Vendor trucks are assumed to be distributed across the work shift during the AM and the afternoon, however all trucks would depart during the PM peak hour. Each truck would generate two daily trips per day.

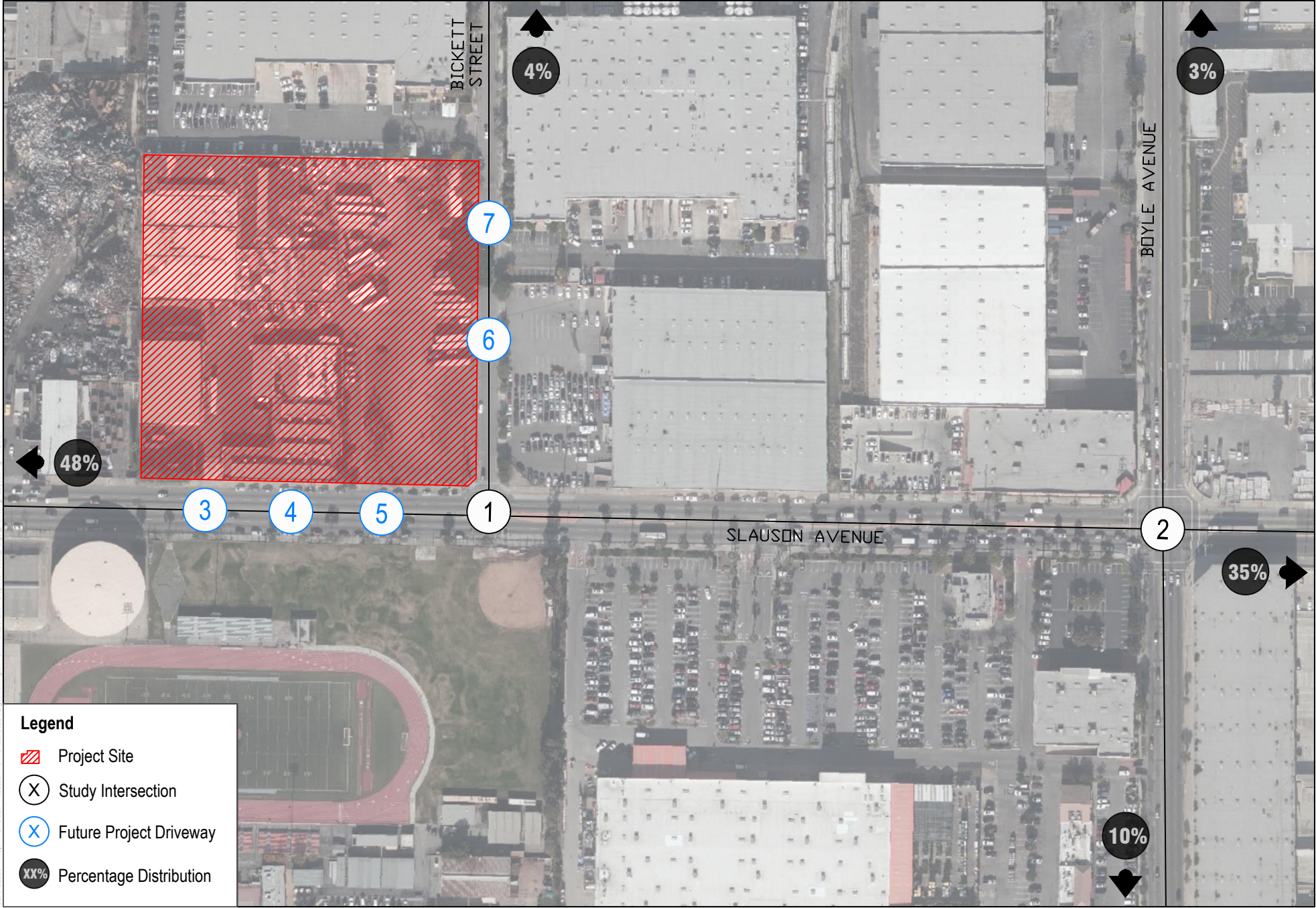
As shown in Table 4, the overlap of grading and building construction phase of the project is expected to generate maximum number of trips, i.e. approximately 80 daily trips, with 33 AM peak-hour trips (33 inbound and 0 outbound), and 40 PM peak-hour trips (0 inbound and 40 outbound). With the application of passenger-car equivalence (PCE) factors to truck trips, the proposed project would generate 100 PCE daily trips, with 36 PCE trips during the AM peak hour (36 inbound and 0 outbound) and 45 PCE trips during the PM peak hour (0 inbound and 45 outbound). The construction trip generation would be significantly lower than the proposed project’s operational trip generation shown in Table 3.

3.3 Trip Distribution and Assignment

Project trip distribution percentages were based on logical travel paths to commute corridors in the study area and using engineering judgement. Approximately, 48% of the project traffic would travel west along Slauson Avenue and 35% would travel east along Slauson Avenue. Approximately, 4% and 3% of the project traffic would travel north along Bickett Street and Boyle Avenue, respectively; and, 10% of the project traffic is estimated to travel south along Boyle Avenue. The project trip distribution is shown in Figure 4.

Project trips were assigned to the study area intersections and driveways by applying the project trip generation estimates to the trip distribution percentages at each location. Following figures illustrate the project’s trip assignment in the study area:

- The project trip assignment for project driveways is shown in Figure 5.
- The project trip assignment for with pass-by trips is shown in Figure 6.
- The net project trip assignment with pass-by reduction and internal trip capture is shown in Figure 7.
- Existing warehouse land use trip assignment in Figure 8.



SOURCE: Bing 2020

FIGURE 4

Trip Distribution

Slauson Marketplace Project



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Figure 5 Project Trip Assignment (Project Driveways)

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Figure 6 Project Trip Assignment (Pass-by Trips)

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Figure 7 Project Trip Assignment (with Pass-by Reduction and Internal Trip Capture)

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Figure 8 Existing Warehousing Land Use Trip Assignment

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4 VMT Analysis

The section provides a Vehicles Miles Traveled (VMT) screening analysis for the project using the State guidance for local serving retail projects.

4.1 Vehicle Miles Traveled Screening

OPR has approved the addition of new Section 15064.3, “Determining the Significance of Transportation Impacts” to the state’s CEQA Guidelines, compliance with which is required beginning July 1, 2020. The Updated CEQA Guidelines state that “generally, vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts” and define VMT as “the amount and distance of automobile travel attributable to a project.” Per OPR, heavy vehicle traffic is not required to be included in the estimation of a project’s VMT.

4.1.1 Methodology for VMT Estimation of Retail Projects

Per OPR’s Technical Advisory 2018, generally lead agencies should analyze the effects of a retail project by assessing the change in total VMT because retail projects typically re-route travel from other retail destinations. A retail project might lead to increases or decreases in VMT, depending on previously existing retail travel patterns.

4.1.2 Recommended Threshold for Retail Projects

Per Technical Advisory, because new retail development typically redistributes shopping trips rather than creating new trips, estimating the total change in VMT (i.e., the difference in total VMT in the area affected with and without the project) is the best way to analyze a retail project’s transportation impacts. Because new retail development typically redistributes shopping trips rather than creating new trips, estimating the total change in VMT (i.e., the difference in total VMT in the area affected with and without the project) is the best way to analyze a retail project’s transportation impacts. Generally, however, retail development including stores larger than 50,000 square feet might be considered regional-serving, and so lead agencies should undertake an analysis to determine whether the project might increase or decrease VMT.

The recommended VMT impact threshold for the proposed project per OPR is: “...a net increase in total VMT may indicate a significant transportation impact...”

4.1.3 Screening Criteria for Land use Projects

The Technical Advisory suggests that agencies may screen out VMT impacts using project size, maps, transit availability, and provision of affordable housing.

- **Screening Threshold for Small Projects** (110 daily trips or less): Since the project generates more than 110 trips per day, it cannot be assumed to cause a less-than-significant transportation impact.
- **Map Based Screening for Residential and Office Projects:** Currently, the City does not have VMT maps that can be utilized to identify areas with low VMT for projects and the project does not propose residential and/or office use.

- **Presumption of Less Than Significant Impact for Affordable Residential Development:** The project does not propose affordable residential units and is not a residential development.
- **Presumption of Less Than Significant Impact for Local Serving Retail:** For development projects, if the project leads to a net increase in provision of locally-serving retail, transportation impacts from the retail portion of the development should be presumed to be less than significant. Generally, local-serving retail less than 50,000 square feet can be assumed to cause a less-than-significant transportation impact. Therefore, the two proposed fast food with drive through restaurants of approximately 4,950 square feet and 3,100 square feet, respectively, would be screened out from further VMT analysis. Even though, the 55,891 square foot Target store would exceed the screening criteria of 50,000 square feet for local serving retail, the project can be screened out using the proximity to transit criteria shown below.
- **Presumption of Less Than Significant Impact Near Transit Stations:** Proposed CEQA Guideline Section 15064.3, subdivision (b)(1), states that lead agencies generally should presume that certain projects (including residential, retail, and office projects, as well as projects that are a mix of these uses) proposed within ½ mile of an existing major transit stop¹ or an existing stop along a high quality transit corridor² will have a less-than-significant impact on VMT. This presumption would not apply, if the project:
 - Has a Floor Area Ratio (FAR) of less than 0.75
 - Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking)
 - Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization)
 - Replaces affordable residential units with a smaller number of moderate- or high-income residential units

Metro bus routes 108, 251 and 254 operate along Slauson Avenue, Miles Avenue and Boyle Avenue in the vicinity of the proposed project. As shown in LA Metro System Map for Bus and Rail System (pre-COVID), bus route 108 has a frequency of 15 minutes during peak commute hours. Therefore, the project site is located within one-half mile of high-quality transit corridor (i.e. a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours) and can be screened using the proximity to transit availability criteria.

The above mentioned VMT screening criteria for local serving retail and transit proximity, apply to the project, therefore, a detailed VMT analysis is not required. A qualitative discussion of the project’s location and site analysis to support the conclusion of less than significant VMT impact is provided below.

4.2 Location and Site Analysis

The City of Huntington Park is centrally located within the greater Los Angeles metropolitan area in the Los Angeles County. The cities of Vernon and Maywood are located to the north; the City of South Gate and unincorporated Los Angeles County are located to the south; cities of Cudahy, Bell, and Maywood to the east; and

¹ Pub. Resources Code, § 21064.3 (“Major transit stop” means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.”)

² Pub. Resources Code, § 21155 (“For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.”).

the City of Los Angeles and unincorporated Los Angeles County are located to its west. The City of Huntington contains a variety of land uses; however, it is predominantly residential, with low-density, medium density, and high-residential density residential uses spread throughout the city. Most of the City’s residential areas are located within a 2-mile radius of the project site, north of Florence Avenue, east of Maywood Avenue and between State Street and west of the Alameda Rail Corridor. Figure 9 illustrates the 2-mile radius zone around the proposed project.

Commercial development in the City is found along the major roadways including Slauson Avenue, Pacific Boulevard, Gage Avenue, Santa Fe Avenue, and Florence Avenue. Smaller commercial development can be found along the frontages of some of the residential streets. The project site is located within a General Commercial zone along Slauson Avenue which allows for commercial uses such as lots, stores, retail, gas stations, auto repair and service stations. As such, the project is consistent with uses allowed per the City’s General Plan.

The project site is currently occupied by warehouse buildings that would be demolished to construct the proposed commercial use. The project is bordered to the north by industrial buildings, to the south by Slauson Avenue and Huntington Park High School, to the southwest by industrial and commercial uses, to the southeast by commercial use, to the east and northeast by Bickett Street and industrial uses beyond, and to the west by single story industrial uses.

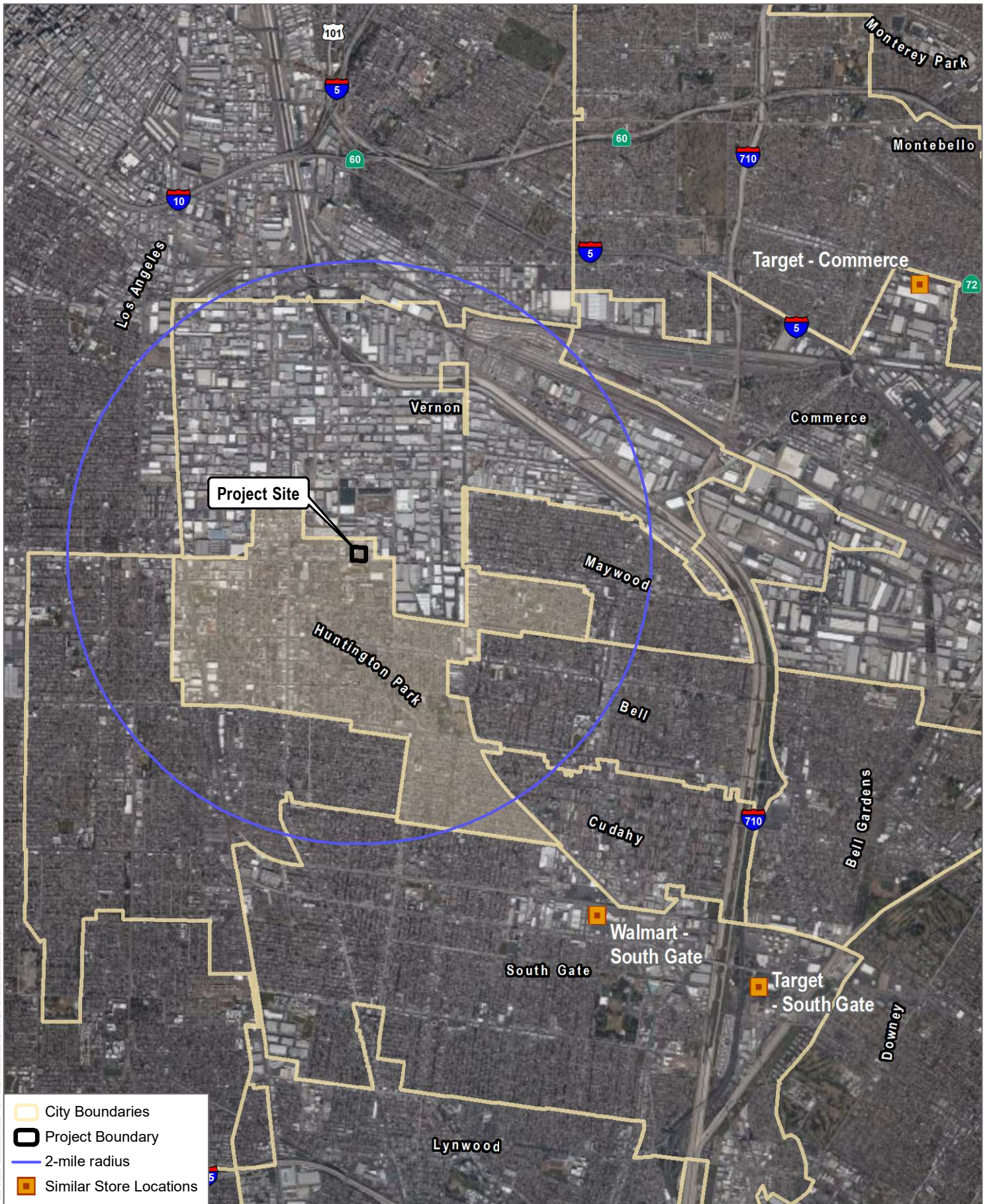
A retail development such as the proposed project would primarily depend on customers who reside adjacent or near the site (preferably within 5 to 15-minute drive or within a 2 to 3-mile radius). Additionally, the retail development also serves the needs of customers who work near the project but do not reside nearby. As mentioned above, the location of the project would attract residents from the City and customers from the nearby uses such as schools, warehouses/industrial development and other commercial uses.





Target is a general merchandize retailer which is essentially a discount store and is popular in urban markets within the United States. It sells a broad range of household goods, food and pet supplies, apparel and accessories, electronics, and decor etc. As shown in Table 5, the closest Target and Walmart (similar to Target) stores are located at least 3.8 miles from the project site. As such, the demand for the proposed Target store is anticipated to come from the existing residents and customers of the City, who are generally residing or working within the 2-mile radius shown on Figure 9.

Table 5. Location of Closest Target and Walmart Stores from the Project

Location	Distance from Project Site
1. Target - 5700 Firestone Blvd, South Gate, CA 90280	5.7 miles
2. Target - 5600 Whittier Blvd, Commerce, CA 90022	5.0 miles
3. Walmart - 4651 Firestone Blvd, South Gate, CA 90280	3.8 miles

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-  City Boundaries
-  Project Boundary
-  2-mile radius
-  Similar Store Locations

City of Vernon 2020; City of Huntington Park 2020; Bing Maps

Figure 9
Location Analysis Map

Slauson Marketplace Project

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As shown on Figure 1, Vicinity Map and Figure 3 Existing Transportation Setting, the proposed project is located within a well-developed urban location and is connected by major roadways to all parts of the City. The project is well served by bus transit and is located within an existing high-quality transit corridor. Therefore, the project is located within a highly accessible location which is well-served by all modes of transportation.

As mentioned in the Technical Advisory, because new retail development typically redistributes shopping trips rather than creating new trips, it can be inferred that the trips that are currently destined to existing Target and/or Walmart stores, would be re-routed to the Target store on the proposed project site. A review of trip lengths in the California Statewide Travel Demand Model (CSTDM), shows that the average trip length for shopping purpose (4.94 miles) is much shorter compared to average trip length for home based work trips (8.10 miles) in the traffic analysis zone (TAZ 4119) that the project is located within. Also, per ITE's *Trip Generation, 10th Edition*, a high percentage of the shopping trips are either pass-by or diverted trips. Therefore, the net new trips generated by the proposed project would not be significant and not cause a significant increase in VMT, and project impacts to VMT would be less than significant.

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5 Project Access Analysis

The following section analyzes the adequacy of all project driveways based on levels of service, 95th percentile (design) queuing, sight distance, and truck accessibility (where identified). The Bickett Street/Slauson Avenue intersection is also included in this analysis as it provides full access to the two driveways noted above and would serve as the truck access route to the Target loading area.

As discussed in Section 1 and summarized below, local access to the project site would be provided via five driveways from Slauson Avenue and Bickett Street. All project access driveways are unsignalized.

- Restaurant Drive-Thru Exit/Slauson Avenue – right-out/left-out only
- West Driveway/Slauson Avenue – full access
- East Driveway/Slauson Avenue – right turn in/out only
- Bickett Street/South Driveway – full-access
- Bickett Street/North Driveway – full-access (truck access)

Figure 10 illustrates the intersection controls and geometrics in the study area.

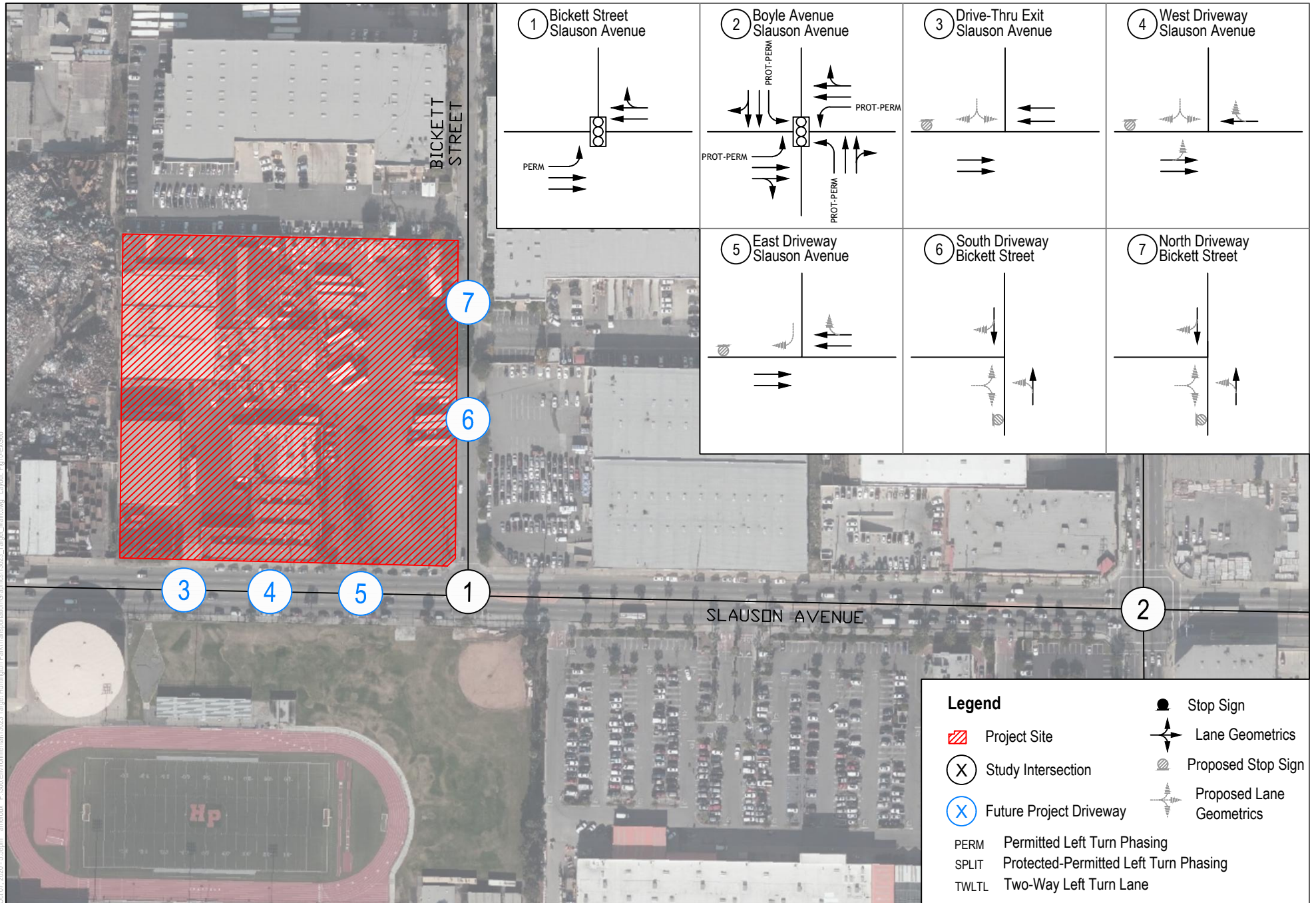
Existing Baseline Volumes

Traffic counts at the intersections of Bickett Street/Slauson Avenue and Boyle Avenue/Slauson Avenue were collected on September 24, 2020. Historical (pre-pandemic) counts were available from 2017 at the Boyle Avenue/Slauson Avenue intersection. These 2017 counts were compared to the 2020 (pandemic) counts to obtain percentage differences at the Boyle Avenue/Slauson Avenue intersection. These percentages were then applied to the Bickett Street/Slauson Avenue intersection, and adjusted to 2020 using a growth factor of 1.33% per year per the CMP, as described below. Figure 11 illustrates the Existing Peak Hour Traffic Volumes at the study area intersections.

Existing plus Ambient Growth plus Cumulative Projects plus Project

Traffic volumes from 2017 were balanced and grown 3 years (approximately 1.33% per year) according to the growth rates listed from the year 2015 to 2020 Regional Statistical Area (RSA) 21, and then subsequently 2 years (approximately 0.21% per year) from the year 2020 to 2022 as described in the Los Angeles County Congestion Management Program (2010). A list of cumulative projects from the City of Huntington Park Community Development Department and the City of Vernon Publics Works Department were obtained and projects within the study area were added. The City of Maywood indicated there were no cumulative projects in their City within the vicinity of the proposed project. The locations of the cumulative projects is displayed in Figure 12. Finally, the project trip assignment as described in Section 3 Project Trip Generation was added to create the Existing plus Ambient Growth plus Cumulative Projects plus Project scenario. Figure 13 illustrates the Existing + Ambient Growth + Cumulative Projects + Project Traffic Volumes that were analyzed in the LOS and queuing analysis of the study are intersections.

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SOURCE: Bing 2020



FIGURE 10
Existing Intersection Controls and Geometrics

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Figure 11 Existing Peak Hour Traffic Volumes

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City of Vernon 2020; City of Huntington Park 2020; Bing Maps

Figure 12
Cumulative Project Locations
 Slauson Marketplace Project

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Figure 13 Existing + Ambient Growth + Cumulative Projects + Project Traffic Volumes

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5.1 Level of Service Analysis

An intersection LOS analysis was prepared for the Existing plus Ambient Growth plus Cumulative Projects plus Project condition using HCM 6th Edition methodology via the Synchro LOS software in Section 1.3 Analysis Methodology. The LOS at the five project access driveways and the Bickett Street/Slauson Avenue intersection (intersections #1, #3, #4, #5, #6 and #7) is provided below. Table 6 show the results of the Existing plus Ambient Growth plus Cumulative Projects plus Project LOS analysis. LOS worksheets are provided in Appendix B.

Table 6. Existing plus Ambient Growth plus Cumulative Projects plus Project Access Driveway Intersection Level of Service

Intersection	Control/ LOS Method	Worst Delayed Movement	Existing plus Ambient Growth plus Cumulative Projects plus Project			
			AM Peak		PM Peak	
			Delay ¹	LOS ²	Delay ¹	LOS ²
Bickett Street/ Slauson Avenue	Signal/HCM ³	N/A	10.5	B	12.6	B
Drive-Thru Exit/Slauson Avenue	TWSC/HCM ³	SBLR	23.0	C	20.5	C
West Driveway/Slauson Avenue	TWSC/HCM ³	SBLR	29.9	D	24.6	C
East Driveway/Slauson Avenue	TWSC/HCM ³	SBR	15.7	C	14.5	B
Bickett Street/South Driveway	TWSC/HCM ³	EBLR	9.2	A	9.3	A
Bickett Street/North Driveway	TWSC/HCM ³	EBLR	9.0	A	9.1	A

Source: Dudek 2020

Notes: HCM = Highway Capacity Manual; TWSC = Two-Way Stop-Controlled

¹ Delay in seconds per vehicle

² Level of Service (LOS)

³ For signalized intersections LOS is reported based on the average delay of all approaches of the intersection; for TWSC intersections the LOS is reported based on the worst delayed movement of the intersection.

As shown in Table 6, all project access driveways and the intersection of Bickett Street/Slauson Avenue are forecast to operate with satisfactory LOS, at LOS D or better, during both peak hours under the Existing plus Ambient Growth plus Cumulative Projects plus Project scenario. The detailed LOS worksheets are provided in Appendix B.

5.2 Queuing Analysis

A queuing analysis was prepared for all project driveways to assess the adequacy of any off-site storage lanes into the project site. Additionally, the number of vehicles at the project’s driveways were noted to determine if there would be adequate driveway throat length or space on-site for vehicles to queue without effecting the internal circulation on the project site. Queuing was analyzed utilizing the SimTraffic software, which calculates the 95th percentile (design) queue. All queuing analysis data and SimTraffic queuing worksheets are further provided below and in Appendix B.

As shown in Table 7, none of the calculated 95th percentile (design) queues exceed storage capacities within the existing left-turn pockets or TWLTL along Slauson Avenue into the project site, with exception of the eastbound left-turn lane at Bickett Street/Slauson Avenue.

Table 7. Existing plus Ambient Growth plus Cumulative Projects plus Project Access Driveway Queuing Summary

Intersection/Driveway	Movement	Vehicle Storage Length ¹	Existing plus Ambient Growth plus Cumulative Projects plus Project ²		Exceeds Vehicle Storage Length?		Improvement Warranted?
			AM	PM	AM	PM	
Bickett Street/Slauson Ave	EBL ³	100	156	124	Yes	Yes	Yes
	SBLR ⁴	200	134	150	No	No	No
	WBTR ⁴	475	358	344	No	No	No
Drive-Thru Exit/Slauson Ave	SBLR ⁵	200	140	98	No	No	No
West Driveway/Slauson Ave	EBL ³	75	39	36	No	No	No
	WBTR ⁴	115	22	44	No	No	No
	SBLR ⁵	230	263	229	Yes	No	No ⁶
East Driveway/Slauson Ave	WBTR ⁴	130	0	7	No	No	No
	SBR ⁵	230	39	35	No	No	No
Bickett St/South Driveway	EBLR ⁵	185	50	54	No	No	No
	NBLT ⁴	210	32	31	No	No	No
Bickett St/North Driveway	EBLR ⁵	100	58	51	No	No	No
	NBLT ⁴	150	18	23	No	No	No

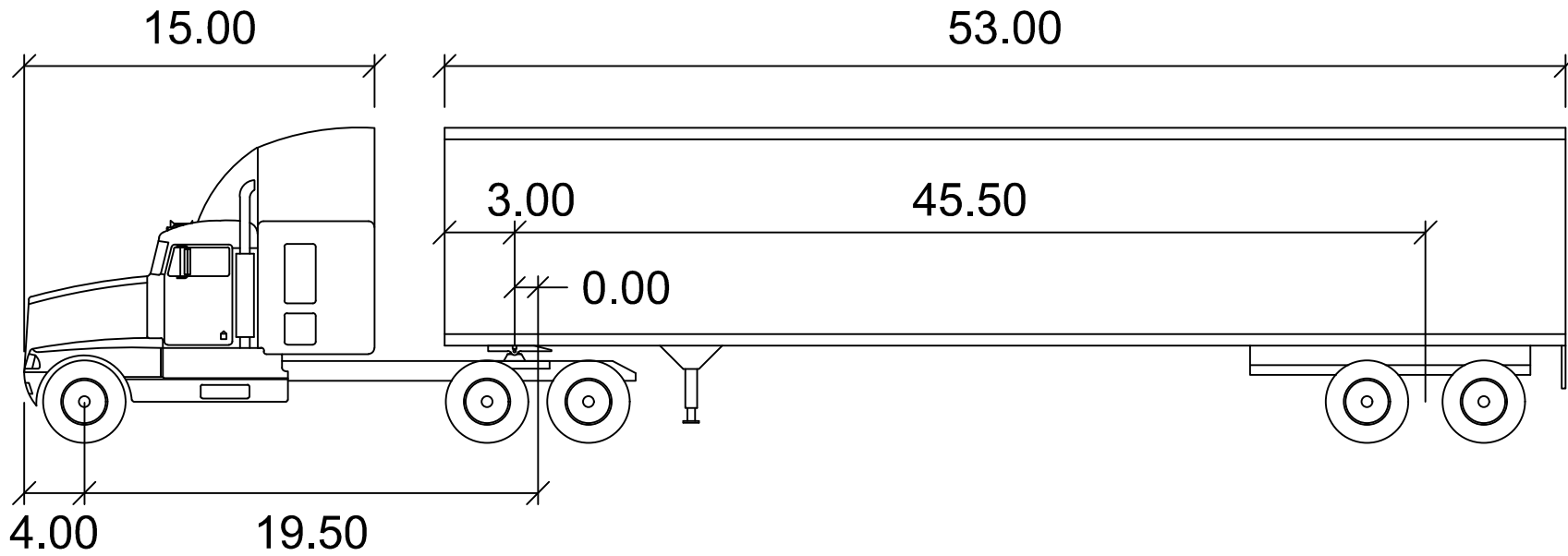
Notes:

- ¹ Measured in feet
- ² Based on 95th percentile (design) queue length in SimTraffic 10
- ³ Length measured as available left-turn pocket or TWLTL and rounded to the nearest foot
- ⁴ Length measured from stop bar/edge of driveway to the edge of the nearest existing or proposed project driveway
- ⁵ Estimated from throat length shown in the site plan (Figure 2)
- ⁶ Queue would remain on-site and would not constrain through volumes on Slauson Avenue
- XX** Queue exceeds storage length

Additionally, as shown in Figure 2 and noted in Table 7 below, there is adequate storage capacity within the project site such that vehicles can queue on-site as needed. Although queues would extend further than the identified throat length at the West Driveway/Slauson Avenue, adjacent drive aisles would allow additional queuing.

5.3 Truck Access Analysis

As the proposed project would include a Target store, and would be expected to accommodate truck access at the loading dock in the northern area of the project site, a truck turning template has been overlaid on the site plan to determine whether adequate curb radii are available for semi-tractor-trailer trucks (with a 67 foot wheelbase, or WB-67) to circulate in and out, and within, the project site. The project site will only be accessible to truck traffic via the existing intersection of Bickett Street/Slauson Avenue and the proposed northern project driveway along Bickett Street. A WB-67 design vehicle has been utilized to provide a conservative analysis. The WB-67 design vehicle template is provided in Figure 14.



WB-67

feet

Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.0
Trailer Track	: 8.50		

SOURCE: AASHTO 2011

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Figures 15 and 16 show the inbound and outbound WB-67 template overlay at the Bickett Street/Slauson Avenue intersection, respectively. As shown in Figure 15, a truck would be unable to navigate the westbound right turning movement from Slauson Avenue onto Bickett Street due to the existing curb radius. A truck would be able to make an eastbound left traveling from Slauson Avenue onto Bickett Street without hitting a curb; however, the truck would travel into the southbound approach lane on Bickett Street. Additionally, as shown in Figure 16, a truck would only be able to navigate the southbound left turning movement from Bickett Street to travel east onto Slauson Avenue; however, a truck would not be able to perform a southbound right turn from Bickett to travel west onto Slauson Avenue due to the existing curb radius. As such, truck movements at this intersection would be restricted to southbound left at any time, and eastbound left during non-peak operating hours.

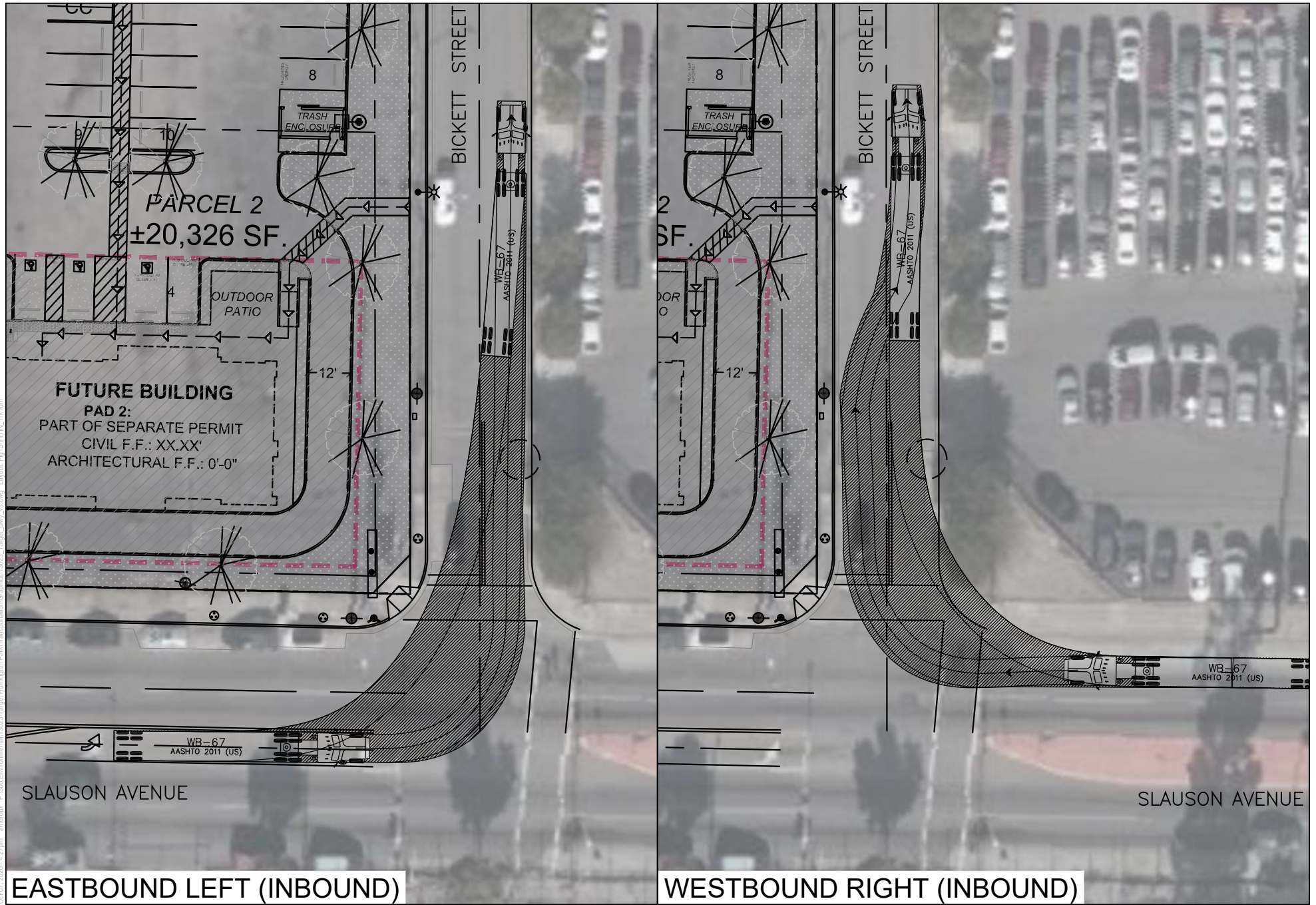
Figures 17, 18, and 19 show the WB-67 template overlays at the northern site access driveway along Bickett Street. Figure 17 identifies the truck turning movements required to reach the loading dock from a vehicle traveling north on Bickett Street. As shown, a WB-67 would not completely clear the landscaped island at the western edge of the parking lot. In addition to the raised curb at the western edge of the parking lot, the northern curb of the access driveway would also not provide a sufficient curb radius for a truck traveling south into the project site, as shown in Figure 18. As shown in Figure 19, a truck would be able to navigate the eastbound left-turning movement; however, the southern curb of the project access driveway would not provide a sufficient curb radius for trucks attempting to make an eastbound right turn from the project site.

5.4 Sight Distance Analysis

Per the American Association of State Highway Transportation Officials (AASHTO), “...*sight distance is the length of the roadway ahead that is visible to the driver...*” and “...*available sight distance on a roadway should be sufficiently long to enable a vehicle traveling at or near the design speed to stop before reaching a stationary object in its path*” (AASHTO 2018). Prior to issuance of a building permit, the applicant would be required to meet all standards and guidelines required by the City.

A sight distance analysis was performed at each driveway along Slauson Avenue, based on the posted speed limit of 35 MPH, and is illustrated on Figure 20. As shown, on street parking would need to be removed to provide adequate site distance for vehicles exiting the site along Slauson Avenue.

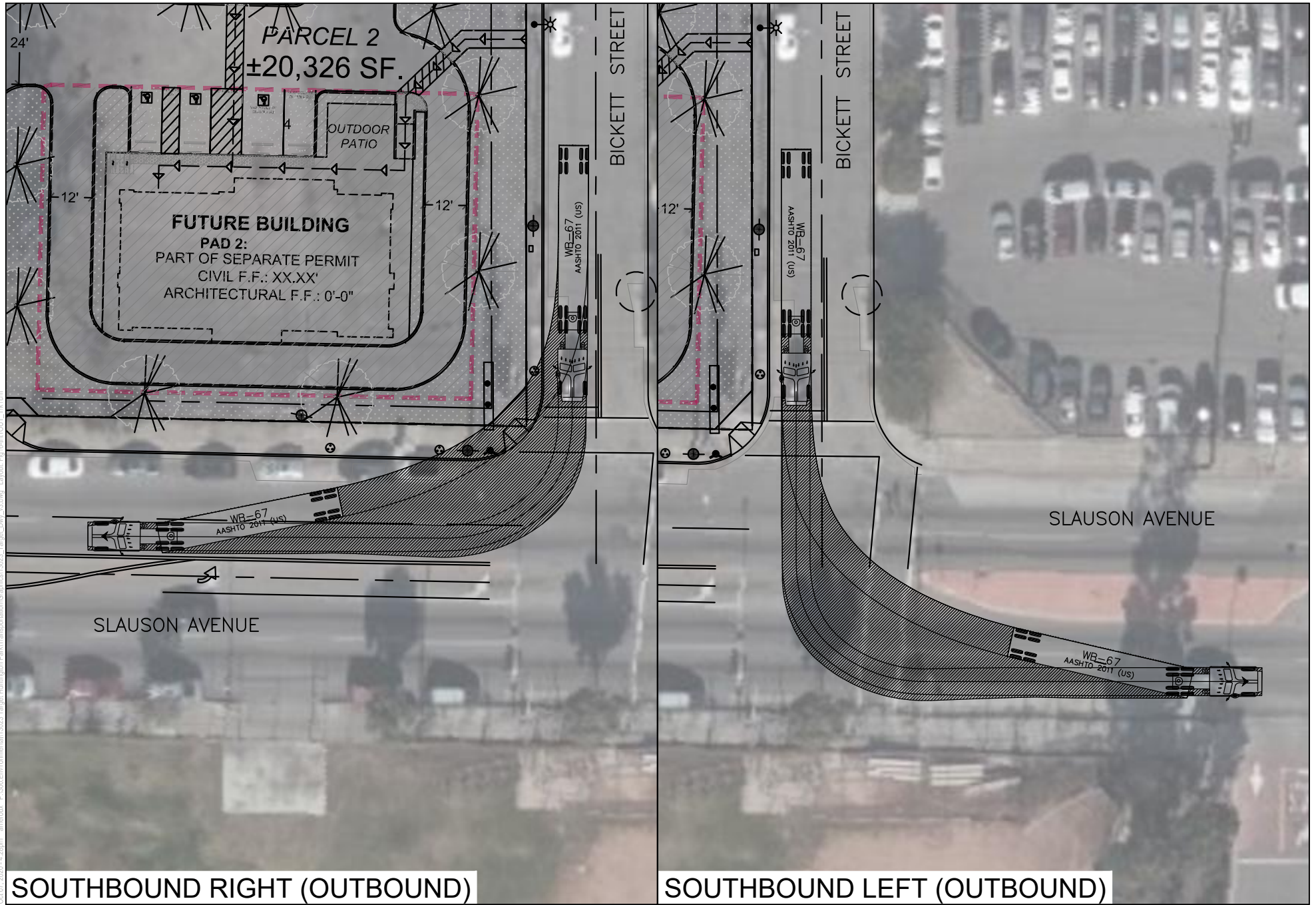
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SOURCE: DLR Group 2020; AASHTO 2011

FIGURE 15
 Truck Turn Analysis - Bickett Street/Slauson Avenue (Inbound)
 Slauson Marketplace Project

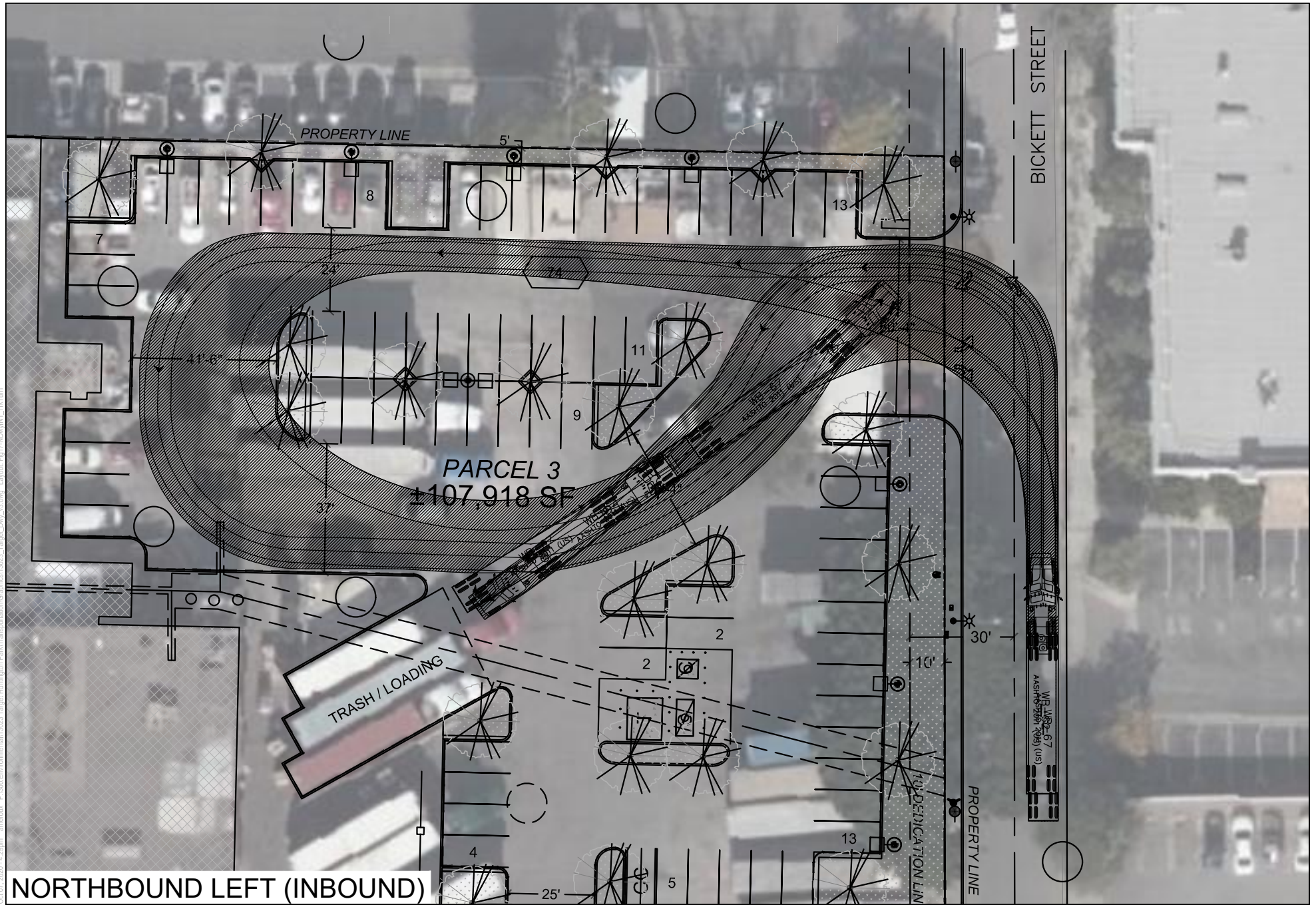
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SOURCE: DLR Group 2020; AASHTO 2011



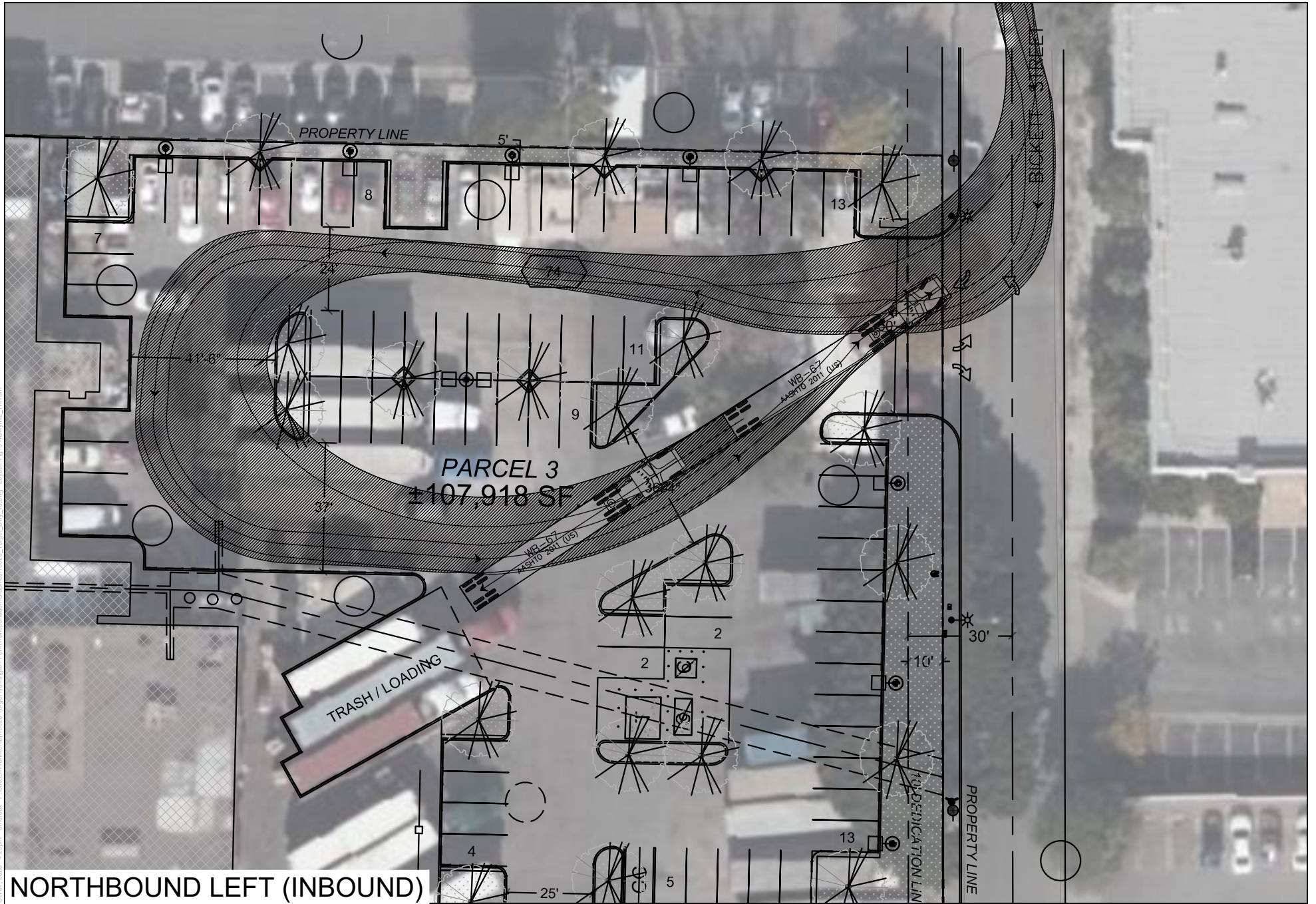
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NORTHBOUND LEFT (INBOUND)

SOURCE: DLR Group 2020; AASHTO 2011

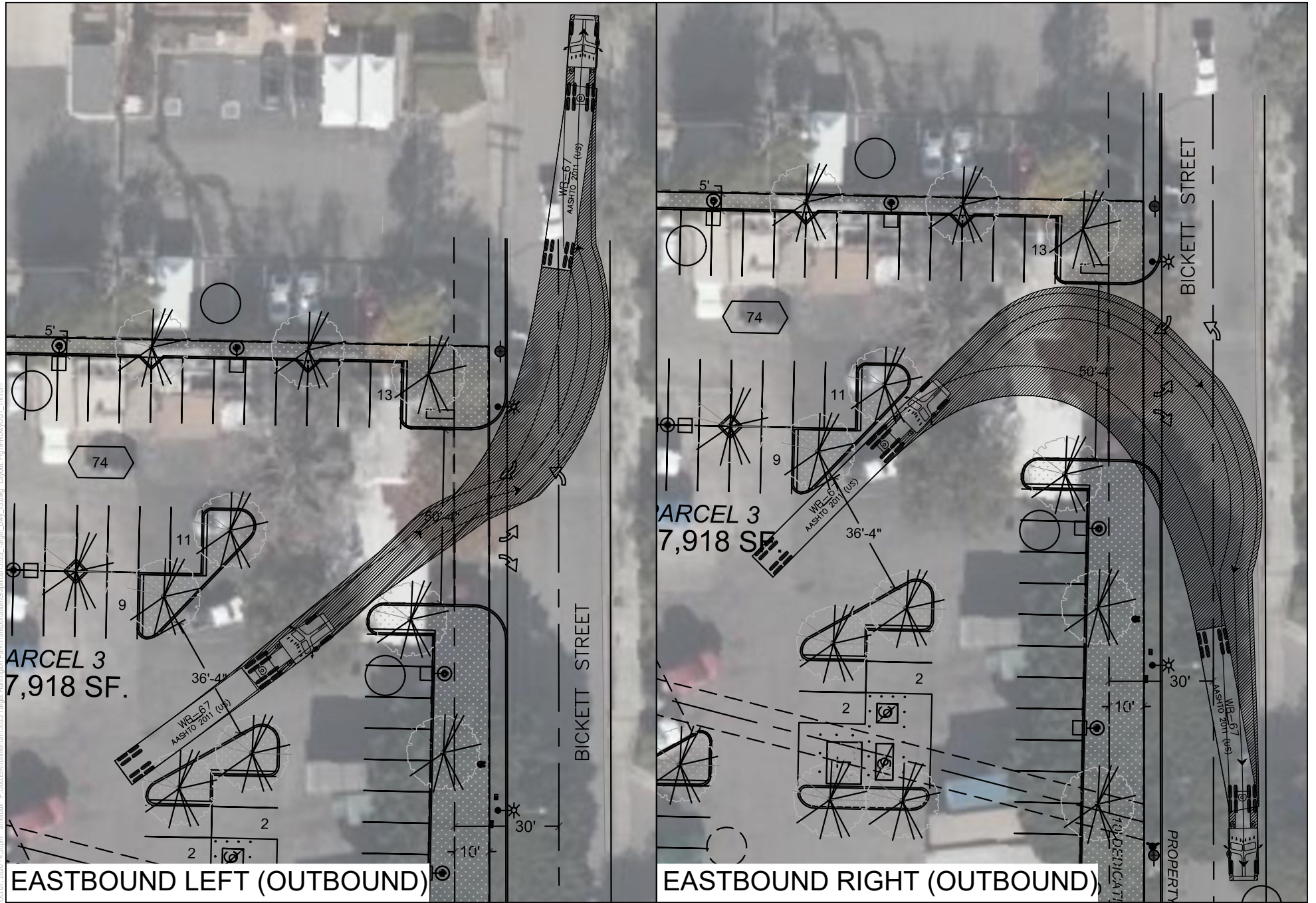
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NORTHBOUND LEFT (INBOUND)

SOURCE: DLR Group 2020; AASHTO 2011

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SOURCE: DLR Group 2020; AASHTO 2011

FIGURE 19
Truck Turn Analysis - Bickett Street/North Driveway (Outbound)

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Figure 20 Sight Distance Analysis – Slauson Avenue

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6 Improvement Measures

Based on the VMT and traffic analyses above, the proposed project would not be required to make any off-site improvements in the study area.

SECTION TO BE UPDATED UPON REVIEW OF TRUCK CIRCULATION ISSUES, AND COORDINATION OF THE CITY AND PROJECT TEAM

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7 Findings

Based on the transportation analysis of the proposed project, the following findings are made:

- The project proposes to develop a 55,891 square foot Target store and two fast food with drive through restaurants of approximately 4,950 square feet and 3,100 square feet, respectively, at the northwestern corner of Slauson Avenue and Bickett Street in the City of Huntington Park.
- Using pass by and internal trip capture reductions, the proposed project would generate net new 4,356 daily trips, 233 AM peak hour trips (123 inbound and 110 outbound), and 130 trips during the PM peak hour (65 inbound and 65 outbound).
- The two proposed fast food with drive through restaurants of approximately 4,950 square feet and 3,100 square feet, respectively, would be screened out from preparing a detailed VMT analysis. Even though, the 55,891 square foot Target store would exceed the screening criteria of 50,000 square feet for local serving retail, the project can be screened out since it is located within an existing High-Quality Transit Corridor. Based on the Location and Site Analysis, it can be inferred that the net new trips generated by the proposed project would not be significant and not cause a significant increase in VMT. The project impacts to VMT would be less than significant.
- **SECTION TO BE UPDATED UPON REVIEW OF TRUCK CIRCULATION ISSUES, AND COORDINATION OF THE CITY AND PROJECT TEAM**

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8 References

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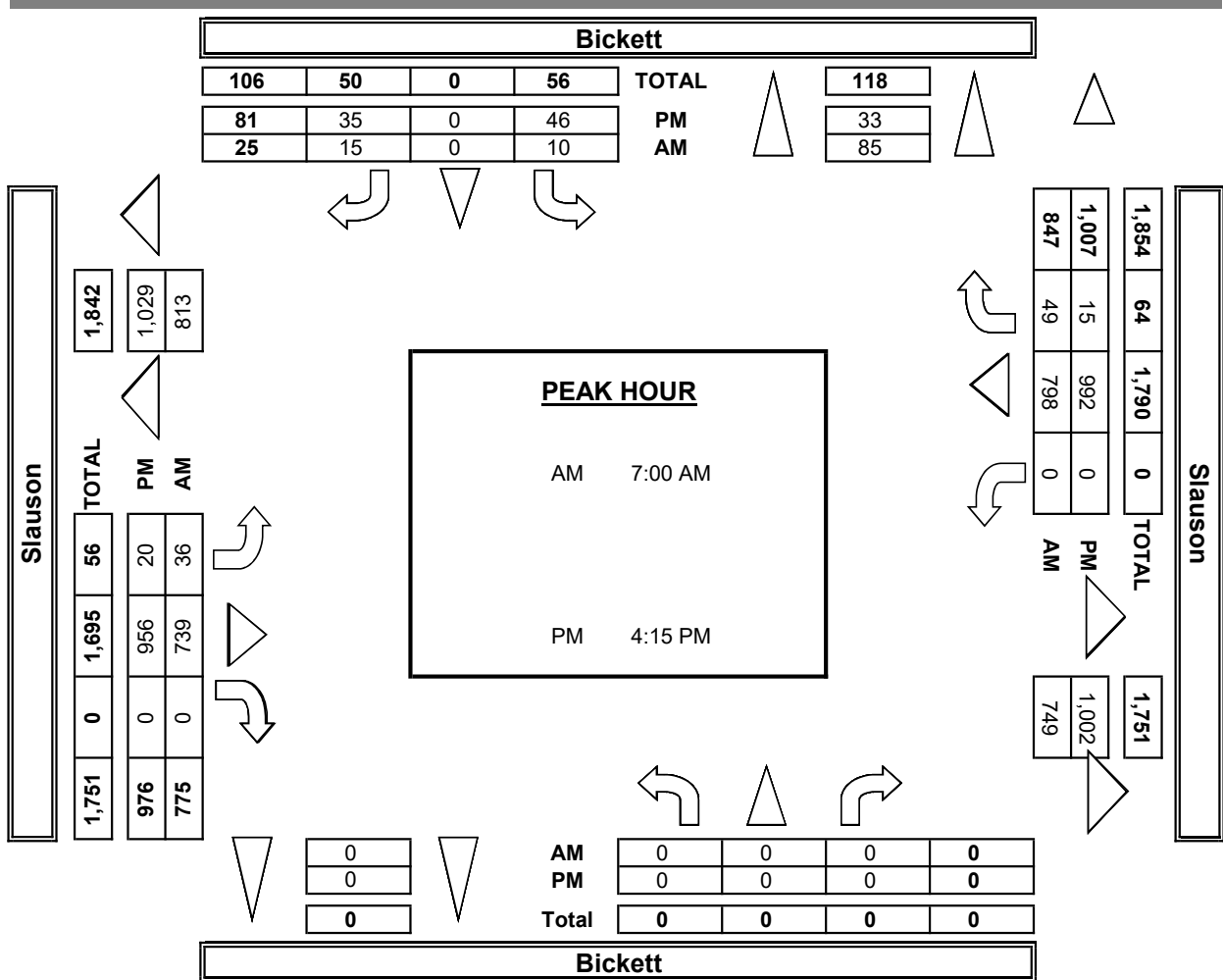
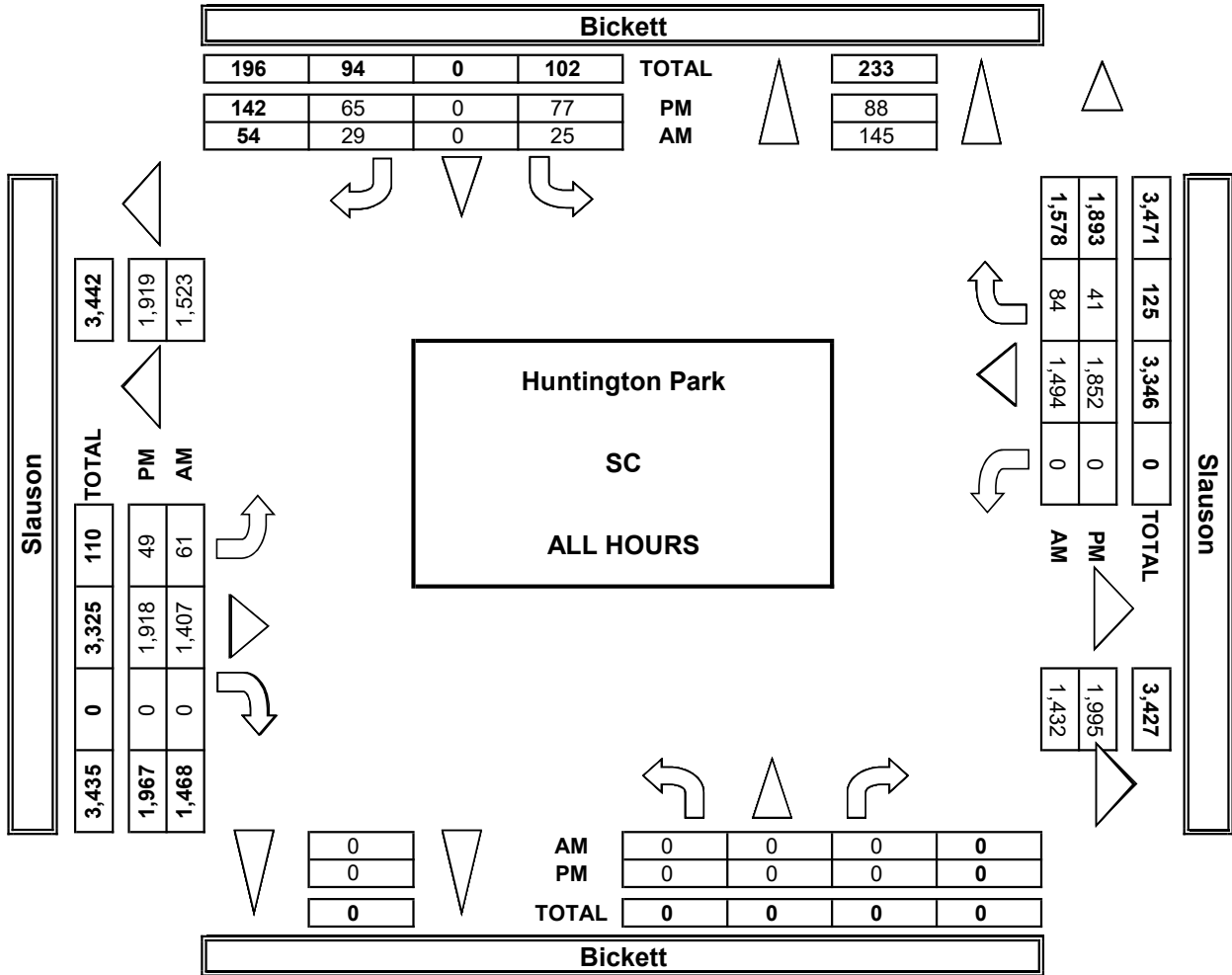
TRB (Transportation Research Board). 2016. *Highway Capacity Manual*. (6th Edition).

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APPENDIX A

Traffic Counts

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
9/24/20
THURSDAY

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Huntington Park
Bickett
Slauson

PROJECT #: SC
LOCATION #: 1
CONTROL: STOP S

CLASS 1:	NOTES:				
PASSENGER VEHICLES		AM		▲ N	
		PM	◀ W		▶ E
		MD		▼ S	
		OTHER			
		OTHER			

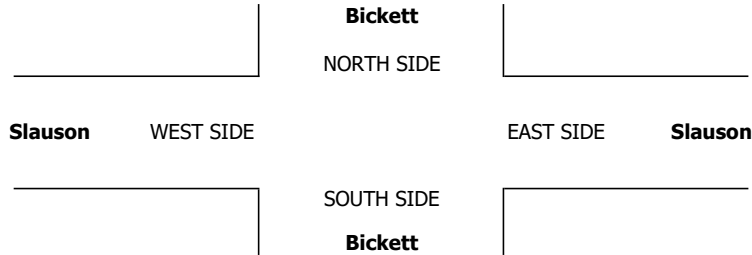
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Bickett			Bickett			Slauson			Slauson			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	X	X	X	0	X	0	1	2	X	X	2	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

AM	7:00 AM	0	0	0	1	0	2	8	159	0	0	157	9	336
	7:15 AM	0	0	0	2	0	6	18	186	0	0	179	19	410
	7:30 AM	0	0	0	2	0	2	6	183	0	0	194	7	394
	7:45 AM	0	0	0	3	0	1	4	160	0	0	179	17	364
	8:00 AM	0	0	0	3	0	3	6	136	0	0	165	4	317
	8:15 AM	0	0	0	0	0	2	5	162	0	0	138	10	317
	8:30 AM	0	0	0	2	0	5	6	154	0	0	154	5	326
	8:45 AM	0	0	0	5	0	2	3	122	0	0	154	9	295
	VOLUMES	0	0	0	18	0	23	56	1,262	0	0	1,320	80	2,759
	APPROACH %	0%	0%	0%	44%	0%	56%	4%	96%	0%	0%	94%	6%	
APP/DEPART	0	/	136	41	/	0	1,318	/	1,280	1,400	/	1,343	0	
BEGIN PEAK HR	7:00 AM													
VOLUMES	0	0	0	8	0	11	36	688	0	0	709	52	1,504	
APPROACH %	0%	0%	0%	42%	0%	58%	5%	95%	0%	0%	93%	7%		
PEAK HR FACTOR	0.000			0.594			0.887			0.947			0.917	
APP/DEPART	0	/	88	19	/	0	724	/	696	761	/	720	0	
PM	04:00 PM	0	0	0	9	0	11	1	232	0	0	187	4	444
	4:15 PM	0	0	0	11	0	6	7	232	0	0	230	2	488
	4:30 PM	0	0	0	16	0	13	3	215	0	0	239	3	489
	4:45 PM	0	0	0	5	0	4	4	226	0	0	237	3	479
	5:00 PM	0	0	0	12	0	11	3	228	0	0	238	7	499
	5:15 PM	0	0	0	7	0	7	8	215	0	0	216	6	459
	5:30 PM	0	0	0	4	0	6	6	233	0	0	215	7	471
	5:45 PM	0	0	0	9	0	6	14	225	0	0	189	8	451
	VOLUMES	0	0	0	73	0	64	46	1,806	0	0	1,751	40	3,780
	APPROACH %	0%	0%	0%	53%	0%	47%	2%	98%	0%	0%	98%	2%	
APP/DEPART	0	/	84	137	/	0	1,852	/	1,879	1,791	/	1,817	0	
BEGIN PEAK HR	4:15 PM													
VOLUMES	0	0	0	44	0	34	15	901	0	0	944	15	1,955	
APPROACH %	0%	0%	0%	56%	0%	44%	2%	98%	0%	0%	98%	2%		
PEAK HR FACTOR	0.000			0.672			0.960			0.979			0.979	
APP/DEPART	0	/	30	78	/	0	918	/	945	959	/	980	0	

0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0

0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	2	0	2



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
9/24/20
THURSDAY

LOCATION: Huntington Park
NORTH & SOUTH: Bickett
EAST & WEST: Slauson

PROJECT #: SC
LOCATION #: 1
CONTROL: STOP S

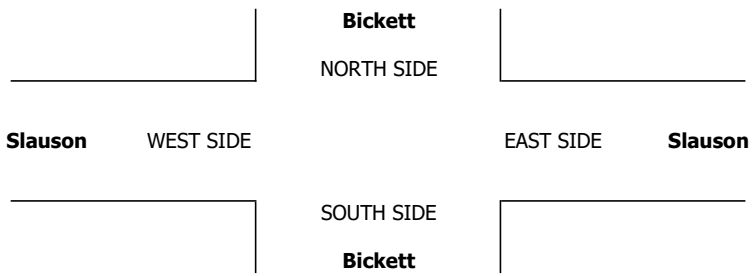
CLASS 2:	NOTES:	AM PM MD OTHER OTHER	← W	▲ N S ▼	E ►
2-AXLE WORK VEHICLES/ TRUCKS					

LANES:	NORTHBOUND <small>Bickett</small>			SOUTHBOUND <small>Bickett</small>			EASTBOUND <small>Slauson</small>			WESTBOUND <small>Slauson</small>			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	X	X	X	0	X	0	1	2	X	X	2	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

AM	7:00 AM	0	0	0	0	0	1	0	3	0	0	4	0	8
	7:15 AM	0	0	0	0	0	1	1	12	0	0	10	0	24
	7:30 AM	0	0	0	0	0	1	0	9	0	0	19	1	30
	7:45 AM	0	0	0	0	0	0	0	8	0	0	20	0	28
	8:00 AM	0	0	0	0	0	0	1	16	0	0	11	0	28
	8:15 AM	0	0	0	1	0	0	0	12	0	0	13	0	26
	8:30 AM	0	0	0	2	0	0	1	16	0	0	25	1	45
	8:45 AM	0	0	0	1	0	0	1	10	0	0	15	1	28
	VOLUMES	0	0	0	4	0	3	4	86	0	0	117	3	217
	APPROACH %	0%	0%	0%	57%	0%	43%	4%	96%	0%	0%	98%	3%	
APP/DEPART	0	/	7	7	/	0	90	/	90	120	/	120	0	
BEGIN PEAK HR	8:00 AM													
VOLUMES	0	0	0	4	0	0	3	54	0	0	64	2	127	
APPROACH %	0%	0%	0%	100%	0%	0%	5%	95%	0%	0%	97%	3%		
PEAK HR FACTOR	0.000			0.500			0.838			0.635			0.706	
APP/DEPART	0	/	5	4	/	0	57	/	58	66	/	64	0	
PM	04:00 PM	0	0	0	1	0	0	0	13	0	0	6	0	20
	4:15 PM	0	0	0	0	0	0	1	7	0	0	5	0	13
	4:30 PM	0	0	0	1	0	1	0	8	0	0	12	0	22
	4:45 PM	0	0	0	1	0	0	0	14	0	0	5	0	20
	5:00 PM	0	0	0	0	0	0	0	7	0	0	7	0	14
	5:15 PM	0	0	0	0	0	0	0	5	0	0	9	0	14
	5:30 PM	0	0	0	0	0	0	0	9	0	0	10	0	19
	5:45 PM	0	0	0	0	0	0	0	12	0	0	9	0	21
	VOLUMES	0	0	0	3	0	1	1	75	0	0	63	0	143
	APPROACH %	0%	0%	0%	75%	0%	25%	1%	99%	0%	0%	100%	0%	
APP/DEPART	0	/	1	4	/	0	76	/	78	63	/	64	0	
BEGIN PEAK HR	4:00 PM													
VOLUMES	0	0	0	3	0	1	1	42	0	0	28	0	75	
APPROACH %	0%	0%	0%	75%	0%	25%	2%	98%	0%	0%	100%	0%		
PEAK HR FACTOR	0.000			0.500			0.768			0.583			0.852	
APP/DEPART	0	/	1	4	/	0	43	/	45	28	/	29	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 9/24/20 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Huntington Park Bickett Slauson	PROJECT #: SC LOCATION #: 1 CONTROL: STOP S															
CLASS 3: 3-AXLE TRUCKS	NOTES:		<table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <td style="padding: 2px;">AM</td> <td style="padding: 2px;">▲</td> <td style="padding: 2px;">N</td> </tr> <tr> <td style="padding: 2px;">PM</td> <td style="padding: 2px;">◀</td> <td style="padding: 2px;">W</td> </tr> <tr> <td style="padding: 2px;">MD</td> <td style="padding: 2px;">▶</td> <td style="padding: 2px;">E</td> </tr> <tr> <td style="padding: 2px;">OTHER</td> <td style="padding: 2px;">▼</td> <td style="padding: 2px;">S</td> </tr> <tr> <td style="padding: 2px;">OTHER</td> <td></td> <td></td> </tr> </table>	AM	▲	N	PM	◀	W	MD	▶	E	OTHER	▼	S	OTHER		
AM	▲	N																
PM	◀	W																
MD	▶	E																
OTHER	▼	S																
OTHER																		

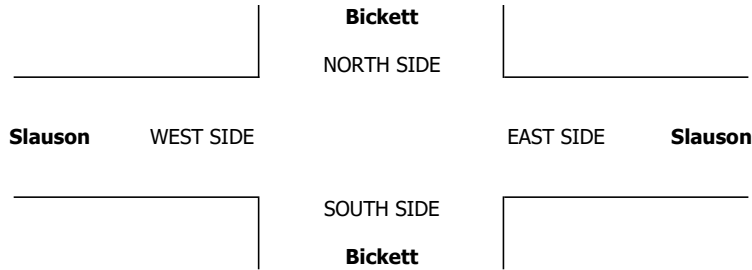
LANES:	NORTHBOUND <small>Bickett</small>			SOUTHBOUND <small>Bickett</small>			EASTBOUND <small>Slauson</small>			WESTBOUND <small>Slauson</small>			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	X	X	X	0	X	0	1	2	X	X	2	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
AM													
7:00 AM	0	0	0	0	0	0	0	1	0	0	3	0	4
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:30 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
7:45 AM	0	0	0	0	0	0	0	2	0	0	2	0	4
8:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
8:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
8:30 AM	0	0	0	0	0	1	1	1	0	0	2	0	5
8:45 AM	0	0	0	0	0	0	0	3	0	0	0	0	3
VOLUMES	0	0	0	0	0	1	1	11	0	0	11	0	24
APPROACH %	0%	0%	0%	0%	0%	100%	8%	92%	0%	0%	100%	0%	
APP/DEPART	0	/	1	1	/	0	12	/	11	11	/	12	0
BEGIN PEAK HR	7:45 AM												
VOLUMES	0	0	0	0	0	1	1	5	0	0	6	0	13
APPROACH %	0%	0%	0%	0%	0%	100%	17%	83%	0%	0%	100%	0%	
PEAK HR FACTOR	0.000			0.250			0.750			0.750			0.650
APP/DEPART	0	/	1	1	/	0	6	/	5	6	/	7	0
PM													
04:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
4:30 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
4:45 PM	0	0	0	0	0	0	0	2	0	0	2	0	4
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	1	2
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	2	0	0	2	0	4
VOLUMES	0	0	0	1	0	0	0	9	0	0	8	1	19
APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	89%	11%	
APP/DEPART	0	/	1	1	/	0	9	/	10	9	/	8	0
BEGIN PEAK HR	4:00 PM												
VOLUMES	0	0	0	1	0	0	0	4	0	0	6	0	11
APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR	0.000			0.250			0.500			0.750			0.688
APP/DEPART	0	/	0	1	/	0	4	/	5	6	/	6	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 9/24/20 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Huntington Park Bickett Slauson	PROJECT #: SC LOCATION #: 1 CONTROL: STOP S
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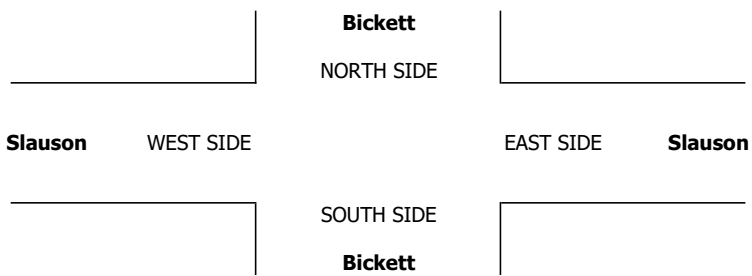
CLASS 5: RV	NOTES:	AM PM MD OTHER OTHER	◀ W E ▶	▲ N S ▼
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LANES:	NORTHBOUND <small>Bickett</small>			SOUTHBOUND <small>Bickett</small>			EASTBOUND <small>Slauson</small>			WESTBOUND <small>Slauson</small>			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	X	X	X	0	X	0	1	2	X	X	2	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

	NORTHBOUND <small>Bickett</small>			SOUTHBOUND <small>Bickett</small>			EASTBOUND <small>Slauson</small>			WESTBOUND <small>Slauson</small>			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
AM													
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	
BEGIN PEAK HR	7:00 AM												
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR	0.000			0.000			0.000			0.000			
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	
PM													
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	
BEGIN PEAK HR	4:00 PM												
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR	0.000			0.000			0.000			0.000			
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

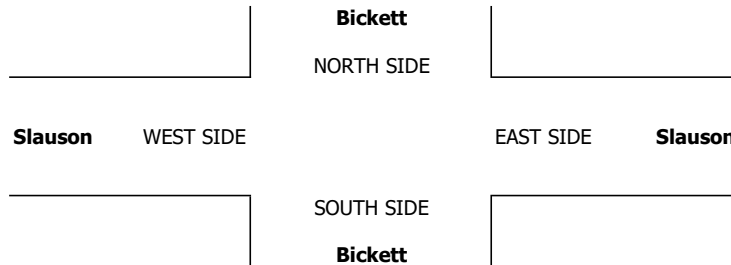
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 9/24/20 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Huntington Park Bickett Slauson	PROJECT #: LOCATION #: CONTROL:	SC 1 STOP S
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CLASS 6:	NOTES:	AM PM MD OTHER	◀ W E ▶	▲ N S ▼
BUSES				

LANES:	NORTHBOUND Bickett			SOUTHBOUND Bickett			EASTBOUND Slauson			WESTBOUND Slauson			TOTAL	U-TURNS				
	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 1	ET 2	ER X	WL X	WT 2	WR 0		NB	SB	EB	WB	TTL

AM	7:00 AM	0	0	0	0	0	0	0	2	0	0	1	0	3	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	2	0	0	1	0	3	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	2	0	0	2	0	4	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	10	0	0	9	0	19	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%		0	0	0	0	0
APP/DEPART	0	/	0	0	/	0	10	/	10	9	/	9	0						
BEGIN PEAK HR	7:30 AM																		
VOLUMES	0	0	0	0	0	0	0	6	0	0	4	0	10						
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%							
PEAK HR FACTOR	0.000			0.000			0.750			0.500			0.625						
APP/DEPART	0	/	0	0	/	0	6	/	6	4	/	4	0						
PM	04:00 PM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	2	0	0	1	0	3	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	2	0	0	1	0	3	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	1	0	0	3	0	4	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	9	0	0	12	0	21	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%		0	0	0	0	0
APP/DEPART	0	/	0	0	/	0	9	/	9	12	/	12	0						
BEGIN PEAK HR	4:30 PM																		
VOLUMES	0	0	0	0	0	0	0	6	0	0	6	0	12						
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%							
PEAK HR FACTOR	0.000			0.000			0.750			0.750			1.000						
APP/DEPART	0	/	0	0	/	0	6	/	6	6	/	6	0						



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Thu, Sep 24, 20

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Huntington Park
Boyle
Slauson

PROJECT #: SC
LOCATION #: 2
CONTROL: SIGNAL

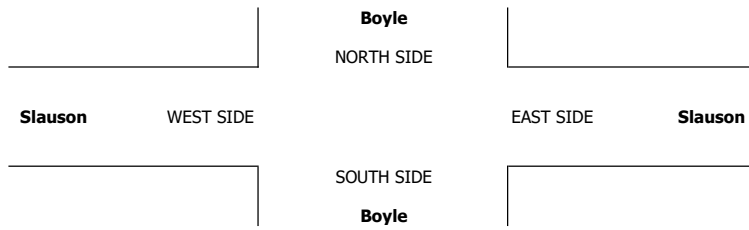
NOTES:	AM PM MD OTHER OTHER	▲ N E ► S ▼	
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Add U-Turns to Left Turns

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

AM	7:00 AM	36	143	39	7	49	11	24	132	8	29	129	13	620	0	0	0	0	0
	7:15 AM	39	164	34	8	39	13	14	178	11	37	138	24	699	0	0	0	0	0
	7:30 AM	38	144	46	7	26	4	15	157	10	30	150	10	637	0	0	0	0	0
	7:45 AM	35	173	45	5	33	9	14	155	13	33	165	13	693	0	0	0	0	0
	8:00 AM	27	140	49	9	26	11	14	115	14	32	126	20	583	0	0	0	0	0
	8:15 AM	27	135	44	8	27	8	17	144	14	34	117	14	589	0	0	0	0	0
	8:30 AM	31	132	45	9	37	6	11	133	18	44	145	13	624	0	0	0	0	0
	8:45 AM	19	92	38	13	36	5	17	104	16	39	148	14	541	0	0	1	0	1
	VOLUMES	252	1,123	340	66	273	67	126	1,118	104	278	1,118	121	4,986	0	0	1	0	1
	APPROACH %	15%	65%	20%	16%	67%	17%	9%	83%	8%	18%	74%	8%						
	APP/DEPART	1,715	/	1,369	406	/	655	1,348	/	1,524	1,517	/	1,438	0					
	BEGIN PEAK HR	7:00 AM																	
	VOLUMES	148	624	164	27	147	37	67	622	42	129	582	60	2,649					
	APPROACH %	16%	67%	18%	13%	70%	18%	9%	85%	6%	17%	75%	8%						
	PEAK HR FACTOR	0.925																	
	APP/DEPART	936	/	751	211	/	318	731	/	813	771	/	767	0					
PM	04:00 PM	22	62	32	20	209	12	16	169	28	51	164	9	794	0	0	0	0	0
	4:15 PM	18	61	35	15	170	16	6	175	43	77	213	14	843	0	0	0	0	0
	4:30 PM	33	98	53	12	199	14	12	166	36	64	185	9	881	0	0	1	0	1
	4:45 PM	24	60	47	13	215	7	15	166	48	71	207	15	888	0	0	0	0	0
	5:00 PM	34	78	32	19	205	8	12	151	49	69	177	10	844	0	0	0	0	0
	5:15 PM	20	47	39	20	210	10	5	174	37	60	217	14	853	0	0	0	0	0
	5:30 PM	16	66	25	12	203	10	7	165	45	62	170	9	790	0	0	0	0	0
	5:45 PM	28	47	33	14	189	2	6	189	42	61	181	9	801	0	0	0	0	0
	VOLUMES	195	519	296	125	1,600	79	79	1,355	328	515	1,514	89	6,694	0	0	1	0	1
	APPROACH %	19%	51%	29%	7%	89%	4%	4%	77%	19%	24%	71%	4%						
	APP/DEPART	1,010	/	686	1,804	/	2,443	1,762	/	1,776	2,118	/	1,789	0					
	BEGIN PEAK HR	4:30 PM																	
	VOLUMES	111	283	171	64	829	39	44	657	170	264	786	48	3,466					
	APPROACH %	20%	50%	30%	7%	89%	4%	5%	75%	20%	24%	72%	4%						
	PEAK HR FACTOR	0.768																	
	APP/DEPART	565	/	374	932	/	1,263	871	/	892	1,098	/	937	0					



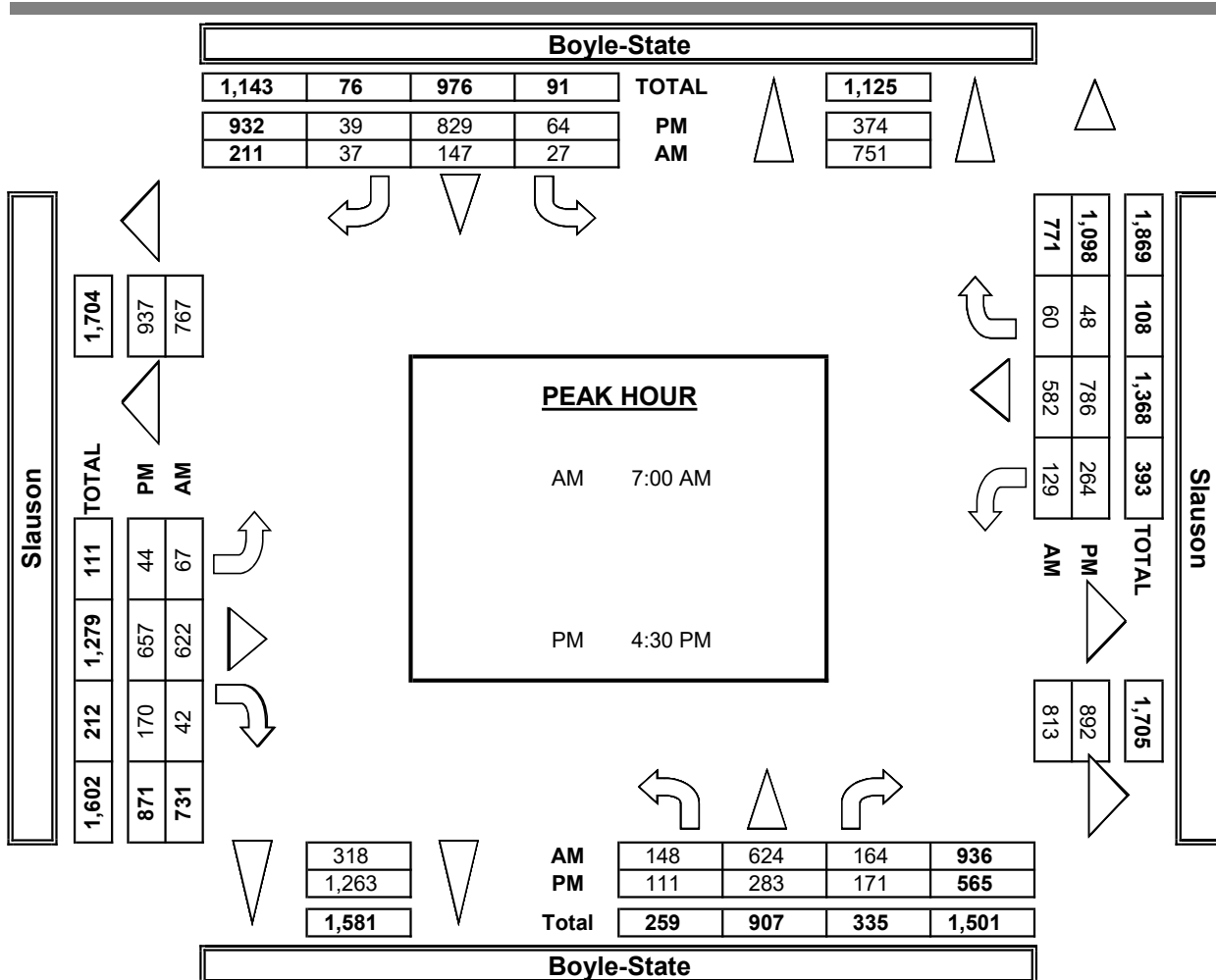
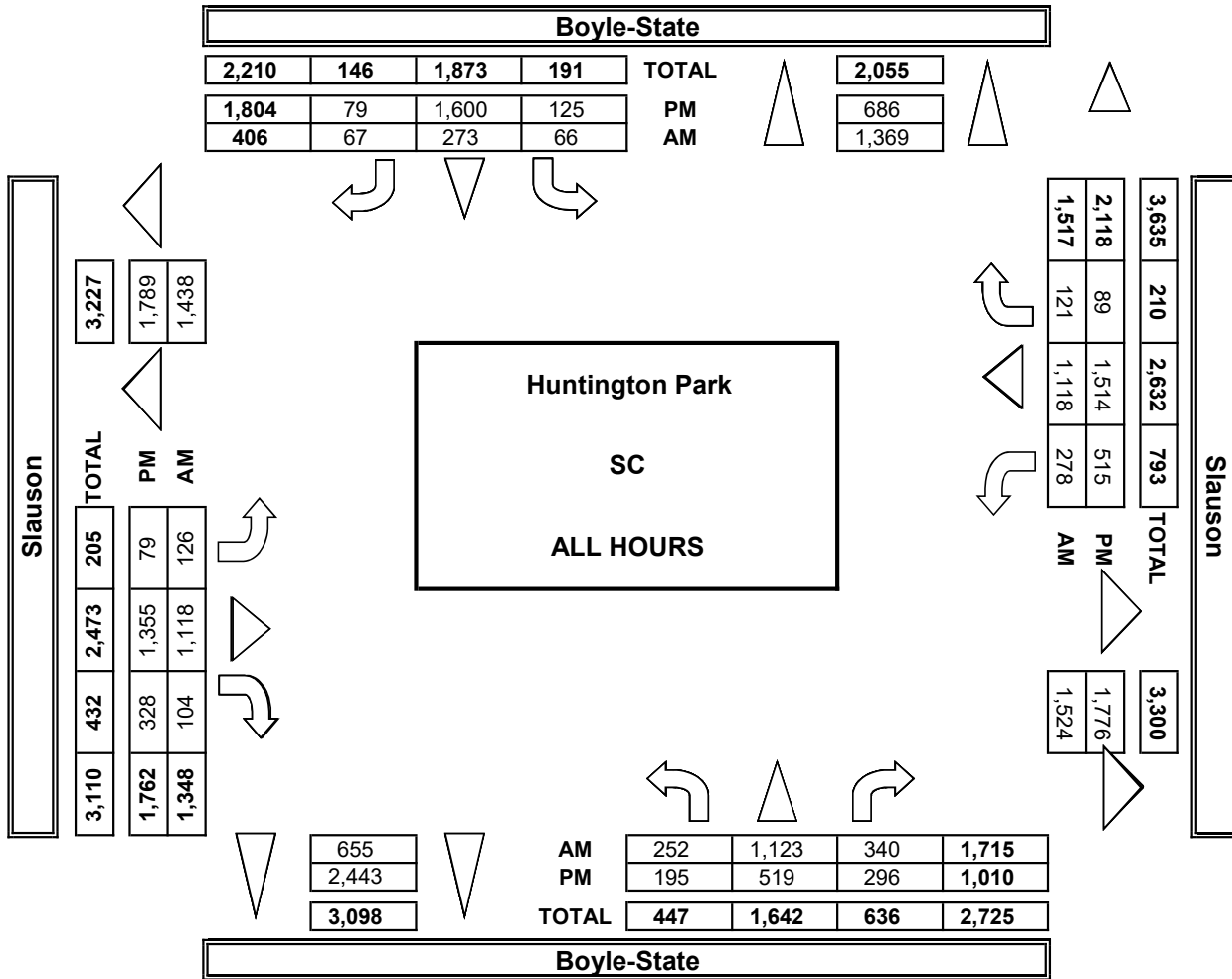
AM	7:00 AM	3	5	4	1	13
	7:15 AM	7	4	3	4	18
	7:30 AM	4	4	3	7	18
	7:45 AM	5	5	1	3	14
	8:00 AM	1	6	2	1	10
	8:15 AM	2	4	5	2	13
	8:30 AM	0	7	5	2	14
	8:45 AM	0	4	3	0	7
	TOTAL	22	39	26	20	107
PM	4:00 PM	3	6	1	4	14
	4:15 PM	2	3	5	0	10
	4:30 PM	0	9	5	0	14
	4:45 PM	1	7	5	2	15
	5:00 PM	1	7	0	1	9
	5:15 PM	2	1	2	0	5
	5:30 PM	2	7	5	1	15
	5:45 PM	3	1	1	0	5
	TOTAL	14	41	24	8	87

ALL PED AND BIKE				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
3	5	4	1	13
7	4	3	4	18
4	4	3	7	18
5	5	1	3	14
1	6	2	1	10
2	4	5	2	13
0	7	5	2	14
0	4	3	0	7
22	39	26	20	107
3	6	1	4	14
2	3	5	0	10
0	9	5	0	14
1	7	5	2	15
1	7	0	1	9
2	1	2	0	5
2	7	5	1	15
3	1	1	0	5
14	41	24	8	87

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
2	1	4	1	8
5	4	1	3	13
2	2	2	5	11
1	4	0	2	7
0	4	0	1	5
1	2	3	2	8
0	6	5	2	13
0	3	2	0	5
11	26	17	16	70
2	2	1	3	8
1	1	2	0	4
0	6	5	0	11
0	5	4	2	11
1	4	0	1	6
0	0	0	0	0
0	4	3	1	8
2	1	1	0	4
6	23	16	7	52

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
1	4	0	0	5
2	0	2	1	5
2	2	1	2	7
4	1	1	1	7
1	2	2	0	5
1	2	2	0	5
0	1	0	0	1
0	1	1	0	2
11	13	9	4	37
1	4	0	1	6
1	2	3	0	6
0	3	0	0	3
1	2	1	0	4
0	3	0	0	3
2	1	2	0	5
2	3	2	0	7
1	0	0	0	1
8	18	8	1	35

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 9/24/20 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Huntington Park Boyle Slauson	PROJECT #: LOCATION #: CONTROL:	SC 2 SIGNAL
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PCE Adjusted	NOTES:							AM PM MD OTHER OTHER	▲ N S ▼	◀ W E ▶
	Class	1	2	3	4	5	6			
	Factor	1	1.5	2	3	2	2			

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL	U-TURNS				
	Boyle			Boyle			Slauson			Slauson				NB	SB	EB	WB	TTL
	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0						

AM	7:00 AM	37	147	42	7	51	11	27	139	9	30	142	18	659						0
	7:15 AM	40	172	35	10	45	14	14	191	11	38	148	28	743						0
	7:30 AM	39	149	47	12	26	4	17	173	12	32	163	13	684						0
	7:45 AM	38	179	46	6	34	12	16	174	13	35	180	14	746						0
	8:00 AM	27	148	49	12	31	13	16	130	15	37	144	25	645						0
	8:15 AM	28	145	46	12	29	9	19	156	17	36	128	16	639						0
	8:30 AM	32	137	49	11	41	10	14	157	20	45	173	18	704						0
	8:45 AM	22	97	40	18	38	9	18	118	17	42	175	16	607						0
	VOLUMES	261	1,172	353	85	294	81	140	1,238	113	294	1,251	147	5,426	0	0	0	0	0	0
	APPROACH %	15%	66%	20%	18%	64%	18%	9%	83%	8%	17%	74%	9%							
APP/DEPART	1,785	/	1,458	460	/	701	1,490	/	1,675	1,691	/	1,592	0							
BEGIN PEAK HR	7:00 AM																			
VOLUMES	153	646	169	34	156	41	74	677	45	134	632	73	2,831							
APPROACH %	16%	67%	17%	15%	68%	18%	9%	85%	6%	16%	75%	9%								
PEAK HR FACTOR	0.922			0.833			0.920			0.915			0.949							
APP/DEPART	968	/	793	230	/	335	795	/	879	838	/	825	0							
PM	4:00 PM	23	63	36	23	219	14	19	180	29	55	171	13	844						0
	4:15 PM	18	64	37	17	175	19	6	182	46	79	226	19	885						0
	4:30 PM	36	102	55	12	209	14	13	175	38	66	201	10	928						0
	4:45 PM	25	65	50	13	220	7	16	175	50	75	216	23	932						0
	5:00 PM	35	88	33	22	207	8	13	161	52	70	182	11	879						0
	5:15 PM	22	49	41	22	214	10	7	180	37	63	225	15	884						0
	5:30 PM	18	68	28	12	208	10	7	172	46	62	175	9	812						0
	5:45 PM	30	49	36	14	193	3	6	205	43	61	196	11	845						0
	VOLUMES	206	546	314	134	1,643	84	86	1,430	338	529	1,590	110	7,008	0	0	0	0	0	0
	APPROACH %	19%	51%	29%	7%	88%	5%	5%	77%	18%	24%	71%	5%							
APP/DEPART	1,065	/	741	1,861	/	2,510	1,854	/	1,878	2,229	/	1,880	0							
BEGIN PEAK HR	4:15 PM																			
VOLUMES	114	318	175	63	810	48	47	693	185	288	824	62	3,624							
APPROACH %	19%	52%	29%	7%	88%	5%	5%	75%	20%	25%	70%	5%								
PEAK HR FACTOR	0.789			0.960			0.963			0.909			0.972							
APP/DEPART	606	/	427	920	/	1,282	924	/	930	1,174	/	985	0							



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
9/24/20
THURSDAY

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Huntington Park
Boyle
Slauson

PROJECT #: SC
LOCATION #: 2
CONTROL: SIGNAL

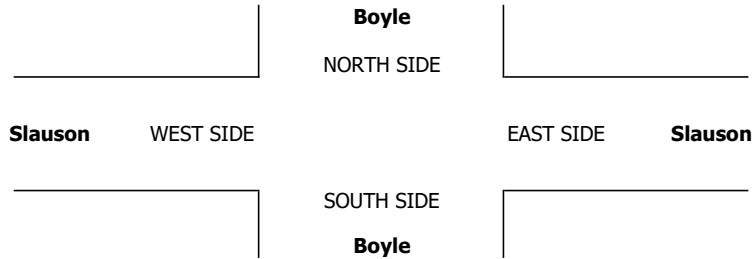
CLASS 1:	NOTES:				
PASSENGER VEHICLES		AM		▲	
		PM		N	
		MD	◀ W		E ▶
		OTHER		S	
		OTHER		▼	

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	1	2	0	1	2	0	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

AM	7:00 AM	35	136	36	7	48	11	21	126	7	28	118	9	582
	7:15 AM	37	155	33	5	33	12	14	165	11	36	126	19	646
	7:30 AM	37	138	44	4	26	4	14	139	9	27	133	8	583
	7:45 AM	32	165	44	4	31	6	13	138	13	32	147	11	636
	8:00 AM	27	132	49	7	20	10	13	98	13	27	110	15	521
	8:15 AM	26	121	43	5	24	7	15	128	11	30	100	11	521
	8:30 AM	30	127	41	6	31	3	9	109	15	43	115	8	537
	8:45 AM	17	84	35	7	33	3	16	88	15	35	121	11	465
	VOLUMES	241	1,058	325	45	246	56	115	991	94	258	970	92	4,491
	APPROACH %	15%	65%	20%	13%	71%	16%	10%	83%	8%	20%	73%	7%	
APP/DEPART	1,624	/	1,264	347	/	598	1,200	/	1,361	1,320	/	1,268	0	
BEGIN PEAK HR	7:00 AM													
VOLUMES	141	594	157	20	138	33	62	568	40	123	524	47	2,447	
APPROACH %	16%	67%	18%	10%	72%	17%	9%	85%	6%	18%	76%	7%		
PEAK HR FACTOR	0.925		0.723		0.882		0.913		0.947					
APP/DEPART	892	/	703	191	/	301	670	/	745	694	/	698	0	
PM	04:00 PM	21	61	28	17	198	11	13	156	27	47	157	7	743
	4:15 PM	18	56	32	13	164	14	6	164	41	74	201	10	793
	4:30 PM	31	95	52	12	190	14	10	157	35	62	168	8	834
	4:45 PM	22	55	42	13	208	7	14	155	45	67	196	10	834
	5:00 PM	32	71	31	17	202	8	11	142	47	68	169	8	806
	5:15 PM	17	44	36	19	206	10	4	166	37	57	207	12	815
	5:30 PM	13	64	23	12	197	10	7	158	44	62	164	9	763
	5:45 PM	25	46	31	14	185	1	6	172	41	61	167	7	756
	VOLUMES	179	492	275	117	1,550	75	71	1,270	317	498	1,429	71	6,344
	APPROACH %	19%	52%	29%	7%	89%	4%	4%	77%	19%	25%	72%	4%	
APP/DEPART	946	/	633	1,742	/	2,365	1,658	/	1,662	1,998	/	1,684	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	102	265	161	61	806	39	38	620	164	254	740	38	3,289	
APPROACH %	19%	50%	30%	7%	89%	4%	5%	75%	20%	25%	72%	4%		
PEAK HR FACTOR	0.742		0.964		0.961		0.935		0.986					
APP/DEPART	528	/	341	906	/	1,224	823	/	842	1,032	/	882	0	

0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
9/24/20
THURSDAY

LOCATION: Huntington Park
NORTH & SOUTH: Boyle
EAST & WEST: Slauson

PROJECT #: SC
LOCATION #: 2
CONTROL: SIGNAL

CLASS 2:	NOTES:	AM PM MD OTHER OTHER	← W E →	▲ N S ▼
2-AXLE WORK VEHICLES/ TRUCKS				

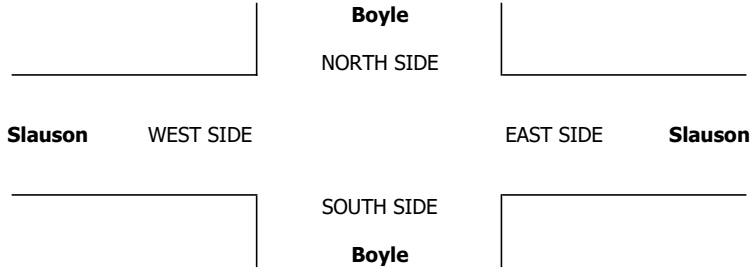
LANES:	NORTHBOUND <small>Boyle</small>			SOUTHBOUND <small>Boyle</small>			EASTBOUND <small>Slauson</small>			WESTBOUND <small>Slauson</small>			TOTAL
	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	1	6	2	0	0	0	2	2	1	0	3	2	19
	7:15 AM	2	5	1	3	2	1	0	8	0	1	9	4	36
	7:30 AM	1	5	2	1	0	0	0	11	0	3	13	1	37
	7:45 AM	2	6	1	1	2	2	0	8	0	0	12	2	36
	8:00 AM	0	4	0	1	4	0	0	12	1	3	9	3	37
	8:15 AM	1	12	0	1	3	0	1	12	2	4	14	2	52
	8:30 AM	1	3	2	3	5	1	1	14	2	0	20	2	54
	8:45 AM	1	7	3	4	2	0	1	10	0	2	17	3	50
	VOLUMES	9	48	11	14	18	4	5	77	6	13	97	19	321
	APPROACH %	13%	71%	16%	39%	50%	11%	6%	88%	7%	10%	75%	15%	
APP/DEPART	68	/	72	36	/	37	88	/	102	129	/	110	0	
BEGIN PEAK HR	8:00 AM													
VOLUMES	3	26	5	9	14	1	3	48	5	9	60	10	193	
APPROACH %	9%	76%	15%	38%	58%	4%	5%	86%	9%	11%	76%	13%		
PEAK HR FACTOR	0.654			0.667			0.824			0.898			0.894	
APP/DEPART	34	/	39	24	/	28	56	/	62	79	/	64	0	
PM	04:00 PM	1	1	2	2	8	0	2	8	1	2	4	0	31
	4:15 PM	0	4	2	1	5	1	0	10	1	3	5	2	34
	4:30 PM	1	1	0	0	5	0	2	5	0	1	10	1	26
	4:45 PM	2	3	4	0	5	0	1	6	3	3	6	1	34
	5:00 PM	2	2	1	1	2	0	1	4	1	1	7	2	24
	5:15 PM	2	3	3	0	2	0	0	4	0	2	7	2	25
	5:30 PM	3	1	1	0	5	0	0	4	1	0	5	0	20
	5:45 PM	2	0	1	0	2	1	0	10	1	0	6	1	24
	VOLUMES	13	15	14	4	34	2	6	51	8	12	50	9	218
	APPROACH %	31%	36%	33%	10%	85%	5%	9%	78%	12%	17%	70%	13%	
APP/DEPART	42	/	30	40	/	54	65	/	69	71	/	65	0	
BEGIN PEAK HR	4:00 PM													
VOLUMES	4	9	8	3	23	1	5	29	5	9	25	4	125	
APPROACH %	19%	43%	38%	11%	85%	4%	13%	74%	13%	24%	66%	11%		
PEAK HR FACTOR	0.583			0.675			0.886			0.792			0.919	
APP/DEPART	21	/	18	27	/	37	39	/	40	38	/	30	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 9/24/20 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Huntington Park Boyle Slauson	PROJECT #: SC LOCATION #: 2 CONTROL: SIGNAL
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CLASS 3: 3-AXLE TRUCKS	NOTES:	AM PM MD OTHER OTHER	◀ W E ▶	▲ N S ▼
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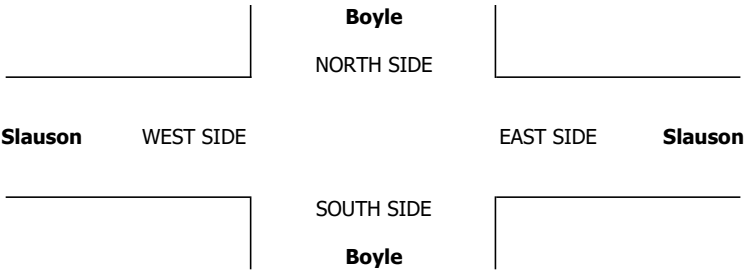
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Boyle NL	Boyle NT	Boyle NR	Boyle SL	Boyle ST	Boyle SR	Slauson EL	Slauson ET	Slauson ER	Slauson WL	Slauson WT	Slauson WR	
	1	2	0	1	2	0	1	2	0	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Boyle NL	Boyle NT	Boyle NR	Boyle SL	Boyle ST	Boyle SR	Slauson EL	Slauson ET	Slauson ER	Slauson WL	Slauson WT	Slauson WR	
AM													
7:00 AM	0	1	0	0	0	0	0	1	0	1	2	0	5
7:15 AM	0	1	0	0	2	0	0	0	0	0	1	0	4
7:30 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
7:45 AM	0	1	0	0	0	0	0	2	0	0	2	0	5
8:00 AM	0	2	0	0	1	0	0	0	0	1	1	1	6
8:15 AM	0	0	0	1	0	1	1	1	0	0	0	1	5
8:30 AM	0	0	1	0	0	1	0	1	1	1	1	2	8
8:45 AM	0	1	0	1	1	0	0	2	1	2	0	0	8
VOLUMES	0	6	1	2	4	2	1	9	2	5	8	4	44
APPROACH %	0%	86%	14%	25%	50%	25%	8%	75%	17%	29%	47%	24%	
APP/DEPART	7	/	11	8	/	11	12	/	12	17	/	10	0
BEGIN PEAK HR	8:00 AM												
VOLUMES	0	3	1	2	2	2	1	4	2	4	2	4	27
APPROACH %	0%	75%	25%	33%	33%	33%	14%	57%	29%	40%	20%	40%	
PEAK HR FACTOR	0.500			0.750			0.583			0.625			0.844
APP/DEPART	4	/	8	6	/	8	7	/	7	10	/	4	0
PM													
04:00 PM	0	0	1	0	0	0	0	1	0	0	0	0	2
4:15 PM	0	0	1	1	0	0	0	0	0	0	2	0	4
4:30 PM	0	1	0	0	1	0	0	1	0	1	2	0	6
4:45 PM	0	1	1	0	2	0	0	2	0	0	2	1	9
5:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	2	0	0	1	0	3
5:30 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
5:45 PM	1	0	0	0	0	0	0	1	0	0	1	1	4
VOLUMES	1	3	3	1	4	0	0	9	0	1	8	2	32
APPROACH %	14%	43%	43%	20%	80%	0%	0%	100%	0%	9%	73%	18%	
APP/DEPART	7	/	5	5	/	5	9	/	13	11	/	9	0
BEGIN PEAK HR	4:00 PM												
VOLUMES	0	2	3	1	3	0	0	4	0	1	6	1	21
APPROACH %	0%	40%	60%	25%	75%	0%	0%	100%	0%	13%	75%	13%	
PEAK HR FACTOR	0.625			0.500			0.500			0.667			0.583
APP/DEPART	5	/	3	4	/	4	4	/	8	8	/	6	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 9/24/20 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Huntington Park Boyle Slauson	PROJECT #: SC LOCATION #: 2 CONTROL: SIGNAL
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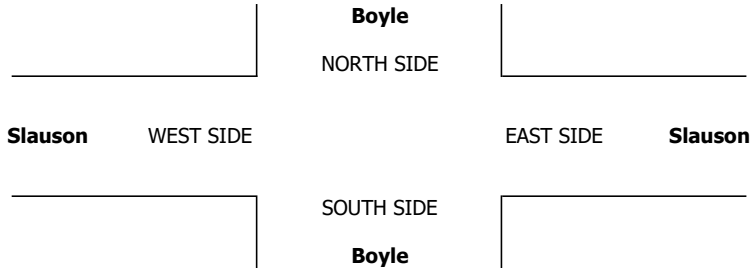
CLASS 4: 4 OR MORE AXLE TRUCKS	NOTES:	AM PM MD OTHER OTHER	▲ N S ▼	◀ W E ▶
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LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Boyle	Boyle	Boyle	Boyle	Boyle	Boyle	Slauson	Slauson	Slauson	Slauson	Slauson	Slauson	
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	1	2	0	1	2	0	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Boyle	Boyle	Boyle	Boyle	Boyle	Boyle	Slauson	Slauson	Slauson	Slauson	Slauson	Slauson	
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
AM													
7:00 AM	0	0	1	0	1	0	1	2	0	0	3	2	10
7:15 AM	0	1	0	0	1	0	0	4	0	0	2	1	9
7:30 AM	0	1	0	2	0	0	1	3	1	0	2	1	11
7:45 AM	1	1	0	0	0	1	1	6	0	1	3	0	14
8:00 AM	0	2	0	1	1	1	1	4	0	1	6	1	18
8:15 AM	0	2	1	1	0	0	0	2	1	0	1	0	8
8:30 AM	0	1	1	0	0	1	1	7	0	0	8	1	20
8:45 AM	1	0	0	1	0	2	0	3	0	0	8	0	15
VOLUMES	2	8	3	5	3	5	5	31	2	2	33	6	105
APPROACH %	15%	62%	23%	38%	23%	38%	13%	82%	5%	5%	80%	15%	
APP/DEPART	13	/	19	13	/	7	38	/	39	41	/	40	0
BEGIN PEAK HR	8:00 AM												
VOLUMES	1	5	2	3	1	4	2	16	1	1	23	2	61
APPROACH %	13%	63%	25%	38%	13%	50%	11%	84%	5%	4%	88%	8%	
PEAK HR FACTOR	0.667			0.667			0.594			0.722			0.763
APP/DEPART	8	/	9	8	/	3	19	/	21	26	/	28	0
PM													
04:00 PM	0	0	1	1	3	1	1	2	0	1	2	2	14
4:15 PM	0	0	0	0	1	1	0	1	1	0	3	2	9
4:30 PM	1	1	1	0	3	0	0	2	1	0	4	0	13
4:45 PM	0	1	0	0	0	0	0	1	0	1	1	3	7
5:00 PM	0	4	0	1	0	0	0	3	1	0	0	0	9
5:15 PM	0	0	0	1	1	0	1	0	0	1	1	0	5
5:30 PM	0	0	1	0	1	0	0	2	0	0	1	0	5
5:45 PM	0	1	1	0	1	0	0	4	0	0	4	0	11
VOLUMES	1	7	4	3	10	2	2	15	3	3	16	7	73
APPROACH %	8%	58%	33%	20%	67%	13%	10%	75%	15%	12%	62%	27%	
APP/DEPART	12	/	16	15	/	16	20	/	22	26	/	19	0
BEGIN PEAK HR	4:00 PM												
VOLUMES	1	2	2	1	7	2	1	6	2	2	10	7	43
APPROACH %	20%	40%	40%	10%	70%	20%	11%	67%	22%	11%	53%	37%	
PEAK HR FACTOR	0.417			0.500			0.750			0.950			0.768
APP/DEPART	5	/	10	10	/	11	9	/	9	19	/	13	0

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 9/24/20 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Huntington Park Boyle Slauson	PROJECT #: LOCATION #: CONTROL:	SC 2 SIGNAL
------------------------------	---	-------------------------------------	---------------------------------------	-------------------

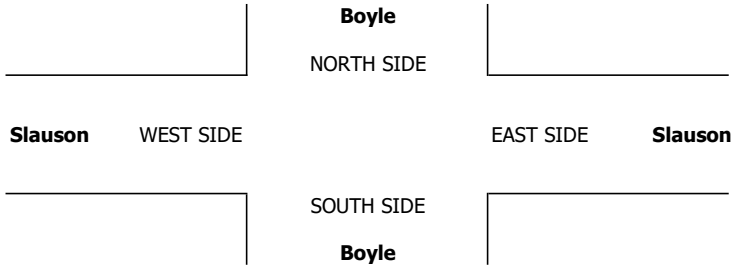
CLASS 6:	NOTES:	AM PM MD OTHER	◀ W S ▶	▲ N ▼	E ▶
BUSES					

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Boyle	Boyle	Boyle	Boyle	Boyle	Boyle	Slauson	Slauson	Slauson	Slauson	Slauson		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	1	2	0	1	2	0	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

AM	7:00 AM	0	0	0	0	0	0	1	0	0	3	0	4	0	0	0	0	
	7:15 AM	0	2	0	0	1	0	0	1	0	0	0	4	0	0	0	0	
	7:30 AM	0	0	0	0	0	0	0	2	0	0	1	3	0	0	0	0	
	7:45 AM	0	0	0	0	0	0	0	1	0	0	1	2	0	0	0	0	
	8:00 AM	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	
	8:15 AM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0
	8:30 AM	0	1	0	0	1	0	0	2	0	0	1	0	5	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0
	VOLUMES	0	3	0	0	2	0	0	10	0	0	10	0	25	0	0	0	0
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%		0	0	0	0
APP/DEPART	3	/	3	2	/	2	10	/	10	10	/	10	0	0	0	0	0	
BEGIN PEAK HR	7:00 AM																	
VOLUMES	0	2	0	0	1	0	0	5	0	0	5	0	13					
APPROACH %	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%						
PEAK HR FACTOR	0.250			0.250			0.625			0.417			0.813					
APP/DEPART	2	/	2	1	/	1	5	/	5	5	/	5	0	0	0	0	0	
PM	04:00 PM	0	0	0	0	0	0	2	0	1	1	0	4	0	0	0	0	
	4:15 PM	0	1	0	0	0	0	0	0	0	2	0	3	0	0	0	0	
	4:30 PM	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	
	4:45 PM	0	0	0	0	0	0	2	0	0	2	0	4	0	0	0	0	
	5:00 PM	0	1	0	0	0	0	1	0	0	1	0	3	0	0	0	0	
	5:15 PM	1	0	0	0	1	0	0	2	0	0	1	5	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	1	0	0	2	0	0	3	0	6	0	0	0	
	VOLUMES	1	2	0	0	2	0	0	10	0	1	11	0	27	0	0	0	0
	APPROACH %	33%	67%	0%	0%	100%	0%	0%	100%	0%	8%	92%	0%		0	0	0	0
APP/DEPART	3	/	2	2	/	3	10	/	10	12	/	12	0	0	0	0	0	
BEGIN PEAK HR	4:30 PM																	
VOLUMES	1	1	0	0	1	0	0	6	0	0	5	0	14					
APPROACH %	50%	50%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%						
PEAK HR FACTOR	0.500			0.250			0.750			0.625			0.700					
APP/DEPART	2	/	1	1	/	1	6	/	6	5	/	6	0	0	0	0	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



CITY TRAFFIC COUNTERS

www.ctcounters.com

File Name : Boyle_Slauson

Site Code : 00000000

Start Date : 2/22/2017

Page No : 1

Groups Printed- Unshifted

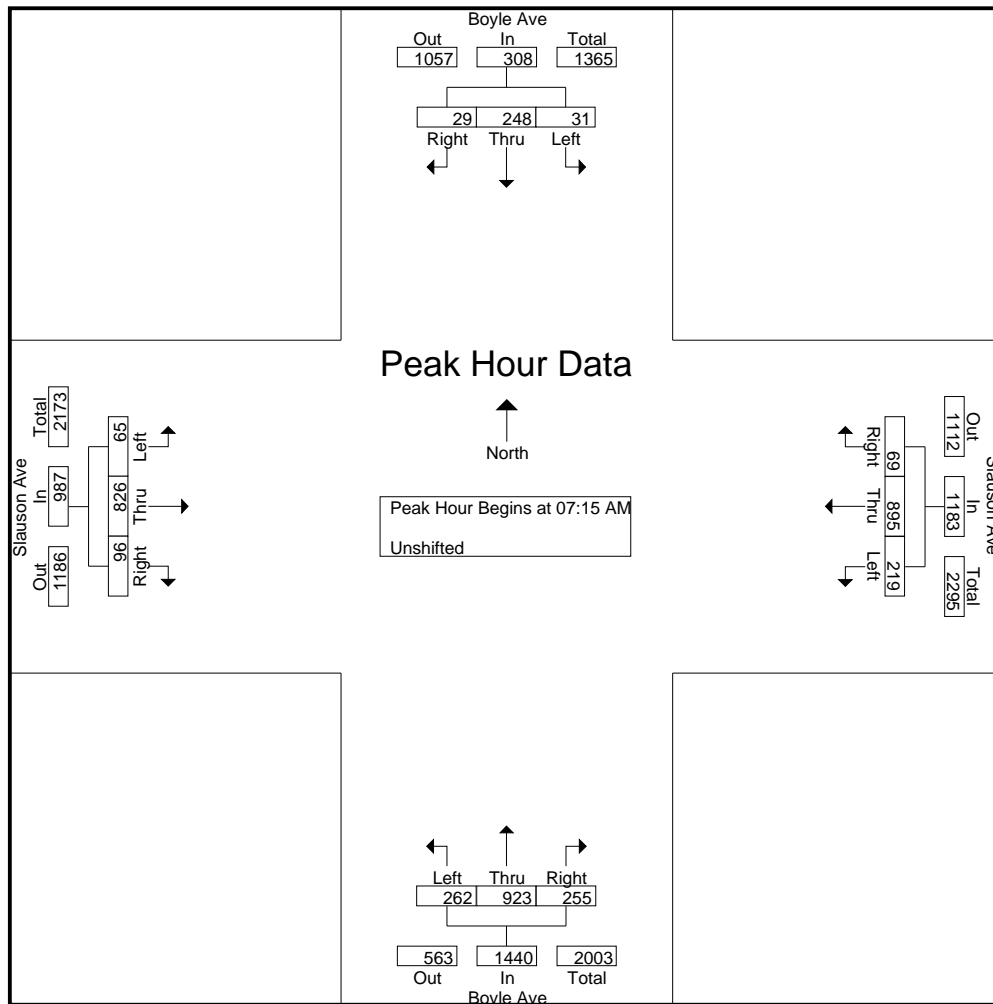
Start Time	Boyle Ave Southbound			Slauson Ave Westbound			Boyle Ave Northbound			Slauson Ave Eastbound			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	17	45	8	50	171	15	55	188	61	21	153	21	805
07:15 AM	7	66	5	53	244	13	56	216	56	15	219	16	966
07:30 AM	10	75	10	55	233	12	63	267	61	14	197	20	1017
07:45 AM	6	48	5	54	201	11	80	235	75	15	212	25	967
Total	40	234	28	212	849	51	254	906	253	65	781	82	3755
08:00 AM	8	59	9	57	217	33	63	205	63	21	198	35	968
08:15 AM	12	49	4	43	188	21	59	228	55	13	169	15	856
08:30 AM	7	31	7	52	195	19	52	186	55	19	162	12	797
08:45 AM	5	35	6	53	183	17	50	142	48	16	143	19	717
Total	32	174	26	205	783	90	224	761	221	69	672	81	3338
04:00 PM	16	168	20	58	222	10	38	86	45	9	192	37	901
04:15 PM	15	158	13	53	243	10	24	63	36	10	224	41	890
04:30 PM	10	194	15	66	164	10	30	85	44	4	214	40	876
04:45 PM	19	217	15	67	224	10	32	77	36	4	180	38	919
Total	60	737	63	244	853	40	124	311	161	27	810	156	3586
05:00 PM	21	216	14	60	239	11	19	71	49	7	204	56	967
05:15 PM	12	230	15	70	220	11	25	70	38	7	209	43	950
05:30 PM	10	198	13	66	228	8	56	59	50	11	212	46	957
05:45 PM	15	208	9	63	229	12	25	74	45	9	206	38	933
Total	58	852	51	259	916	42	125	274	182	34	831	183	3807
Grand Total	190	1997	168	920	3401	223	727	2252	817	195	3094	502	14486
Apprch %	8.1	84.8	7.1	20.2	74.8	4.9	19.2	59.3	21.5	5.1	81.6	13.2	
Total %	1.3	13.8	1.2	6.4	23.5	1.5	5	15.5	5.6	1.3	21.4	3.5	

CITY TRAFFIC COUNTERS

www.ctcounters.com

File Name : Boyle_Slauson
 Site Code : 00000000
 Start Date : 2/22/2017
 Page No : 2

Start Time	Boyle Ave Southbound				Slauson Ave Westbound				Boyle Ave Northbound				Slauson Ave Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	7	66	5	78	53	244	13	310	56	216	56	328	15	219	16	250	966
07:30 AM	10	75	10	95	55	233	12	300	63	267	61	391	14	197	20	231	1017
07:45 AM	6	48	5	59	54	201	11	266	80	235	75	390	15	212	25	252	967
08:00 AM	8	59	9	76	57	217	33	307	63	205	63	331	21	198	35	254	968
Total Volume	31	248	29	308	219	895	69	1183	262	923	255	1440	65	826	96	987	3918
% App. Total	10.1	80.5	9.4		18.5	75.7	5.8		18.2	64.1	17.7		6.6	83.7	9.7		
PHF	.775	.827	.725	.811	.961	.917	.523	.954	.819	.864	.850	.921	.774	.943	.686	.971	.963

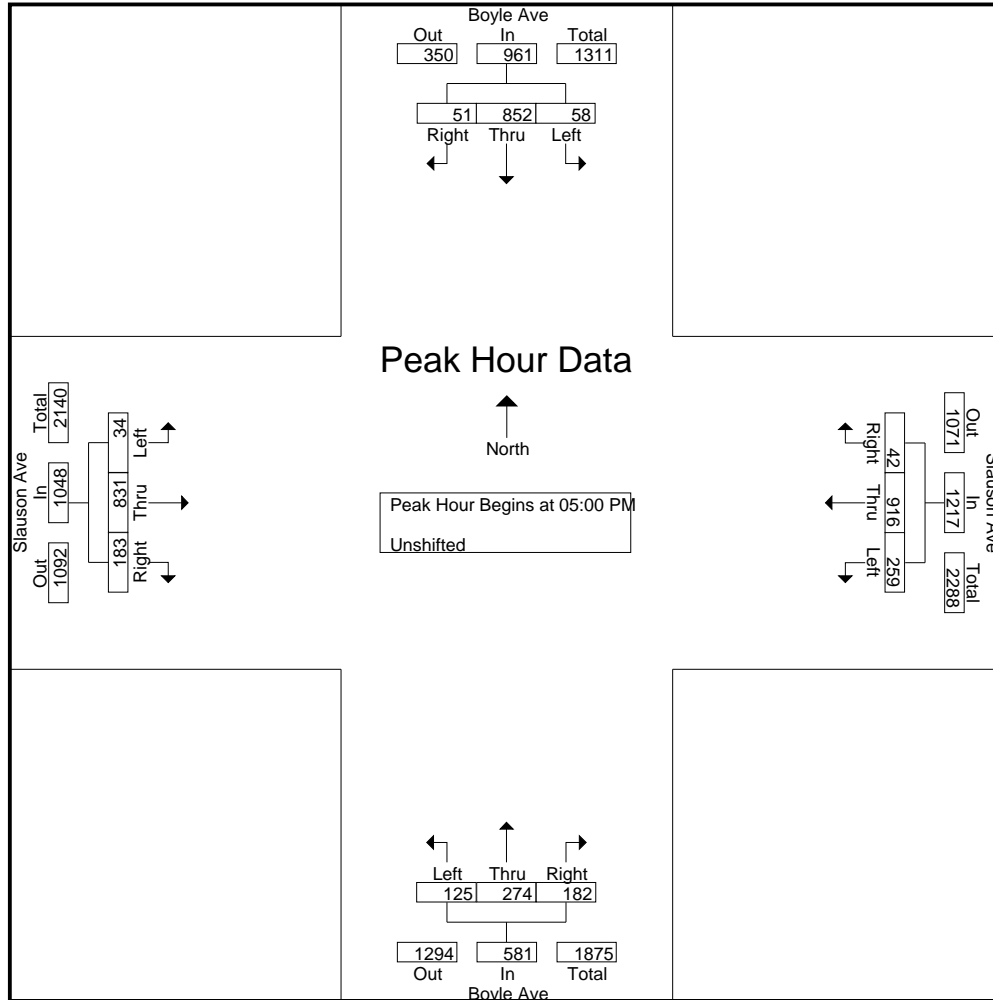


CITY TRAFFIC COUNTERS

www.ctcounters.com

File Name : Boyle_Slauson
 Site Code : 00000000
 Start Date : 2/22/2017
 Page No : 3

Start Time	Boyle Ave Southbound				Slauson Ave Westbound				Boyle Ave Northbound				Slauson Ave Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	21	216	14	251	60	239	11	310	19	71	49	139	7	204	56	267	967
05:15 PM	12	230	15	257	70	220	11	301	25	70	38	133	7	209	43	259	950
05:30 PM	10	198	13	221	66	228	8	302	56	59	50	165	11	212	46	269	957
05:45 PM	15	208	9	232	63	229	12	304	25	74	45	144	9	206	38	253	933
Total Volume	58	852	51	961	259	916	42	1217	125	274	182	581	34	831	183	1048	3807
% App. Total	6	88.7	5.3		21.3	75.3	3.5		21.5	47.2	31.3		3.2	79.3	17.5		
PHF	.690	.926	.850	.935	.925	.958	.875	.981	.558	.926	.910	.880	.773	.980	.817	.974	.984



Signal Length Timing Study

City: Huntington Park
Intersection: Bickett and Slauson
Date: 9/24/2020
Day: Thursday

7:00 am - 7:15 am

Cycle	Phase	Duration
1	ET/WT	0:08:10
	SL/SR	0:00:20
2	ET/WT	0:00:40
	SL/SR	0:00:30
3	ET/WT	0:03:15
	SL/SR	0:00:45
4	ET/WT	0:02:00

4:15 pm - 4:30 pm

Cycle	Phase	Duration
1	ET/WT	0:04:30
	SL/SR	0:00:20
2	ET/WT	0:01:40
	SL/SR	0:00:10
3	ET/WT	0:01:50
	SL/SR	0:00:10
4	ET/WT	0:01:50
	SL/SR	0:00:10
5	ET/WT	0:01:40
	SL/SR	0:00:10
6	ET/WT	0:00:50
	SL/SR	0:00:20
7	ET/WT	0:00:40
	SL/SR	0:00:10
8	ET/WT	0:01:50
	SL/SR	0:00:10
9	ET/WT	0:00:45

Prepared by AimTD LLC
cs@aimtd.com
 714.253.7888

Signal Length Timing Study

City: Huntington Park
Intersection: Boyle/State and Slauson
Date: 9/24/2020
Day: Thursday

7:00 am - 7:15 am

Cycle	Phase	Duration
1	NT/ST	0:00:25
	ET/WT	0:00:15
	NT	0:00:15
2	NT/ST	0:00:15
	ET/WT	0:01:00
3	NT/ST	0:00:35
	ET/WT	0:01:25
	NL/SL	0:00:15
4	NT/ST	0:00:40
	ET/WT	0:00:50
	NL/SL	0:00:15
	NT	0:00:10
5	NT/ST	0:00:30
	ET/WT	0:00:55
	NL/SL	0:00:15
	NT	0:00:10
6	NT/ST	0:00:35
	ET/WT	0:01:20
	NT/NL	0:00:20
7	NT/ST	0:00:30
	ET/EL	0:00:15
	ET/WT	0:00:40
	NT/NL	0:00:20
8	NT/ST	0:00:20
	EL/WL	0:00:10
	ET/WT	0:01:00
	NT/NL	0:00:15
9	NT/ST	0:00:45
	EL/WL	0:00:15
	ET/WT	0:01:10

4:30 pm - 4:45 pm

Cycle	Phase	Duration
1	ET/WT	0:01:00
	NL/SL	0:00:15
	NT/ST	0:00:30
	EL/WL	0:00:15
	WT/WL	0:00:10
2	ET/WT	0:00:50
	NT/ST	0:00:50
	WL/WT	0:00:20
3	ET/WT	0:00:55
	NL/SL	0:00:10
	NT/ST	0:00:50
	EL/WL	0:00:15
4	ET/WL	0:00:45
	NL/SL	0:00:15
	NT/ST	0:00:40
	EL/WL	0:00:15
5	ET/WT	0:00:50
	NL/SL	0:00:15
	NT/ST	0:00:40
	WL/WT	0:00:20
6	ET/WT	0:00:45
	NT/NL	0:00:15
	NT/ST	0:00:45
	WL/WT	0:00:15
7	ET/WT	0:00:45
	NL/NT	0:00:15
	NT/ST	0:00:40
	EL/WL	0:00:15
8	ET/WT	0:00:50
	NL/SL	0:00:15
	NT/ST	0:00:40

APPENDIX B

Synchro LOS and Queuing Worksheets

HCM 6th Signalized Intersection Summary
 1: Slauson Avenue & Bickett Street

Timing Plan: AM PEAK HOUR

10/07/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	91	1184	1273	109	46	51
Future Volume (veh/h)	91	1184	1273	109	46	51
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.96	1.00	0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1826	1811	1826	1826	1900	1811
Adj Flow Rate, veh/h	98	1273	1369	117	49	55
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	6	5	5	0	6
Cap, veh/h	219	2226	2085	177	194	217
Arrive On Green	0.65	0.65	0.65	0.65	0.25	0.25
Sat Flow, veh/h	346	3532	3315	274	789	885
Grp Volume(v), veh/h	98	1273	733	753	105	0
Grp Sat Flow(s),veh/h/ln	346	1721	1735	1764	1690	0
Q Serve(g_s), s	20.3	17.3	21.6	22.0	4.2	0.0
Cycle Q Clear(g_c), s	42.3	17.3	21.6	22.0	4.2	0.0
Prop In Lane	1.00			0.16	0.47	0.52
Lane Grp Cap(c), veh/h	219	2226	1122	1141	415	0
V/C Ratio(X)	0.45	0.57	0.65	0.66	0.25	0.00
Avail Cap(c_a), veh/h	246	2493	1257	1278	415	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.1	8.3	9.0	9.1	25.3	0.0
Incr Delay (d2), s/veh	1.4	0.3	1.0	1.1	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	5.2	6.8	7.0	1.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.5	8.5	10.1	10.2	26.8	0.0
LnGrp LOS	C	A	B	B	C	A
Approach Vol, veh/h		1371	1486		105	
Approach Delay, s/veh		9.6	10.1		26.8	
Approach LOS		A	B		C	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				58.5	25.0	58.5
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				60.5	20.5	60.5
Max Q Clear Time (g_c+I1), s				44.3	6.2	24.0
Green Ext Time (p_c), s				9.7	0.2	14.2

Intersection Summary

HCM 6th Ctrl Delay	10.5
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑		↘	
Traffic Vol, veh/h	0	1260	1334	0	9	9
Future Vol, veh/h	0	1260	1334	0	9	9
Conflicting Peds, #/hr	19	0	0	19	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	1	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	6	5	0	0	0
Mvmt Flow	0	1370	1450	0	10	10

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1469	0	-	0	2154 744
Stage 1	-	-	-	-	1469 -
Stage 2	-	-	-	-	685 -
Critical Hdwy	4.1	-	-	-	6.8 6.9
Critical Hdwy Stg 1	-	-	-	-	5.8 -
Critical Hdwy Stg 2	-	-	-	-	5.8 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	465	-	-	0	42 362
Stage 1	-	-	-	0	181 -
Stage 2	-	-	-	0	467 -
Platoon blocked, %		-	-		
Mov Cap-1 Maneuver	457	-	-	-	40 355
Mov Cap-2 Maneuver	-	-	-	-	159 -
Stage 1	-	-	-	-	178 -
Stage 2	-	-	-	-	459 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	23
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1
Capacity (veh/h)	457	-	-	220
HCM Lane V/C Ratio	-	-	-	0.089
HCM Control Delay (s)	0	-	-	23
HCM Lane LOS	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	0.3

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑		↘	
Traffic Vol, veh/h	33	1236	1315	18	27	18
Future Vol, veh/h	33	1236	1315	18	27	18
Conflicting Peds, #/hr	19	0	0	19	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	1	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	6	5	0	0	0
Mvmt Flow	36	1343	1429	20	29	20

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1468	0	-	0	2202 744
Stage 1	-	-	-	-	1458 -
Stage 2	-	-	-	-	744 -
Critical Hdwy	4.1	-	-	-	6.8 6.9
Critical Hdwy Stg 1	-	-	-	-	5.8 -
Critical Hdwy Stg 2	-	-	-	-	5.8 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	466	-	-	-	39 362
Stage 1	-	-	-	-	184 -
Stage 2	-	-	-	-	436 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	458	-	-	-	35 355
Mov Cap-2 Maneuver	-	-	-	-	148 -
Stage 1	-	-	-	-	166 -
Stage 2	-	-	-	-	428 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	29.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	458	-	-	-	193
HCM Lane V/C Ratio	0.078	-	-	-	0.253
HCM Control Delay (s)	13.5	-	-	-	29.9
HCM Lane LOS	B	-	-	-	D
HCM 95th %tile Q(veh)	0.3	-	-	-	1

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1264	1320	20	0	14
Future Vol, veh/h	0	1264	1320	20	0	14
Conflicting Peds, #/hr	19	0	0	19	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	1	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	6	5	0	0	0
Mvmt Flow	0	1374	1435	22	0	15

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1476	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	462	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	454	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	454	-	-	-	353
HCM Lane V/C Ratio	-	-	-	-	0.043
HCM Control Delay (s)	0	-	-	-	15.7
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	65	81	172	80	3
Future Vol, veh/h	3	65	81	172	80	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	6	8	0
Mvmt Flow	3	71	88	187	87	3

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	452	89	90	0	0
Stage 1	89	-	-	-	-
Stage 2	363	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	569	975	1518	-	-
Stage 1	940	-	-	-	-
Stage 2	708	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	532	975	1518	-	-
Mov Cap-2 Maneuver	532	-	-	-	-
Stage 1	879	-	-	-	-
Stage 2	708	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	2.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1518	-	940	-	-
HCM Lane V/C Ratio	0.058	-	0.079	-	-
HCM Control Delay (s)	7.5	0	9.2	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	-	-

Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	41	41	134	42	5
Future Vol, veh/h	5	41	41	134	42	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	9	16	3	7	0
Mvmt Flow	5	45	45	146	46	5

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	285	49	51	0	0
Stage 1	49	-	-	-	-
Stage 2	236	-	-	-	-
Critical Hdwy	6.4	6.29	4.26	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.381	2.344	-	-
Pot Cap-1 Maneuver	710	1000	1470	-	-
Stage 1	979	-	-	-	-
Stage 2	808	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	687	1000	1470	-	-
Mov Cap-2 Maneuver	687	-	-	-	-
Stage 1	947	-	-	-	-
Stage 2	808	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	1.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1470	-	953	-	-
HCM Lane V/C Ratio	0.03	-	0.052	-	-
HCM Control Delay (s)	7.5	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

HCM 6th Signalized Intersection Summary
 1: Slauson Avenue & Bickett Street

Timing Plan: PM PEAK HOUR

10/07/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	42	1153	1200	35	70	54
Future Volume (veh/h)	42	1153	1200	35	70	54
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1752	1841	1841	1900	1885	1885
Adj Flow Rate, veh/h	43	1177	1224	36	71	55
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	10	4	4	0	1	1
Cap, veh/h	218	1860	1844	54	322	249
Arrive On Green	0.53	0.53	0.53	0.53	0.34	0.34
Sat Flow, veh/h	412	3589	3558	102	950	736
Grp Volume(v), veh/h	43	1177	617	643	127	0
Grp Sat Flow(s),veh/h/ln	412	1749	1749	1819	1700	0
Q Serve(g_s), s	5.9	16.5	17.7	17.8	3.7	0.0
Cycle Q Clear(g_c), s	23.6	16.5	17.7	17.8	3.7	0.0
Prop In Lane	1.00			0.06	0.56	0.43
Lane Grp Cap(c), veh/h	218	1860	930	968	575	0
V/C Ratio(X)	0.20	0.63	0.66	0.66	0.22	0.00
Avail Cap(c_a), veh/h	340	2896	1448	1507	575	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.3	11.5	11.8	11.8	16.4	0.0
Incr Delay (d2), s/veh	0.4	0.4	0.8	0.8	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	5.3	5.9	6.1	1.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.7	11.8	12.6	12.6	17.3	0.0
LnGrp LOS	C	B	B	B	B	A
Approach Vol, veh/h		1220	1260		127	
Approach Delay, s/veh		12.1	12.6		17.3	
Approach LOS		B	B		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				41.4	28.0	41.4
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				57.5	23.5	57.5
Max Q Clear Time (g_c+I1), s				25.6	5.7	19.8
Green Ext Time (p_c), s				11.3	0.3	10.8

Intersection Summary

HCM 6th Ctrl Delay	12.6
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑		↘	
Traffic Vol, veh/h	0	1221	1253	0	8	8
Future Vol, veh/h	0	1221	1253	0	8	8
Conflicting Peds, #/hr	2	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	1	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	4	3	0	0	0
Mvmt Flow	0	1327	1362	0	9	9

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1364	0	-	0	2028 683
Stage 1	-	-	-	-	1364 -
Stage 2	-	-	-	-	664 -
Critical Hdwy	4.1	-	-	-	6.8 6.9
Critical Hdwy Stg 1	-	-	-	-	5.8 -
Critical Hdwy Stg 2	-	-	-	-	5.8 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	510	-	-	0	51 396
Stage 1	-	-	-	0	206 -
Stage 2	-	-	-	0	479 -
Platoon blocked, %		-	-		
Mov Cap-1 Maneuver	509	-	-	-	51 395
Mov Cap-2 Maneuver	-	-	-	-	183 -
Stage 1	-	-	-	-	206 -
Stage 2	-	-	-	-	478 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	20.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1
Capacity (veh/h)	509	-	-	250
HCM Lane V/C Ratio	-	-	-	0.07
HCM Control Delay (s)	0	-	-	20.5
HCM Lane LOS	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	0.2

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	27	1202	1240	15	21	13
Future Vol, veh/h	27	1202	1240	15	21	13
Conflicting Peds, #/hr	2	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	1	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	4	3	0	0	0
Mvmt Flow	29	1307	1348	16	23	14

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1366	0	-	0	2070 684
Stage 1	-	-	-	-	1358 -
Stage 2	-	-	-	-	712 -
Critical Hdwy	4.1	-	-	-	6.8 6.9
Critical Hdwy Stg 1	-	-	-	-	5.8 -
Critical Hdwy Stg 2	-	-	-	-	5.8 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	509	-	-	-	48 396
Stage 1	-	-	-	-	208 -
Stage 2	-	-	-	-	453 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	508	-	-	-	45 395
Mov Cap-2 Maneuver	-	-	-	-	173 -
Stage 1	-	-	-	-	196 -
Stage 2	-	-	-	-	452 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	24.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	508	-	-	-	220
HCM Lane V/C Ratio	0.058	-	-	-	0.168
HCM Control Delay (s)	12.5	-	-	-	24.6
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.6

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1223	1244	16	0	12
Future Vol, veh/h	0	1223	1244	16	0	12
Conflicting Peds, #/hr	2	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	1	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	4	3	0	0	0
Mvmt Flow	0	1329	1352	17	0	13

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1371	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	507	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	506	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	506	-	-	-	393
HCM Lane V/C Ratio	-	-	-	-	0.033
HCM Control Delay (s)	0	-	-	-	14.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	54	64	74	123	3
Future Vol, veh/h	3	54	64	74	123	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	9	4	0
Mvmt Flow	3	59	70	80	134	3

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	356	136	137	0	0
Stage 1	136	-	-	-	-
Stage 2	220	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	646	918	1459	-	-
Stage 1	895	-	-	-	-
Stage 2	821	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	614	918	1459	-	-
Mov Cap-2 Maneuver	614	-	-	-	-
Stage 1	850	-	-	-	-
Stage 2	821	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	3.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1459	-	895	-	-
HCM Lane V/C Ratio	0.048	-	0.069	-	-
HCM Control Delay (s)	7.6	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	30	34	43	96	4
Future Vol, veh/h	3	30	34	43	96	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	9	8	9	2	0
Mvmt Flow	3	33	37	47	104	4

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	227	106	108	0	0
Stage 1	106	-	-	-	-
Stage 2	121	-	-	-	-
Critical Hdwy	6.4	6.29	4.18	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.381	2.272	-	-
Pot Cap-1 Maneuver	766	930	1446	-	-
Stage 1	923	-	-	-	-
Stage 2	909	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	746	930	1446	-	-
Mov Cap-2 Maneuver	746	-	-	-	-
Stage 1	899	-	-	-	-
Stage 2	909	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	3.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1446	-	910	-	-
HCM Lane V/C Ratio	0.026	-	0.039	-	-
HCM Control Delay (s)	7.6	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection: 1: Slauson Avenue & Bickett Street

Movement	EB	EB	EB	WB	WB	SB
Directions Served	L	T	T	T	TR	LR
Maximum Queue (ft)	125	240	236	348	367	157
Average Queue (ft)	88	196	185	172	189	70
95th Queue (ft)	156	247	249	335	358	134
Link Distance (ft)		126	126	938	938	204
Upstream Blk Time (%)	3	51	48			0
Queuing Penalty (veh)	0	320	296			0
Storage Bay Dist (ft)	100					
Storage Blk Time (%)	6	53				
Queuing Penalty (veh)	38	48				

Intersection: 3: Slauson Avenue & Drive-Thru Exit

Movement	EB	EB	SB
Directions Served	T	T	LR
Maximum Queue (ft)	355	327	132
Average Queue (ft)	160	136	53
95th Queue (ft)	421	392	140
Link Distance (ft)	313	313	155
Upstream Blk Time (%)	25	21	13
Queuing Penalty (veh)	0	0	0
Storage Bay Dist (ft)			
Storage Blk Time (%)	1		
Queuing Penalty (veh)	0		

Intersection: 4: Slauson Avenue & West Driveway

Movement	EB	EB	EB	WB	WB	SB
Directions Served	L	T	T	T	TR	LR
Maximum Queue (ft)	30	181	147	30	36	195
Average Queue (ft)	17	101	68	2	3	148
95th Queue (ft)	39	215	193	21	22	263
Link Distance (ft)		73	73	108	108	197
Upstream Blk Time (%)		39	30		0	56
Queuing Penalty (veh)		244	185		0	0
Storage Bay Dist (ft)	1					
Storage Blk Time (%)	7	2				
Queuing Penalty (veh)	44	1				

Intersection: 5: Slauson Avenue & East Driveway

Movement	EB	EB	WB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	219	204	11	48
Average Queue (ft)	136	116	0	13
95th Queue (ft)	268	250	8	39
Link Distance (ft)	108	108	126	184
Upstream Blk Time (%)	42	38		
Queuing Penalty (veh)	261	234		
Storage Bay Dist (ft)				
Storage Blk Time (%)	0			
Queuing Penalty (veh)	0			

Intersection: 6: Bickett Street & South Driveway

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	56	53
Average Queue (ft)	30	7
95th Queue (ft)	50	32
Link Distance (ft)	140	204
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Bickett Street & North Driveway

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	77	37
Average Queue (ft)	27	2
95th Queue (ft)	58	18
Link Distance (ft)	121	129
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 1670

Intersection: 1: Slauson Avenue & Bickett Street

Movement	EB	EB	EB	WB	WB	SB
Directions Served	L	T	T	T	TR	LR
Maximum Queue (ft)	125	231	222	352	381	182
Average Queue (ft)	46	177	167	159	173	77
95th Queue (ft)	124	243	247	326	344	150
Link Distance (ft)		126	126	938	938	204
Upstream Blk Time (%)	0	44	44			0
Queuing Penalty (veh)	0	266	262			1
Storage Bay Dist (ft)	100					
Storage Blk Time (%)	0	48				
Queuing Penalty (veh)	0	20				

Intersection: 3: Slauson Avenue & Drive-Thru Exit

Movement	EB	EB	SB
Directions Served	T	T	LR
Maximum Queue (ft)	296	250	119
Average Queue (ft)	115	97	35
95th Queue (ft)	348	320	98
Link Distance (ft)	313	313	155
Upstream Blk Time (%)	11	10	2
Queuing Penalty (veh)	0	0	0
Storage Bay Dist (ft)			
Storage Blk Time (%)	2		
Queuing Penalty (veh)	0		

Intersection: 4: Slauson Avenue & West Driveway

Movement	EB	EB	EB	WB	WB	SB
Directions Served	L	T	T	T	TR	LR
Maximum Queue (ft)	30	179	141	75	102	200
Average Queue (ft)	13	86	58	4	5	102
95th Queue (ft)	36	204	174	38	44	229
Link Distance (ft)		73	73	108	108	197
Upstream Blk Time (%)		34	25	0	0	29
Queuing Penalty (veh)		202	150	1	1	0
Storage Bay Dist (ft)	1					
Storage Blk Time (%)	5	2				
Queuing Penalty (veh)	28	1				

Intersection: 5: Slauson Avenue & East Driveway

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	184	177	6	10	35
Average Queue (ft)	106	99	0	0	11
95th Queue (ft)	251	242	5	7	35
Link Distance (ft)	108	108	126	126	184
Upstream Blk Time (%)	37	34			
Queuing Penalty (veh)	220	204			
Storage Bay Dist (ft)					
Storage Blk Time (%)	0				
Queuing Penalty (veh)	0				

Intersection: 6: Bickett Street & South Driveway

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	63	41	23
Average Queue (ft)	29	7	1
95th Queue (ft)	54	31	10
Link Distance (ft)	140	204	129
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Bickett Street & North Driveway

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	59	39
Average Queue (ft)	23	4
95th Queue (ft)	51	23
Link Distance (ft)	121	129
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 1355