REVISED FOCUSED TRAFFIC ANALYSIS
PALM & PEPPER COMMERCIAL PROJECT
CITY OF ALHAMBRA

DECEMBER 12, 2023

Prepared For:
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JC28074

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1. INTRODUCTION

KOA Corporation has prepared this Focused Traffic Analysis (FTA) to evaluate the potential transportation impacts of the proposed Palm & Pepper commercial project (the "Project"), a proposed commercial center comprised of two fast-food restaurants with drive-through windows and one coffee shop with drive-through window. The following report contains the original FTA prepared in December 2022, while all updates and revisions are described in the Responses to Traffic Comments technical memoranda provided in Appendices I and J of the report.

The fast-food restaurants have a combined gross floor area of approximately 5,781 square feet and the coffee shop has a gross floor area of approximately 1,172 square feet. The Project site is currently occupied by commercial and industrial uses, most of which are not presently active. Only a 10,000 square-foot warehouse at 135 S. Raymond Avenue is currently in operation. All existing buildings would be removed to accommodate the proposed Project.

The Project site is located at 126, 132, and146 S. Palm Avenue, 127 S. Raymond Avenue, and 2018 Teagarden Lane in the City of Alhambra (the "City"). The site is bounded by Palm Avenue to the west, Pepper Street to the south, Raymond Avenue to the east, and Teagarden Lane (partially vacated alley) and commercial uses to the north. Within the immediate Project vicinity, commercial land uses are located along Palm Avenue and Commonwealth Avenue north and west of the Project site, while residential uses are located to the east. Industrial uses are located along Palm Avenue and Raymond Avenue south of Commonwealth Avenue. Project parking will be accommodated on site within a surface parking lot and separate employee parking lot. Project vehicular access/egress will be provided via six driveways: three intersecting the east side of Palm Avenue, two intersecting the west side of Raymond Avenue, and one intersecting the north side of Pepper Street. The North Driveway along Palm Avenue will provide access to an employee parking area, the North Driveway along Raymond Avenue serves only the trash enclosure for the coffee shop, and the four remaining driveways will provide general vehicular access to the main site. The location of the Project site is shown in Figure 1, Project Site Vicinity and Study Intersections.

This analysis was prepared in accordance with the assumptions, methodologies, and procedures outlined in the *City of Alhambra Transportation Study Guidelines for Vehicle Miles Traveled and Level of Service Assessment* (the "TS Guidelines") adopted in October 2020. The scope of the analysis and basic assumptions contained in this report were determined by the City Transportation Consultant in a Traffic Scoping memorandum dated April 6, 2022. The Traffic Scoping memorandum is included in Appendix A of this report.

The scoping document outlined the proposed detailed analysis of potential transportation impacts resulting from development of the Project. The scope was modified per discussions with the City Transportation Consultant after April 6, 2022, based on conditions in the field during the analysis data collection phase. However, this FTA largely follows the outline contained in Appendix A. The approved scope of work includes an evaluation of level-of-service (LOS) conditions at intersections in the Project vicinity, vehicle miles traveled (VMT) generated by the proposed Project uses, parking provided on the Project site, on-site and site-adjacent circulation, queuing and operational conditions at the proposed Palm Avenue driveways, sight distance considerations for all proposed driveways, and anticipated vehicle queuing along the proposed drive-through window lanes. The Project study area for the LOS analysis contains the following two intersections, which are also depicted in Figure 1:

Study Intersections

1. Palm Avenue & Commonwealth Avenue
2. Raymond Avenue & Commonwealth Avenue

These locations are key intersections along the primary access routes to and from the site and are those locations expected to be most directly impacted by Project traffic. The intersection of Date Avenue & Commonwealth Avenue was also considered for evaluation, but ultimately was not analyzed as part of this report due to the temporary partial closure of the Costco driveway forming the north leg of the intersection. This report presents the conclusions of the various analyses listed above as they relate to the development of the Project. As part of the LOS and Palm Avenue driveway access analyses, the following traffic conditions have been analyzed:

- Existing (2022) traffic volumes
- Opening Year (2024) Without Project traffic volumes
- Opening Year (2024) With Project traffic volumes

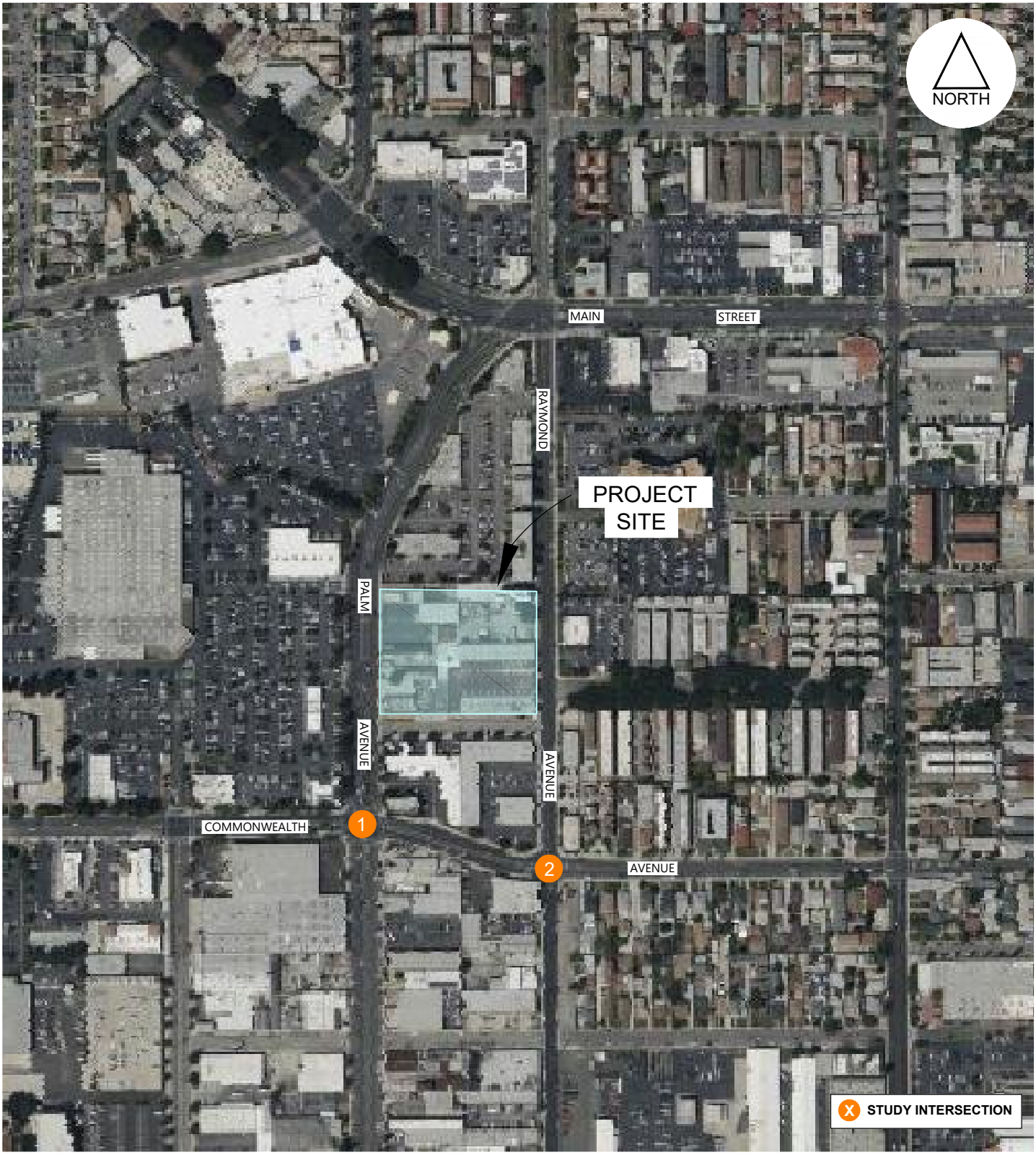

FIGURE 1

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PROJECT SITE VICINITY AND STUDY INTERSECTIONS

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2. PROJECT DESCRIPTION

Under consideration is the Palm & Pepper commercial project (the "Project") to be located on four parcels totaling approximately 2.679 acres between Palm Avenue and Raymond Avenue, immediately north of Pepper Street, in the City. The site is bounded by Palm Avenue to the west, Pepper Street to the south, Raymond Avenue to the east, and Teagarden Lane (partially vacated alley) and commercial uses to the north. In the Project vicinity, commercial land uses are located along Palm Avenue and Commonwealth Avenue north and west of the site, residential uses are located east of the site, and industrial uses are located south of Commonwealth Avenue along Palm Avenue and Raymond Avenue.

The site is currently occupied by industrial and commercial uses, of which only a 10,000 square-foot warehouse at 135 S. Raymond Avenue is currently active. A single driveway intersecting the north side of Pepper Street provides primary access to the existing warehouse. The Project's proposed land uses are two fast-food restaurants with drive-through windows and one coffee shop with a drive-through window and no indoor seating, which have a combined gross floor area of approximately 6,953 square feet. The fast-food restaurants proposed include a Panda Express (2,600 square feet) and Raising Cane's (3,181 square feet), while the 1,172 square-foot coffee shop is proposed to be a Starbucks.

As shown in Figure 2, Conceptual Project Site Plan, Project parking will be provided on-site within the main surface parking lot surrounding the three restaurants, and an employee lot taking access from Teagarden Lane. Teagarden Lane, already partially vacated and no longer providing a connection between Palm Avenue and Raymond Avenue, will be fully vacated and serve an employee parking supply south of the former alley alignment. As proposed, approximately 115 parking spaces will be provided for the Project within the main parking lot, which is consistent with the Alhambra Municipal Code (AMC) off-street vehicle parking requirements. Project vehicular access/egress will be provided via three driveways intersecting the east side of Palm Avenue, one driveway intersecting the north side of Pepper Street, and two driveways intersecting the west side of Raymond Avenue. The North Driveway along Palm Avenue will replace the discontinuous Teagarden Lane and access 16 employee-only parking spaces. The Main Driveway along Palm Avenue is proposed for full access/egress, allowing inbound and outbound left- and right-turn movements, while the South Driveway will provide restricted right-turn only access/egress due to the presence of a raised median on Palm Avenue. The Pepper Street driveway will provide full access/egress, allowing inbound and outbound left- and right-turn movements. The Main Driveway along Raymond Avenue will allow for full access/egress in both directions, while the North Driveway will only serve trash trucks during off-peak periods.

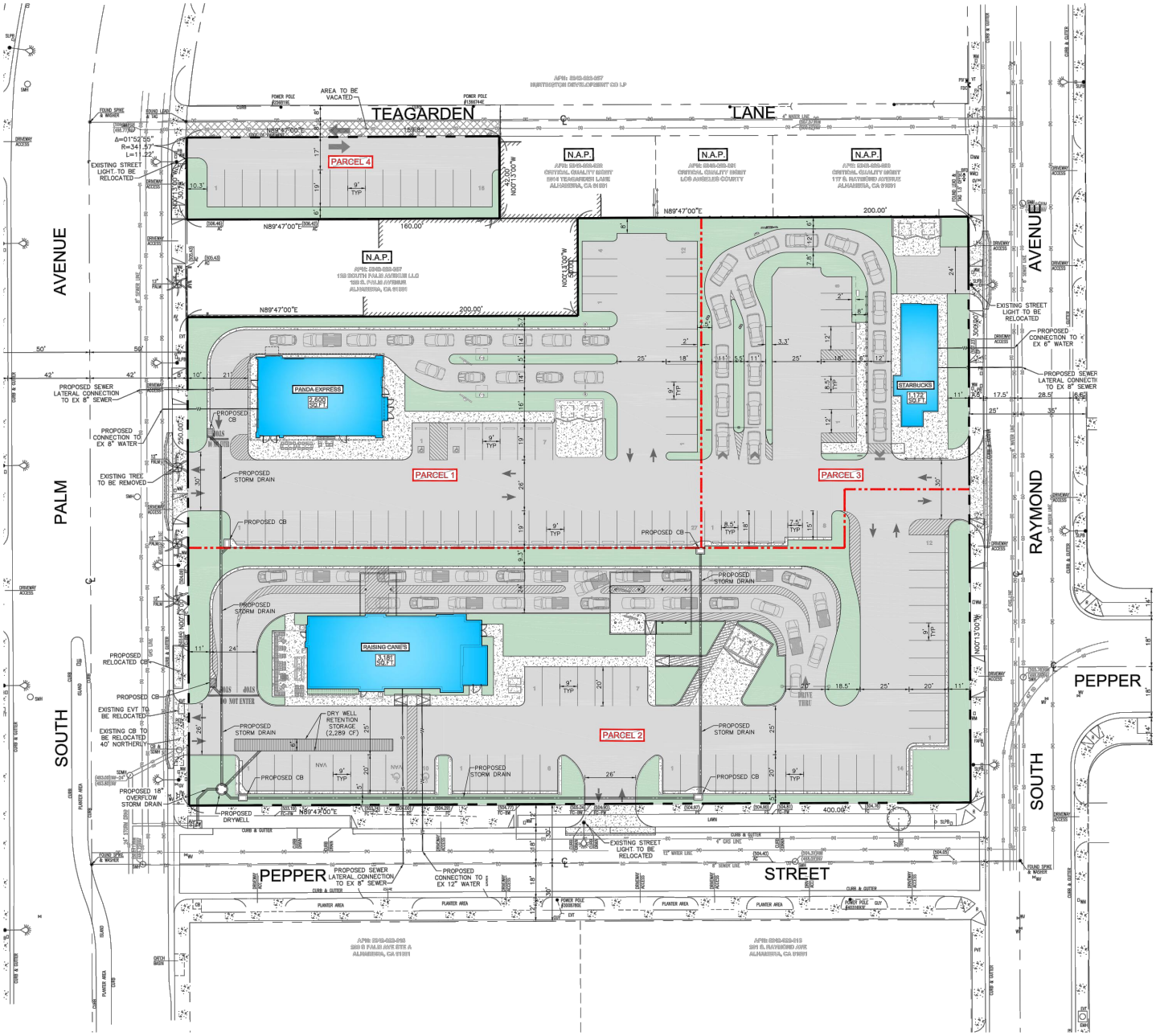

FIGURE 2

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CONCEPTUAL PROJECT SITE PLAN

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3. ENVIRONMENTAL SETTING

The Project is located at 126, 132, and 146 S. Palm Avenue, 127 S. Raymond Avenue, and 2018 Teagarden Lane. The Project site is located on the primarily commercial and industrial corridor that runs along Palm Avenue near the site. Commercial uses are located west of the Project site across Palm Avenue (including a Costco directly west) and south across Pepper Street, while medical facility uses are located to the north and east.

The Project site is not located in close proximity to any major landmarks. The local area surrounding the site is primarily residential in nature, with commercial and industrial uses concentrated along the City's major travel corridors.

The Project site and surrounding uses in the City are well served by Freeways, Major Arterials, Secondary Arterials, Collectors, and Local Streets. Freeways are located south of the Project site and provide convenient access to the larger, regional roadway network. The primary roadways and classifications for the study area, according to the City of Alhambra General Plan, include Palm Avenue designated as a Collector, Commonwealth Avenue as a Secondary Arterial, and both Raymond Avenue and Pepper Street as Local Streets. The site is served by public transportation with bus stops provided at the intersections of Main Street & Raymond Avenue, Palm Avenue & Commonwealth Avenue, and Raymond Avenue & Commonwealth Avenue. The Project area transportation facilities, depicted previously in Figure 1, are described below in more detail.

3.1. EXISTING ROADWAY NETWORK

Regional roadway access for the Project site and the surrounding area is provided via an extensive network that includes freeways, arterials, collectors, and local streets. The San Bernardino (Interstate 10 [I-10]) Freeway is located to the south of the Project site. This freeway provides convenient access to the larger, regional roadway network. Surface streets within the Project study area include Palm Avenue, Commonwealth Avenue, Raymond Avenue, and Pepper Street. These facilities are described in greater detail below.

3.1.1. EXISTING FREEWAYS

The San Bernardino (I-10) Freeway primarily provides east-west regional access, with surface street connections located along Fremont Avenue and Atlantic Boulevard to the south of the Project site. This freeway is a major traffic corridor through the San Gabriel Valley and provides a parallel route to the State Route 60 (SR-60) Freeway that serves as the major thoroughfare in this area. The I-10 Freeway splits with the SR-60 Freeway in the East Los Angeles area and continues eastward through several communities in the south San Gabriel Valley (including Alhambra, San Gabriel, El Monte, West Covina, Pomona, Ontario, and San Bernardino) before it rejoins the SR-60 Freeway in Beaumont. In the vicinity of the Project, this freeway typically provides four general-purpose travel lanes and two FasTrak express lanes in each direction. The nearest ramp connections to the Project site include on- and off-ramps to Fremont Avenue approximately 1.4 miles southwest of the site, and on- and off-ramps to Atlantic Boulevard approximately 1.3 miles southeast of the Project site. According to most current (2019) data available on the State of California Department of Transportation ("Caltrans") website, the I-10 Freeway has an average daily traffic volume of approximately 165,000 to 170,000 vehicles near Fremont Avenue.

3.1.2. EXISTING HIGHWAYS AND STREETS

Palm Avenue is short roadway that provides access to commercial and industrial uses in the City, and it bounds the Project site to the west. The segment of Palm Avenue adjacent to the Project site is designated

as a Collector, per the City's General Plan. Palm Avenue runs from the intersection of Main Street & Raymond Avenue south to its terminus at Mission Road. In the Project vicinity, Palm Avenue is primarily a north-south commercial and industrial corridor, with two through travel lanes in each direction. Side-by-side northbound and southbound left-turn lanes run along Palm Avenue immediately west of the Project site, for a length of approximately 610 feet stretching from the proposed location of the Main Driveway to the north. These side-by-side left-turn lanes allow for left-turn access to a series of commercial properties on both sides of the roadways. Parking is generally permitted on both sides of the roadway.

Commonwealth Avenue is designated as a Secondary Arterial in the vicinity of the Project, per the City's General Plan. Commonwealth Avenue runs discontinuously through the City, traversing in an east-west direction between Granada Avenue to the east and Winchester Avenue to the west, where it continues westerly as Templeton Street. This roadway generally provides two travel lanes in each direction between Fremont Avenue and Raymond Avenue, and one travel lane in each direction outside of this corridor. Left-turn pockets provide access to adjoining roadways and properties in the Project vicinity. Parking is prohibited along Commonwealth Avenue, west of Raymond Avenue, but it is permitted on both sides of the roadway east of Raymond Avenue.

Raymond Avenue is a Collector north of Main Street, per the City's General Plan, and a Collector along the segment that runs east of the Project site. The roadway runs north-south, between Alhambra Road and Mission Road, where it continues on the other side of the railroad tracks until Hellman Avenue. This roadway generally provides one travel lane in each direction with left-turn channelization provided at select major intersections. Parking is generally permitted on both sides of Raymond Avenue.

Pepper Street is a Local Street that runs adjacent to the Project site to the south. The roadway runs discontinuously along an east-west alignment, providing access to local commercial and residential uses between Palm Avenue and Marengo Avenue. Pepper Street provides one travel lane in each direction, and parking is generally permitted on both sides of the roadway.

4. EXISTING PUBLIC TRANSIT

The roadways adjacent to the Project site and the surrounding area are served by bus lines managed by the Los Angeles County Metropolitan Transportation Authority ("Metro") and Alhambra Community Transit (ACT). These bus lines provide a variety of services and, when transfer opportunities are considered, the bus lines outlined below provide access to Amtrak, Metrolink, and numerous other bus routes served by other municipal bus operators. The bus lines within a reasonable/comfortable walking distance (approximately one-quarter mile) of the Project site are shown in Figure 3 and described below. It should be noted that the transit services listed below may have been modified as a result of COVID-19. The service details are based on current operating headways.

4.1. METRO

Line 78 provides east-west local bus service mainly along Mission Road/Huntington Drive and Main Street/Las Tunas Drive between Downtown Los Angeles and Arcadia. Bus stops are located in both directions of travel at Main Street & Raymond Avenue. Headways are approximately 11-13 minutes on weekdays and approximately 30 minutes on weekends.

4.2. ACT

The Green Line provides clockwise and counter-clockwise shuttle service around the City along Main Street, Chapel Avenue, Park Street, Almansor Street, Shorb Street, Vega Street, Valley Boulevard, Fremont Avenue, Commonwealth Avenue, and Palm Avenue. Bus stops are located for both directions of travel at Palm Avenue & Commonwealth Avenue. The shuttle runs on headways of approximately 20 minutes, from 7:00 AM to 6:00 PM on weekdays and 10:00 AM to 4:00 PM on Saturdays.

The Blue Line offers a split schedule of service on weekdays. The shuttle route runs between the California State University Los Angeles campus/Metrolink station and Main Street and Chapel Avenue. The service runs along Hellman Avenue, Fremont Avenue, Commonwealth Avenue, Garfield Avenue, Woodward Avenue, Chapel Avenue, and Bay Street. Bus stops are located at Raymond Avenue & Commonwealth Avenue in both directions of travel near the Project site. The shuttle runs on headways of approximately 20 minutes, from 6:30 AM to 8:40 AM and 2:30 PM to 6:55 PM on weekdays only.

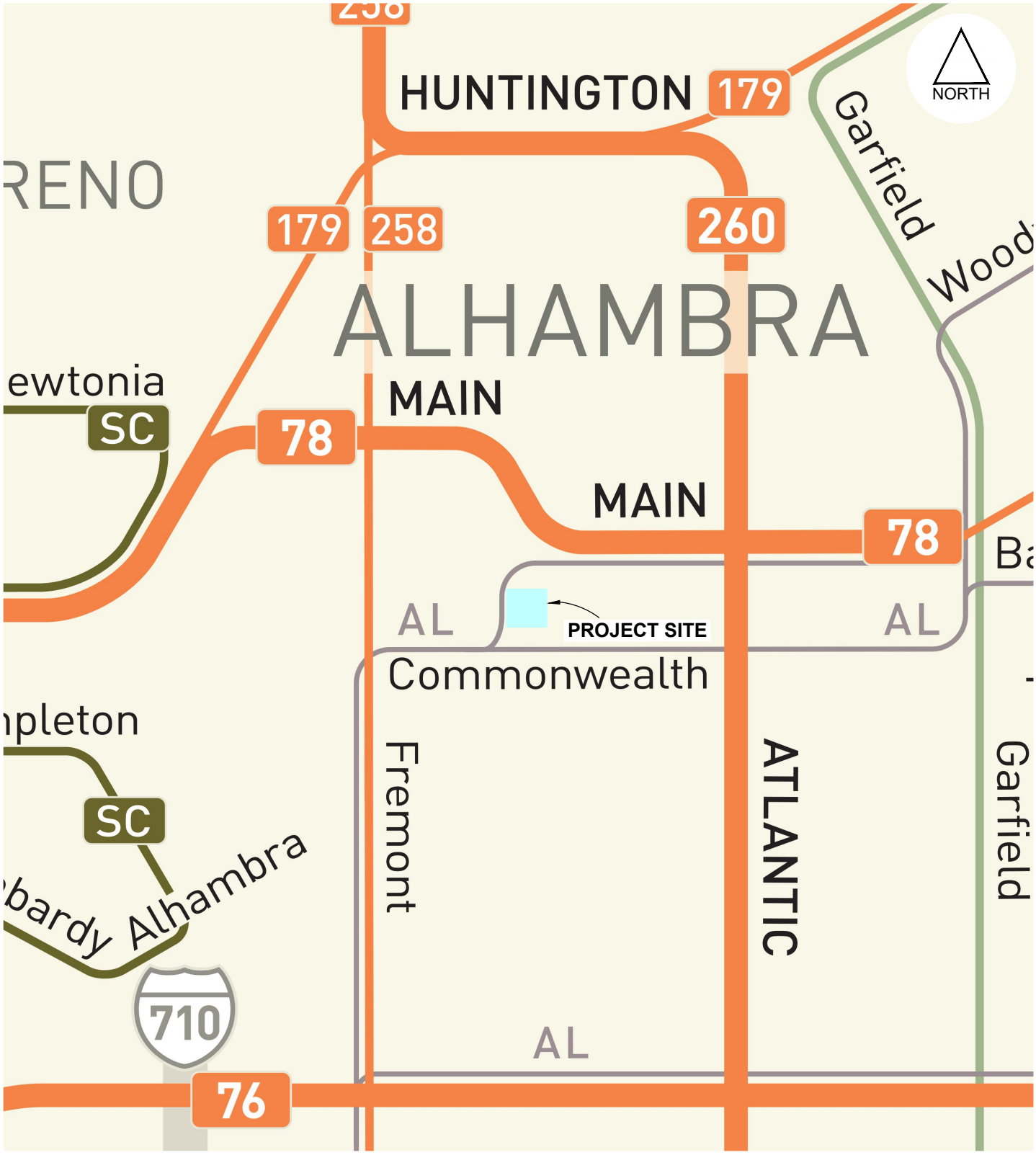

FIGURE 3

J:\2022\JC28074 CFTPlazaAlhambraPalmAve&PepperSt\Graphics\TRANSIT

LOCAL TRANSIT SERVICE MAP

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5. INTERSECTION LOS CONDITIONS

To determine the effects of the Project on the operation of vehicular travel within the immediate Project vicinity, an evaluation was conducted of the Project's contribution to delay at key adjacent intersections under existing and future conditions. For purposes of a conservative traffic analysis, a Project completion year of 2024 has been assumed. In consultation with the City, the following nearby study intersections were selected for the analysis of potentially negative Project traffic effects:

1. Palm Avenue & Commonwealth Avenue
2. Raymond Avenue & Commonwealth Avenue

This section outlines the results of the delay and queuing analysis for Existing (2022) and Future Opening Year (2024) conditions during the weekday AM and PM peak hours. This analysis was conducted in accordance with the methodology outlined in the City's Traffic Scoping memorandum dated April 6, 2022 (Appendix A).

5.1. ANALYSIS METHODOLOGY

An analysis of existing and future weekday AM and PM peak-hour traffic conditions at the study intersections, listed above, was performed through the use of established traffic engineering techniques. The analysis used to determine traffic operations at the study intersections was performed using Trafficware's Synchro Studio, which includes both Synchro and SimTraffic software.

The methodology for the analysis of traffic operations at the study intersections follows the procedures outlined in the *Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis* (HCM). The HCM methodology determines intersection LOS based on operational vehicle delay. The term LOS describes the quality of traffic flow. For signalized intersections and (unsignalized) all-way stop controlled intersections, the operational delay corresponds to the average delay experienced by all movements at the intersection. LOS values of A through C indicate excellent to decent traffic flow conditions. LOS D corresponds with fair conditions that may experience substantial delay during portions of the peak hours, but without excessive backups. LOS E represents poor conditions, with volumes at or near the capacity of the intersection and long lines of vehicles that may have to wait through several signal cycles. LOS F is characteristic of failure (i.e., the intersection is overloaded, vehicular movements may be restricted or prevented, and delays and vehicle queues become increasingly longer). For unsignalized, two-way stop-controlled intersections, the operational delay corresponds to the delay for the stop-controlled movements. The LOS ranges of delay per the HCM are shown in Tables 1 and 2 for signalized and unsignalized intersections, respectively.

Table 1: HCM LOS & Delay for Signalized Intersections

LOS	Delay (d) [seconds/vehicle]
A	d ≤ 10.0
B	10.0 < d ≤ 20.0
C	20.0 < d ≤ 35.0
D	35.0 < d ≤ 55.0
E	55.0 < d ≤ 80.0
F	d > 80.0
Source: *Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis* , Exhibit 19-8 for signalized intersections.	

Table 2: HCM LOS & Delay for Two-Way and All-Way Stop-Controlled Intersections

LOS	Delay (d) [seconds/vehicle]
A	d ≤ 10.0
B	10.0 < d ≤ 15.0
C	15.0 < d ≤ 25.0
D	25.0 < d ≤ 35.0
E	35.0 < d ≤ 50.0
F	d > 50.0
Source: *Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis* , Exhibit 20-2 for two-way STOP-controlled intersections and Exhibit 21-8 for all-way STOP-controlled intersections.	

All movements at signalized intersections experience some degree of delay due to stoppages resulting from conflicting signal phases. In contrast, LOS is not defined along uncontrolled approaches at two-way stop-controlled intersections, as vehicles making these movements typically do not experience delay. Left-turn movements across uncontrolled opposing traffic, however, do experience delay and have an associated LOS designation. Similarly, stop-controlled movements at these intersections experience delay as conflicting traffic clears the intersection, which results in an LOS value for the stop-controlled approaches. As all vehicular turning movements stop at all-way stop controlled intersections, the average delay is for all vehicles passing through the intersection.

According to the City's TS Guidelines and General Plan, the City strives to maintain LOS D or better operations at intersections, and intersections operating at LOS E or F are considered deficient. As such, a development project must identify improvements to upgrade intersection operations if either of the following conditions result at a signalized intersection due to project development:

- Project-related increase in volume-to-capacity (V/C) ratio is greater than or equal to 0.020 at an intersection that deteriorates from acceptable (LOS D or better) to unacceptable (LOS E or F) operations.

A development project must identify improvements for unsignalized intersections should project development result in either of the following:

- Project-related traffic degrades overall intersection operations from acceptable (LOS D or better) to unacceptable (LOS E or F)
- Project-related increase in traffic contributes 10 percent or more to the total peak-hour volume at an intersection that is already at LOS E or F

5.2. EXISTING (2022) TRAFFIC CONDITIONS

Traffic count data at the intersections of Palm Avenue & Commonwealth Avenue, Raymond Avenue & Commonwealth Avenue, Palm Avenue & Teagarden Lane, Palm Avenue & Costco Driveway, and Palm Avenue & Pepper Street were obtained from manual traffic counts conducted on May 5, 2022. Local schools were in session during the data collection periods. In accordance with the City's TS Guidelines, the traffic counts at these intersections cover the weekday morning and/or afternoon commute peak periods. Peak-hour volumes were determined individually for each intersection based on the highest one-hour volumes

for all vehicular movements to all approaches of that intersection. The manual traffic count data sheets are provided in Appendix B.

Traffic count data were also collected at the intersection of Date Avenue & Commonwealth Avenue at the same time as the other manual traffic counts. At that time, the north leg of the intersection was temporarily blocked off to inbound traffic, causing vehicles that needed to enter Costco to use driveways along Palm Avenue. Because of this shift in Costco vehicle trips, it was necessary to redistribute inbound Costco trips to Date Avenue & Commonwealth Avenue to reflect normal conditions. Outbound Costco vehicle traffic volumes at Date Avenue & Commonwealth Avenue were used to develop inbound volumes used for the analysis in this report. The Date Avenue & Commonwealth Avenue traffic counts have also been included in Appendix B.

As the proposed Project South Driveway intersection next to Raising Cane's does not yet exist along Palm Avenue, peak-hour through movement traffic volumes along Palm Avenue at this location were developed using the turning movement volume data from the adjacent analysis locations, Palm Avenue & Costco Driveway and Palm Avenue & Pepper Street. Weekday AM and PM peak-hour traffic volumes at the study intersections are illustrated in Figures 4(a) and 4(b), respectively.

Information pertaining to intersection characteristics, such as geometrics, traffic signal operations, and on-street parking restrictions, were obtained from field checks and City engineering plans. The existing lane configuration and traffic control conditions for the study intersections are illustrated in Appendix C.

The analysis of the study intersections for existing year (2022) conditions was performed using the methodologies described previously. These estimates are the foundational volumes used in determining queuing and delay conditions for the surrounding roadway system.

Table 3 presents the results of the delay-based quantitative analysis of Existing (2022) conditions. As shown, under Existing (2022) conditions, the intersection of Palm Avenue & Commonwealth Avenue operates at LOS B during both peak hours. The intersection of Raymond Avenue & Commonwealth Avenue operates at LOS B during the AM peak hour and LOS F during the PM peak hour. Therefore, Raymond Avenue & Commonwealth Avenue presently operates at unacceptable conditions (per the City's General Plan) during the PM peak hour. The Synchro operational analysis worksheets for Existing (2022) conditions are provided in Appendix D.

Table 3: Existing (2022) Traffic Conditions
Intersection Delay Summary

No.	Intersection	Approach	Typical Weekday			
			AM Peak Hour		PM Peak Hour	
			Delay[1]	LOS[2]	Delay[1]	LOS[2]
1	Palm Avenue & Commonwealth Avenue	Overall	11.7	B	13.3	B
2	Raymond Avenue & Commonwealth Avenue	Overall	14.6	B	51.9	F

Notes: [1] Delay in seconds. [2] LOS = Level of Service.

5.3. PROJECT TRAFFIC

The following section describes the methodology used to determine the trip generation, distribution, and assignment of the Project's vehicular traffic.

5.3.1. TRIP GENERATION

Trip generation rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021) were utilized to estimate the vehicle trips associated with the proposed Project and existing land uses. The trip generation equations, rates, and directional distributions in the ITE manual are nationally recognized and are used as the basis for most transportation-related studies conducted in the City and surrounding region. Information was obtained from the *Trip Generation Manual* for ITE Land Use Code (LUC) 150 – Warehousing, LUC 934 – Fast Food Restaurant with Drive-Through, and LUC 938 – Coffee/Donut Shop with Drive-Through and No Indoor Seating. Rates from this source were applied to develop the Project's vehicle trip generation estimates. Table 4 presents the trip generation rates used to generate the weekday daily and peak-hour traffic volumes for the Project.

Table 4: Project Weekday Trip Generation Rates

Land Use	Time Period	Trip Generation Rate and Directional Distribution		
		Rate[2]	IB[3]	OB[4]
Warehousing, ITE LUC 150 - General Urban/Suburban setting[1]				
	Daily	T = 1.71 trips per 1,000 square feet of GFA		
	AM Peak Hour	T = 0.17 trips per 1,000 square feet of GFA	77%	23%
	PM Peak Hour	T = 0.18 trips per 1,000 square feet of GFA	28%	72%
Fast Food Restaurant with Drive-Through Window, ITE LUC 934 – General Urban/Suburban setting[1]				
	Daily	T = 467.48 trips per 1,000 square feet of GFA		
	AM Peak Hour	T = 44.61 trips per 1,000 square feet of GFA	51%	49%
	PM Peak Hour	T = 33.03 trips per 1,000 square feet of GFA	52%	48%
Coffee/Donut Shop with Drive-Through Window and No Indoor Seating, ITE LUC 938 – General Urban/Suburban setting[1]				
	Daily	T = 179.00 trips per drive-through lane		
	AM Peak Hour	T = 39.81 trips per drive-through lane	50%	50%
	PM Peak Hour	T = 15.08 trips per drive-through lane	50%	50%

[1] Source: Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021). [2] GFA = Gross Floor Area. [3] IB = Inbound. [4] OB = Outbound.

For this analysis, the ITE *Trip Generation Manual* trip generation rates provided in Table 4 were used to determine the weekday daily, AM peak-hour, and PM peak-hour vehicle trips anticipated for the Project. As these rates do not account for such trip-reducing factors as internally captured trips, significant transit usage and/or walk-trip potential, or pass-by trips, the baseline vehicle trip estimates reflect a conservative condition. These trip-reducing factors are important considerations in determining the actual traffic-generating characteristics of a development project and, therefore, adjustments were made to the baseline trip generation estimates to develop the Project's vehicle trips. Although there are a few bus lines with stops within a comfortable walking distance of the Project site, transit/walk-in adjustments were conservatively excluded from the Project's trip adjustments. In addition, a low level of internal trip interaction is anticipated between the proposed fast-food restaurant and coffee shop uses, so the Project trip generation estimates conservatively do not include internal capture adjustments.

However, Project trip adjustment factors were applied that account for the presence of "pass-by" trips. As motorists pass by the Project, the specific convenient facilities provided by the Project (or other factors) may produce a stop at the site. Such activity is considered an interim stop along a trip that existed irrespective of the development of the Project, and therefore vehicles making these stops are not considered newly generated Project-related traffic. The ITE *Trip Generation Manual* provides a series of recommended pass-by trip reduction percentages for various commercial land use types and sizes. In line with these guidelines, pass-by trip reductions were applied to the Project's proposed restaurant (Fast Food Restaurant

with Drive-Through Window and Coffee/Donut Shop with Drive-Through Window and No Indoor Seating) components.

The trip generation rates and aforementioned adjustment factors were employed to derive Project vehicle trip projections. Table 5 summarizes the trip generation estimates for the Project. As shown in Table 5, once completed and occupied, the Project is anticipated to generate a total of 1,371 net daily vehicle trips, including 24 vehicle trips during the AM peak hour (11 inbound, 13 outbound) and 85 trips during the PM peak hour (44 inbound, 41 outbound). These peak-hour trips were distributed to the two study intersections for the Project impact analysis.

Table 5: Project Weekday Trip Generation Summary[1]

Land Use/Trip Type	ITE Code	Intensity[2]	Average Weekday	AM Peak Hour			AM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Generation Rates									
Warehousing/Vehicle	150	1 ksf	1.71	77%	23%	0.17	28%	72%	0.18
Fine Dining Restaurant/Vehicle	931	1 ksf	83.84	NA	NA	0.73	67%	33%	7.80
Fast-Food Restaurant with Drive-Through Window/Vehicle	934	1 ksf	467.48	51%	49%	44.61	52%	48%	33.03
Coffee/Donut Shop with Drive-Through Window and No Indoor Seating/Vehicle	938	1 dtl	179.00	50%	50%	39.81	50%	50%	15.08
Trip Generation Summary									
Description		**Size**	**Average Weekday**	**AM Peak Hour**			**AM Peak Hour**		
				In	**Out**	**Total**	**In**	**Out**	**Total**
Proposed Uses									
Restaurant									
Fast-Food Restaurant with Drive-Through Window Baseline Vehicle Trips[3]		2.600 ksf	1,215	4	4	8	45	41	86
Pass-By Adjustment[4]			(607)	0	0	0	(25)	(22)	(47)
Fast-Food Restaurant with Drive-Through Window Total			608	4	4	8	20	19	39
Fast-Food Restaurant with Drive-Through Window Baseline Vehicle Trips[3]		3.181 ksf	1,487	5	5	10	55	50	105
Pass-By Adjustment[4]			(743)	0	0	0	(30)	(28)	(58)
Fast-Food Restaurant with Drive-Through Window Total			744	5	5	10	25	22	47
Coffee/Donut Shop with Drive-Through Window and No Indoor Seating Vehicle Trips		2 dtl	358	40	40	80	15	15	30
Pass-By Adjustment[5]			(322)	(36)	(36)	(72)	(15)	(14)	(29)
Coffee/Donut Shop with Drive-Through Window and No Indoor Seating Total			36	4	4	8	0	1	1
Proposed Project Total External Trips by Vehicle (incl. Pass-By Trips)			**3,060**	**49**	**49**	**98**	**115**	**106**	**221**
Proposed Project Total External Project Trips by Vehicle			**1,388**	**13**	**13**	**26**	**45**	**42**	**87**
Existing Use									
Industrial									
Warehouse Vehicle Trips		10.000 ksf	17	2	0	2	1	1	2
Pass-By Adjustment[6]			0	0	0	0	0	0	0
Warehouse Total			17	2	0	2	1	1	2
Existing Project Driveway Trips (incl. Pass-By Trips)			**17**	**2**	**0**	**2**	**1**	**1**	**2**
Existing Project Trips			**17**	**2**	**0**	**2**	**1**	**1**	**2**
Net Project Driveway Trips (including Pass-By Trips)			**3,043**	**47**	**49**	**96**	**114**	**105**	**219**
Net Project Trips			**1,371**	**11**	**13**	**24**	**44**	**41**	**85**

Notes:

[1] ITE *Trip Generation Manual* (11th Edition, 2021) trip generation rates and directional distributions were applied for Land Use Code 150 (Warehousing), Land Use Code 934 (Fast-Food Restaurant with Drive-Through Window), and Land Use Code 938 (Coffee/Donut Shop with Drive-Through Window and No Indoor Seating) to develop baseline vehicle trip estimates for the existing and proposed land uses. The General Urban/Suburban setting was selected as most appropriate for the Project location. Transit and walk/bicycle trip adjustments were conservatively not applied to the baseline vehicle trip calculations.

[2] ksf = Thousands of Square Feet of Gross Floor Area; dtl = Number of Drive-Thru Lanes.

[3] ITE *Trip Generation Manual* (11th Edition, 2021) trip rates for Land Use Code 934 (Fast-Food Restaurant with Drive-Through Window) have been developed based on fast-food restaurants providing breakfast service. As the Project's proposed fast-food restaurants will not serve breakfast, the AM peak-hour trip rate for Land Use Code 934 is inappropriate for the proposed fast-food restaurant uses. In order to estimate the weekday AM peak-hour trip generation for these uses, the relationship between AM and PM peak-hour trip rates was reviewed for Land Use Code 931 (Fine Dining Restaurant), as this land use's trip rates are based on surveys of restaurants that generally do not serve breakfast. An AM-to-PM peak-hour factor was developed using the Fine Dining Restaurant trip generation rates and applied to the PM peak-hour trip generation rate for the Fast-Food Restaurant with Drive-Through Window uses to determine the (employee-only) AM peak-hour trip generation estimates for the proposed fast-food restaurants.

[4] Per the appendices of the ITE *Trip Generation Manual* (11th Edition, 2021), a 55 percent pass-by trip rate has been assumed for the proposed Fast-Food Restaurant use during the weekday PM peak hour. As the proposed Fast-Food Restaurant uses will not provide breakfast service, no pass-by trip reduction was applied during the AM peak hour. A daily pass-by trip rate of 50 percent was conservatively assumed.

[5] Per the appendices of the ITE *Trip Generation Manual* (11th Edition, 2021), 90 percent and 98 percent pass-by trip rates have been assumed for the proposed Coffee/Donut Shop with Drive-Through Window use during the weekday AM and PM peak hours, respectively. A daily pass-by trip rate of 90 percent was conservatively assumed.

[6] No pass-by trips were assumed for the existing warehousing land use.

5.3.2. TRIP DISTRIBUTION AND ASSIGNMENT

Estimation of the directional distribution of Project trips was the next step in the analytical process. The primary factors affecting the trip distribution patterns are the nature of the Project uses, existing traffic patterns, characteristics of the surrounding roadway system, geographic location of the Project site and its proximity to freeways and major travel routes, residential areas from which employees would likely be drawn, and the various regions generating patrons. In addition, the Project trip distribution was developed based on a review of historical traffic counts collected at the study intersections. Based on these factors and datasets, the overall Project directional trip distribution percentages were determined and are summarized in Table 6.

Table 6: Project Directional Trip Distribution Percentages

Direction	Percentage
North	25%
South	25%
East	25%
West	25%
Total	*100%*

The general distribution percentages shown in Table 6 were then disaggregated and assigned to specific routes and intersections within the study area that are expected to be used for Project access/egress. The Project's trip distribution percentages are presented graphically in Figures 5(a) and 5(b) for the proposed and existing uses, respectively.

Applying these inbound and outbound percentages to the (non-pass-by) Project trip generation estimates previously calculated in Table 5, net Project traffic volumes at the two study intersections were determined for the weekday AM and PM peak hours. In addition to the non-pass-by Project trip assignment, a review of the 2022 peak-hour traffic volumes collected along Palm Avenue and Raymond Avenue was conducted to develop the assignment of Project pass-by trips. During the PM peak hour, approximately 73 percent of vehicle trips passing by the site occur along Palm Avenue (34 percent northbound and 39 percent southbound), while approximately 27 percent of vehicle trips passing by the site occur along Raymond Avenue (15 percent northbound and 12 percent southbound).

These pass-by percentages were applied to the Project's pass-by trip estimates presented in Table 5 to determine the pass-by trips entering and exiting each Project driveway during the weekday AM and PM peak hours. The Project pass-by trip volumes for the weekday AM and PM peak hours are presented in Figures 6(a) and 6(b), respectively, for the Project's main and south driveways on Palm Avenue (to be used in the Driveway Access Analysis later in this report). The net Project weekday AM and PM peak-hour traffic volumes at the study intersections, which include non-pass-by and pass-by trips, and are depicted in Figures 7(a) and 7(b), respectively.

5.4. FUTURE OPENING YEAR (2024) TRAFFIC CONDITIONS

There are a number of other projects either under construction or planned for development in the surrounding area that may contribute future traffic volumes to the study locations. For this reason, the analysis of future opening year traffic conditions was expanded to include potential traffic volume increases expected to be generated by these other development projects. In order to evaluate future traffic conditions in the Project area, an analysis of Existing (2022) traffic volumes was first conducted, as described previously. For the analysis of future conditions, an ambient traffic growth factor of 1.0 percent per year, compounded

annually, was applied to the existing volumes at the study intersections to develop future year (2024) baseline traffic volumes. The inclusion of the annual growth factor generally accounts for area-wide traffic volume increases. To ensure a conservative estimate of cumulative traffic conditions, the traffic volumes generated by "cumulative projects" in the study area were added to the future baseline traffic volumes. These volumes formed the basis for the Future Opening Year (2024) Without Project traffic condition. In addition, traffic expected to be generated by the Project was analyzed as an incremental addition to the Future Opening Year (2024) Without Project condition. The total future volumes, including those due to cumulative projects and the Project, formed the basis for the Future Opening Year (2024) With Project condition.

5.4.1. AMBIENT TRAFFIC GROWTH

Based on a coordination with City staff regarding historical traffic volume growth in the Project vicinity, an annual ambient traffic growth factor of 1.0 percent per year was determined appropriate for the estimation of future traffic volumes. This growth factor was used to account for increases in traffic volumes due to potential development projects not yet proposed or outside the study area. Compounded annually, the ambient traffic growth factor was applied to the Existing (2022) traffic volumes to develop the estimated baseline traffic volumes for the future study year of 2024.

5.4.2. CUMULATIVE PROJECTS

In addition to the use of the ambient traffic growth rate, listings of potential development projects located in the surrounding area ("cumulative projects") that might be developed or under construction within the study time frame were obtained from the City's Planning Department. The cumulative project list provided by the City's Community Development Department was reviewed and refined for potential cumulative projects to be included in the Project analysis. Per City guidance, cumulative projects were included from this source and within a 1.5-mile radius around the Project. Of the development projects on the City's list, 14 projects were incorporated into the Future Opening Year (2024) Without Project and With Project traffic volume conditions.

The locations of the cumulative projects are shown in Figure 8, Cumulative Project Location Map. The cumulative project locations, descriptions, and trip generation estimates are summarized in Table 7. For the analysis of Future Opening Year (2024) Without Project traffic conditions, each cumulative project's generated vehicle trips were distributed and assigned to the study area circulation system, using methodologies similar to those previously described for the Project trip distribution and assignment. Summing the individual cumulative project traffic volume assignments, the total cumulative project traffic volumes at the study intersections were calculated and are shown in Figures 9(a) and 9(b) for the weekday AM and PM peak hours, respectively. These total cumulative project traffic volumes were added to the aforementioned 2024 baseline traffic volumes to develop Future Opening Year (2024) Without Project traffic volumes, as shown in Figures 10(a) and 10(b) for the weekday AM and PM Peak hours, respectively.

Net Project volumes [Figures 7(a) and 7(b)], as determined earlier, were then added to the Future Opening Year (2024) Without Project traffic volumes to develop the Future Opening Year (2024) With Project traffic volumes. The Future Opening Year (2024) With Project weekday AM and PM peak-hour traffic volumes are shown in Figures 11(a) and 11(b), respectively.

Table 7: Cumulative Project Locations, Descriptions, and Trip Generation Estimates

No.	Address/Location	Size	Project Description	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
1	1301 W. Valley Boulevard[1]	1 tn	Automatic Car Wash	890	31	18	49	39	39	78
2	1318 & 1322 W. Alhambra Road[2]	5,000 sf	Meditation Center	38	1	1	2	1	1	2
3	749, 753 & 801 S. Sierra Vista Avenue[3]	18 du	Residential	121	2	5	7	6	3	9
4	38 S. 2nd Street[4]	50 du 550 sf	Affordable Housing General Commercial	271	6	13	19	16	11	27
5	29 S. Electric Avenue[5]	10 emp	New School Building	353	48	41	89	11	11	22
6	2000 W. Mission Road[6]	69,402 sf	Self-Storage Building	101	4	2	6	5	5	10
7	501 S. Marengo Avenue[7]	53,700 sf	Warehouse	92	7	2	9	3	7	10
8	110 S. Chapel Avenue[3]	24 du	Residential	162	2	8	10	8	4	12
9	101-107 S. Chapel Avenue[8]	28 du 1,000 sf	Residential Commercial Office	200	5	8	13	9	6	15
10	103 N. Chapel Avenue[9]	44 du 1,025 sf	Affordable Housing Commercial Office	223	7	11	18	12	9	21
11	15 S. Chapel Avenue[10]	10 du 1,500 sf	Residential Commercial Retail	149	3	5	8	8	7	15
12	123 S. Chapel Avenue[11]	37 du 3,412 sf	Residential Commercial Office	286	8	12	20	13	11	24
13	321 S. Raymond Avenue[7]	5,867 sf	Warehouse	10	1	0	1	0	1	1
14	2424 W. Main Street[1]	1 tn	Automatic Car Wash	890	31	18	49	39	39	78

Notes:

tn = Carwash Tunnel; sf = Square Feet, du = Dwelling Units; emp = Employees.

[1] PM peak-hour trip generation and trip directional distribution of trips based on ITE Land Use Code (LUC) 948 (Automated Car Wash). In the absence of daily and AM peak-hour trip rates, daily-to-PM and AM-to-PM trip rate factors were developed based on ITE LUC 949 (Car Wash and Detail Center) and were applied to the PM peak-hour trip rate for Land Use Code 948.

[2] Trip generation and peak-hour trip directional distribution of trips based on ITE LUC 560 (Church).

[3] Trip generation and peak-hour trip directional distribution of trips based on ITE LUC 220 (Multifamily Housing [Low-Rise]).

[4] Trip generation and peak-hour trip directional distribution of trips based on ITE LUC 223 (Affordable Housing) and LUC 822 (Strip Retail Plaza).

[5] AM and PM peak-hour trip generation and directional distribution of trips based on ITE LUC 530 (Private School [K-8]). In the absence of a daily trip rate, a daily-to-(AM+PM) trip rate factor was developed based on the LUC 530 rates with students as the independent variable, and this factor was applied to the (AM+PM) trip rate with employees as the independent variable.

[6] Trip generation and peak-hour trip directional distribution of trips based on ITE LUC 151 (Mini-Warehouse).

[7] Trip generation and peak-hour trip directional distribution of trips based on ITE LUC 150 (Warehouse).

[8] Trip generation and peak-hour trip directional distribution of trips based on ITE LUC 220 (Multifamily Housing [Low-Rise]) and LUC 710 (General Office Building).

[9] Trip generation and peak-hour trip directional distribution of trips based on ITE LUC 223 (Affordable Housing) and LUC 710 (General Office Building).

[10] Trip generation and peak-hour trip directional distribution of trips based on ITE LUC 220 (Multifamily Housing [Low-Rise]) and 822 (Strip Retail Plaza).

[11] Trip generation and peak-hour trip directional distribution of trips based on ITE LUC 220 (Multifamily Housing [Low-Rise]) and LUC 710 (General Office Building).

5.4.3. ANALYSIS OF FUTURE OPENING YEAR (2024) TRAFFIC CONDITIONS

The analysis of future traffic conditions at the study intersections was performed using the analysis procedures described for the evaluation of existing conditions. As discussed previously, future opening year (2024) baseline traffic volumes for the Without Project condition were determined by superimposing area-wide ambient traffic growth and cumulative project traffic volumes onto Existing (2022) traffic volumes. These volumes were used in the development of a Synchro model for Future Opening Year (2024) Without Project traffic conditions.

The Future Opening Year (2024) With Project traffic volumes were developed by adding net Project volumes to the Future Opening Year (2024) Without Project traffic volumes. The Future Opening Year (2024) With Project traffic volumes were incorporated into a Synchro model to determine the future delay and queuing conditions at the study intersections after the Project and cumulative projects in the study area are completed and operational. The Synchro delay calculation worksheets for the two future traffic condition scenarios are included in Appendix D.

The results of the delay-based quantitative analysis of future traffic conditions at the study intersections are summarized in Table 8. As shown, under Future Opening Year (2024) Without Project conditions, traffic operations are expected to degrade when compared with existing conditions, due to ambient and cumulative project traffic volume growth. Palm Avenue & Commonwealth Avenue is expected to continue to operate at LOS B during the AM and PM peak hours. Raymond Avenue & Commonwealth Avenue would deteriorate from LOS B to LOS C in the AM peak hour and continue to operate at LOS F in the PM peak hour.

Table 8: Future Opening Year (2024) Traffic Conditions
Intersection Delay Summary

No.	Intersection	Approach	Without Project				With Project					
			AM Peak Hour		PM Peak Hour		AM Peak Hour			PM Peak Hour		
			Delay[1]	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]	Change[3]	Delay[1]	LOS[2]	Change[3]
1	Palm Avenue & Commonwealth Avenue	Overall	11.8	B	15.2	B	11.8	B	0.0	15.7	B	0.5
2	Raymond Avenue & Commonwealth Avenue	Overall	15.4	C	63.8	F	15.6	C	0.2	66.1	F	2.3

Notes: [1] Delay in seconds. [2] LOS = Level of Service. [3] Change in delay reported in seconds.

Following the addition of Project traffic, the two study intersections would continue to operate at the same LOS as under the Future Opening Year (2024) Without Project conditions. As the intersection of Raymond Avenue & Commonwealth Avenue is projected to operate at LOS F during the PM peak hour, the intersection is technically considered deficient per the City's TS Guidelines. However, the Project-related increase in traffic would contribute less than 10 percent to the total PM peak hour volume (23 net Project-related trips will be approximately 1.7 percent of 1,324 total PM peak-hour trips through the intersection). Therefore, the City's non-CEQA thresholds for adverse transportation effects are not met for this intersection.

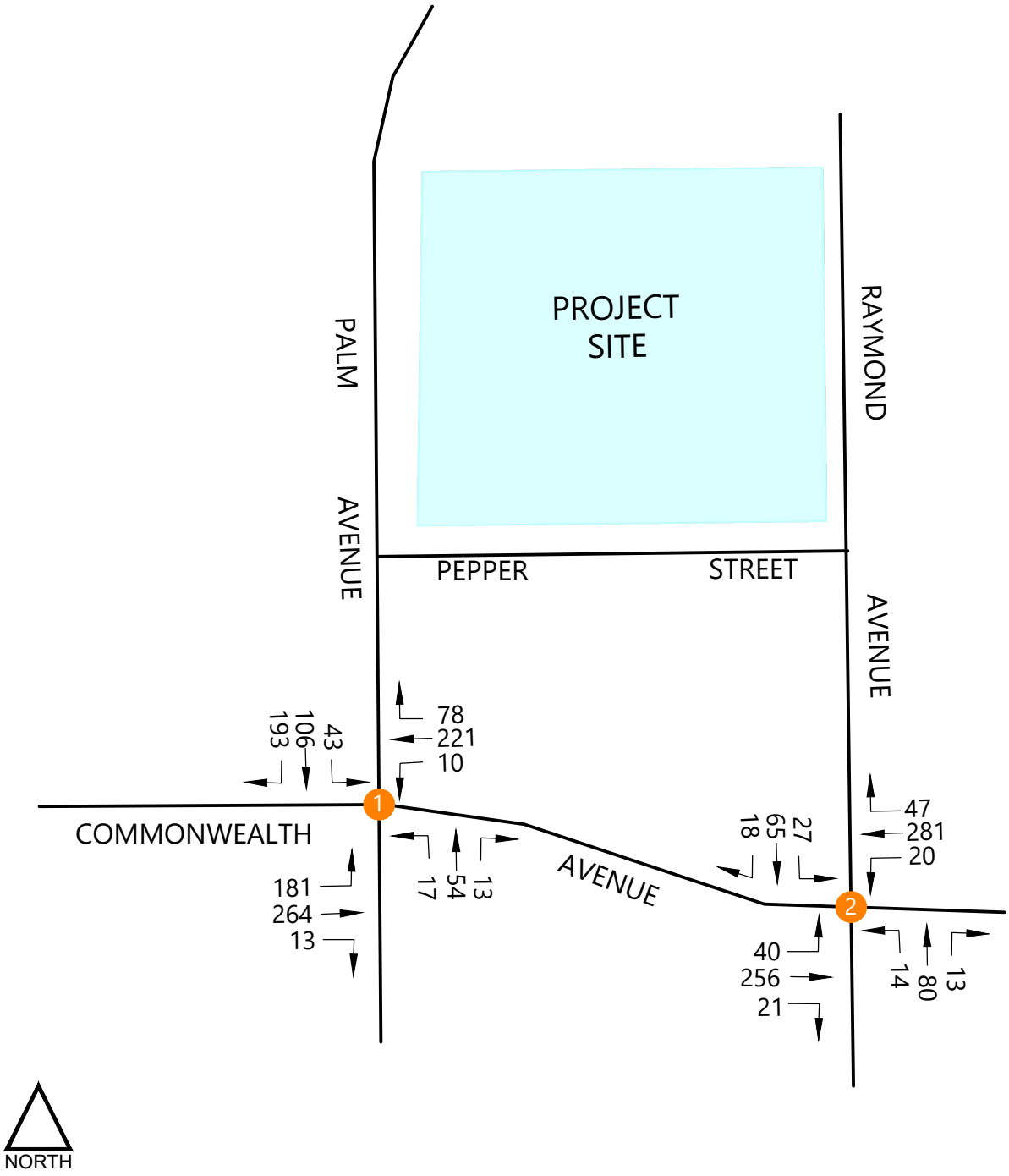

FIGURE 4(a)

10/24/2022

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EXISTING (2022) TRAFFIC VOLUMES
AM PEAK HOUR

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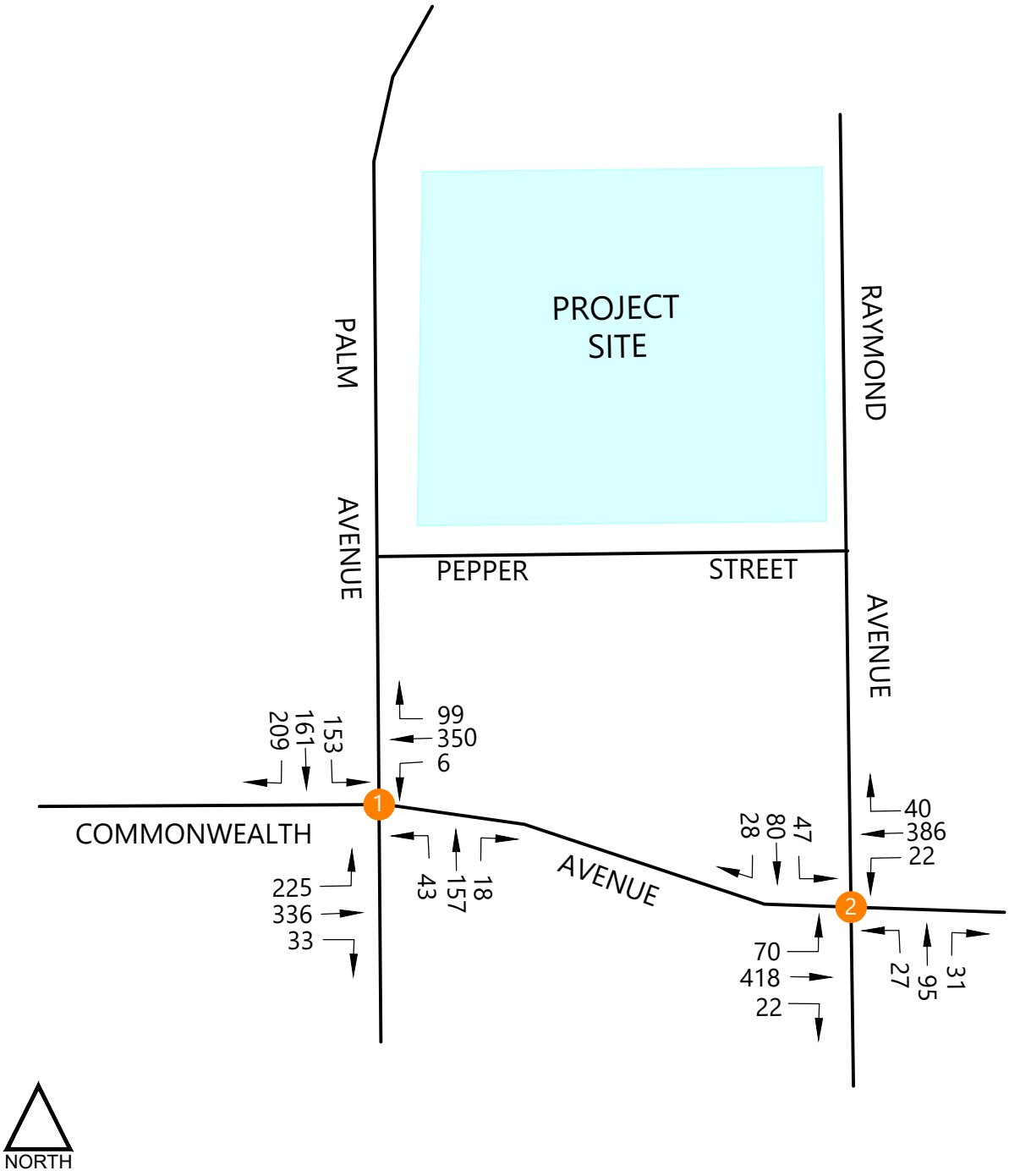

FIGURE 4(b)

10/24/2022

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EXISTING (2022) TRAFFIC VOLUMES
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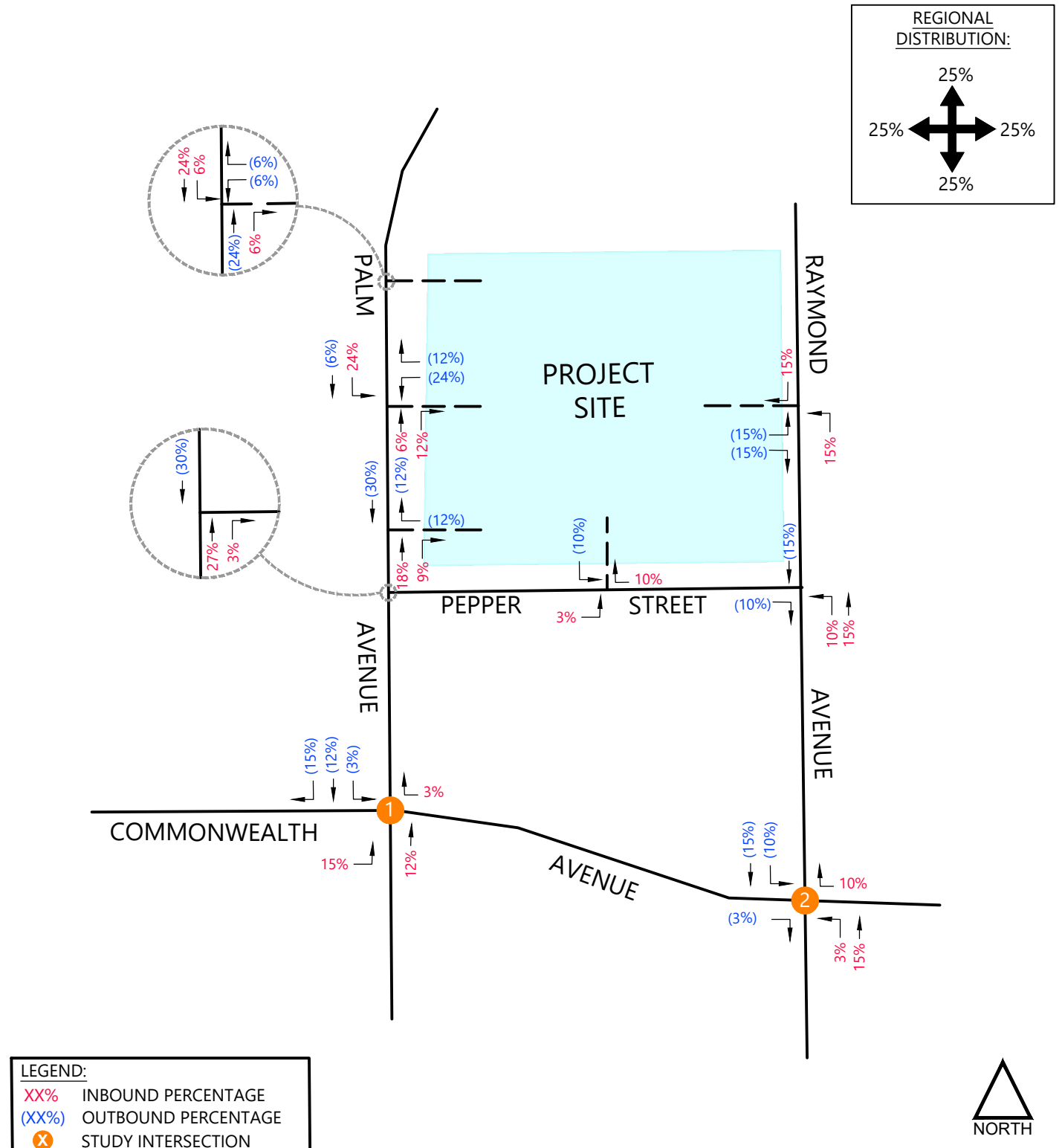

FIGURE 5(a)

10/24/2022

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PROJECT TRIP DISTRIBUTION PERCENTAGES
PROPOSED USES

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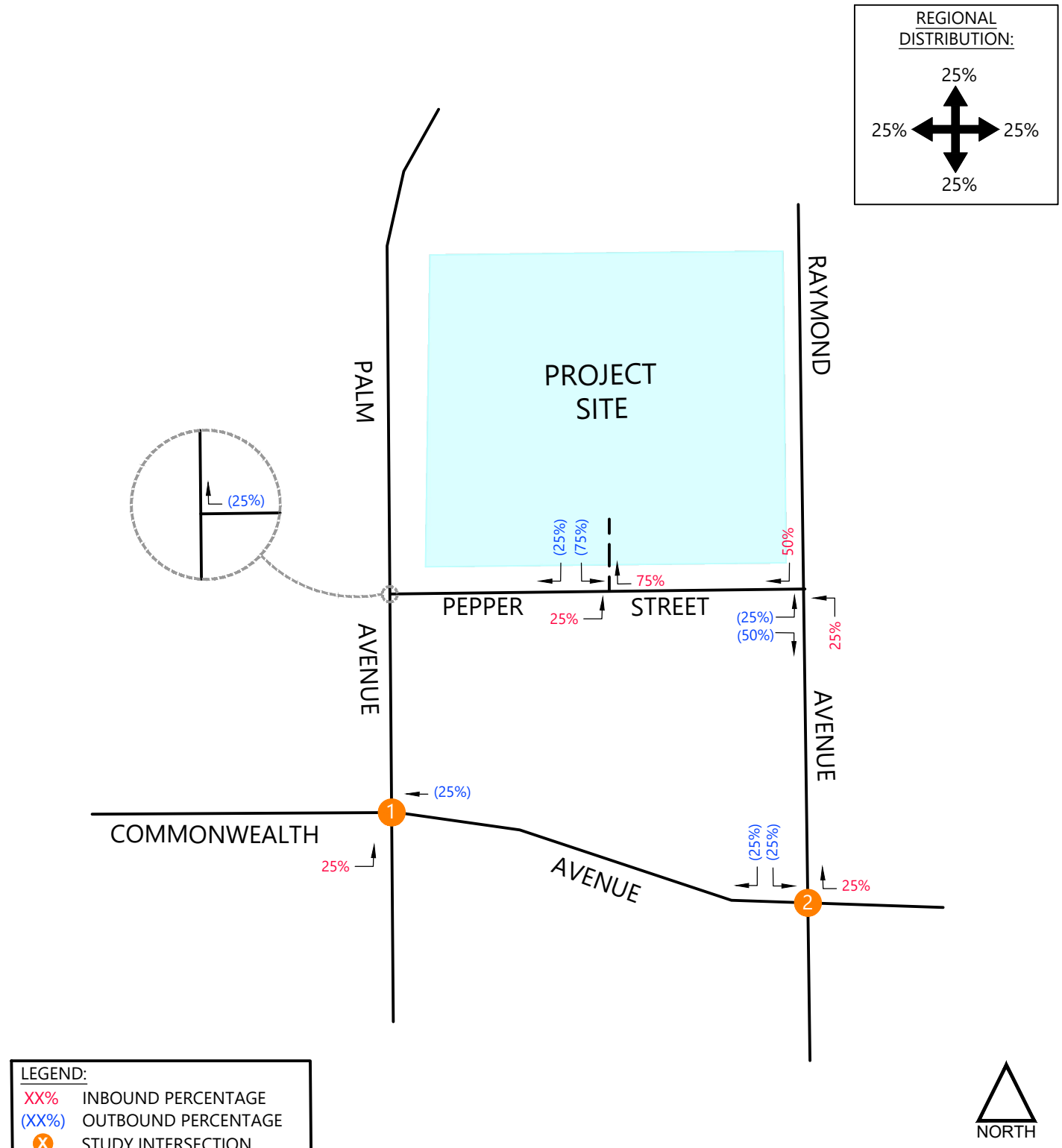

FIGURE 5(b)

10/24/2022

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PROJECT TRIP DISTRIBUTION PERCENTAGES
EXISTING USE

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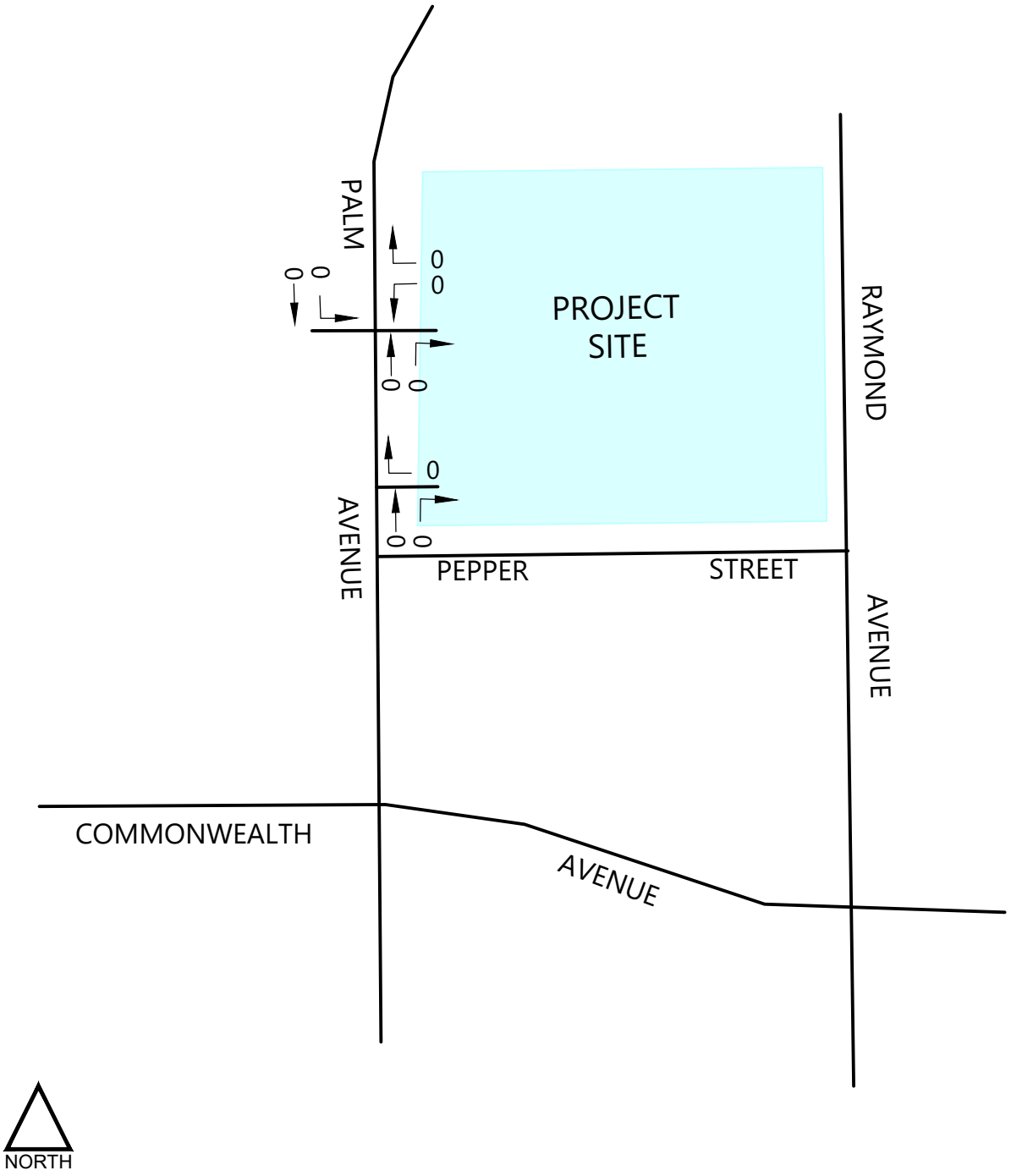

FIGURE 6(a)

10/24/2022

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PROJECT PASS-BY TRIP VOLUMES
WEEKDAY AM PEAK HOUR

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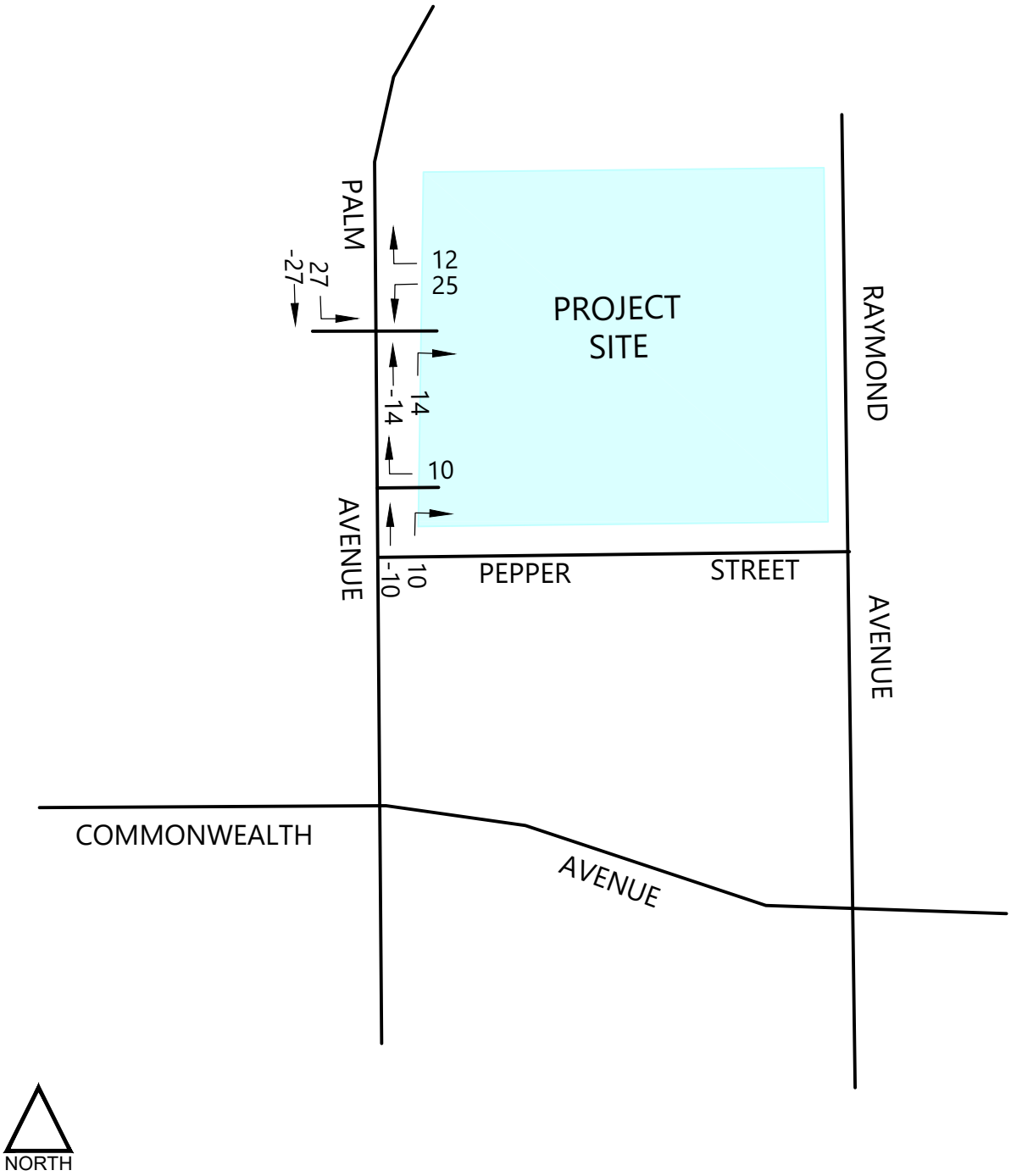

FIGURE 6(b)

10/24/2022

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PROJECT PASS-BY TRIP VOLUMES
WEEKDAY PM PEAK HOUR

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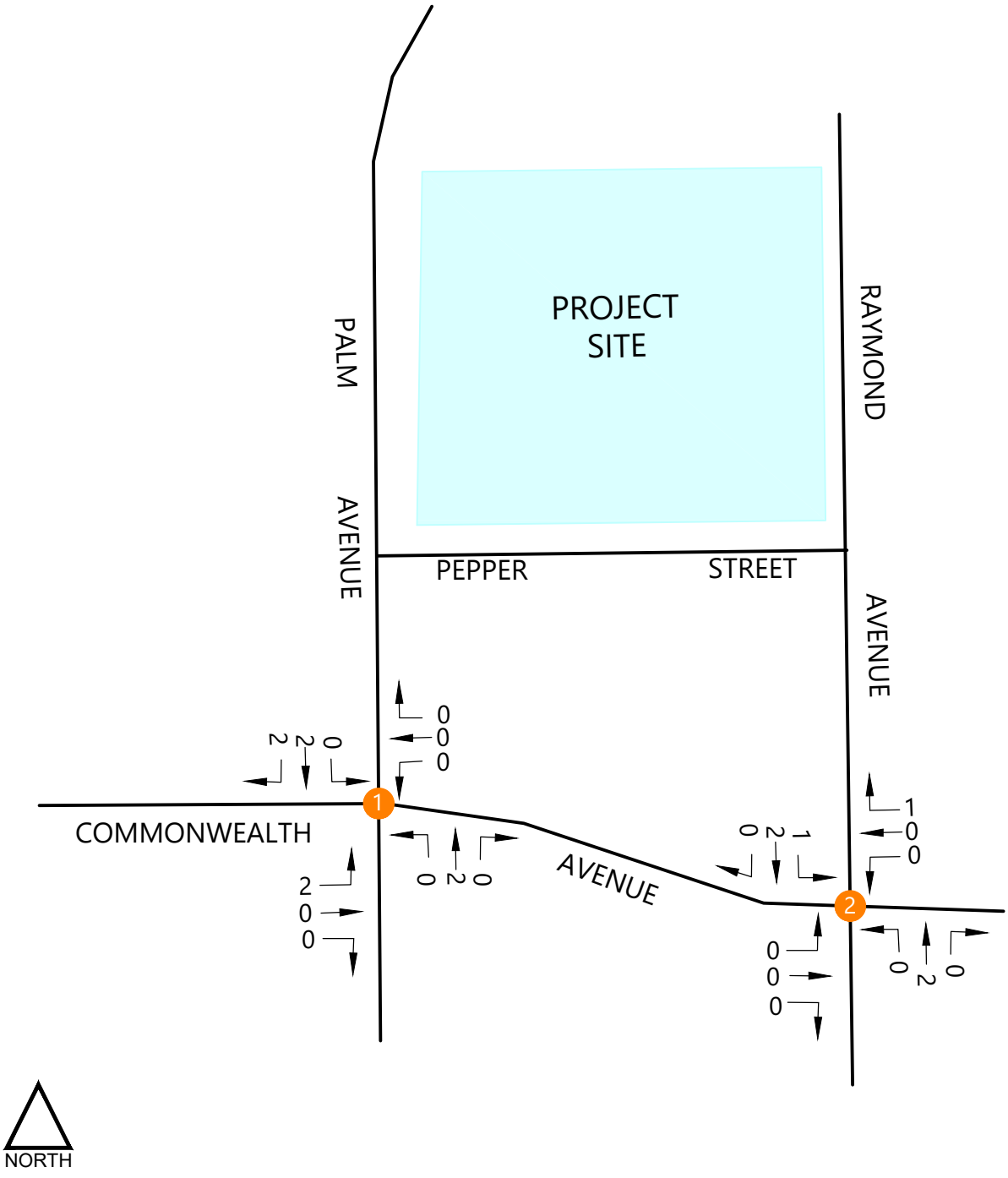

FIGURE 7(a)

10/24/2022

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NET PROJECT TRAFFIC VOLUMES
AM PEAK HOUR

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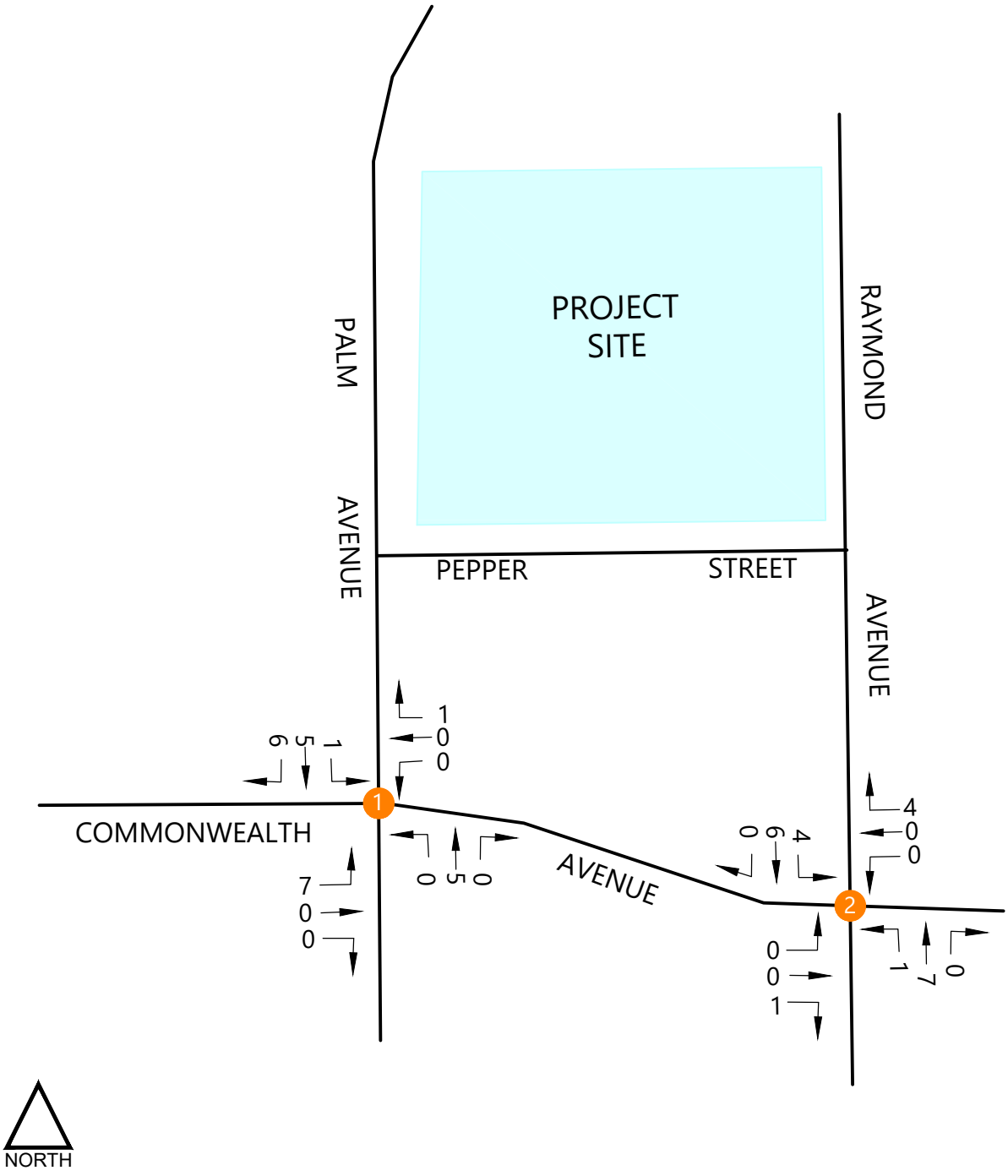

FIGURE 7(b)

10/24/2022

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NET PROJECT TRAFFIC VOLUMES
PM PEAK HOUR

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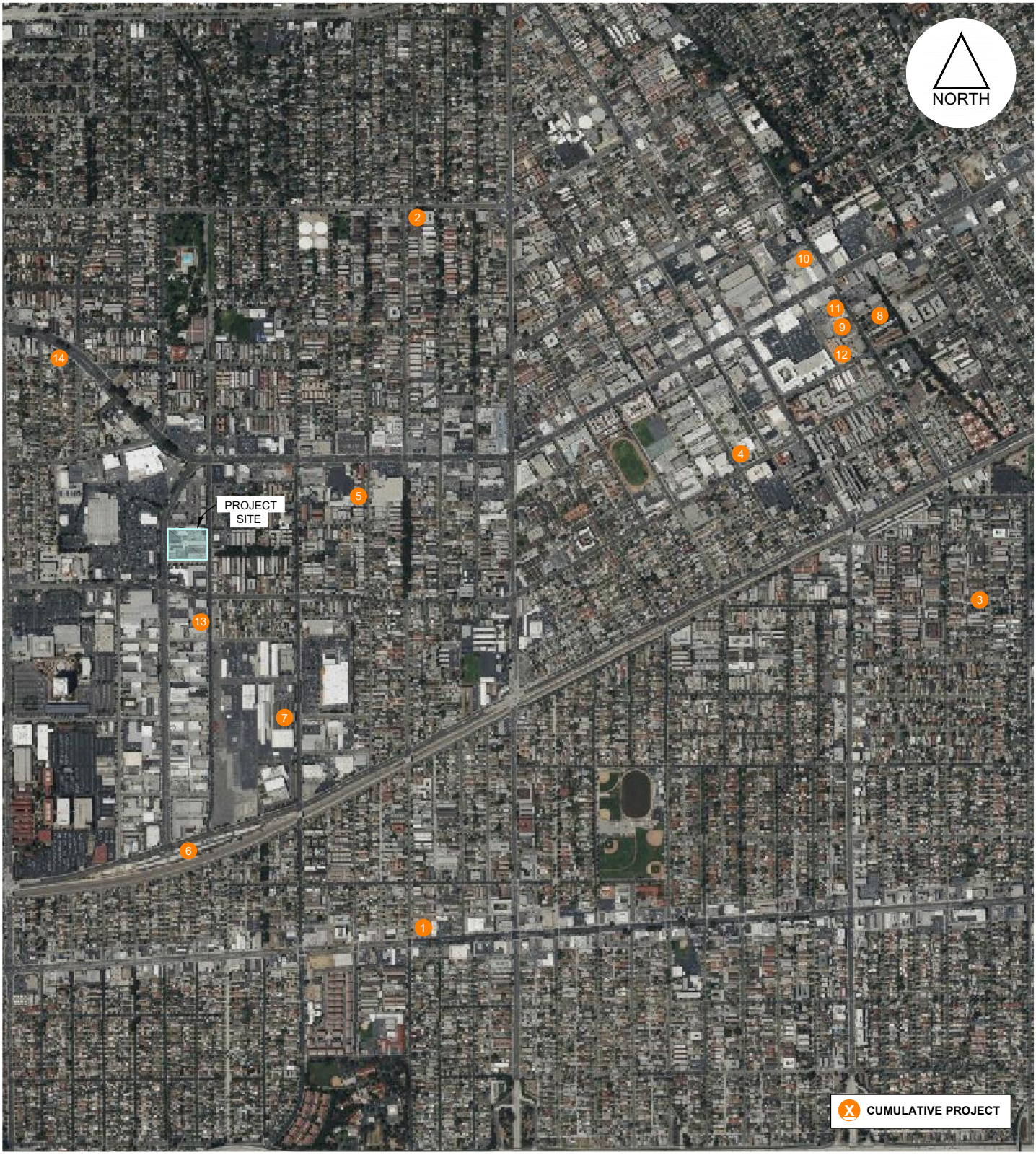

FIGURE 8

9/29/2022

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CUMULATIVE PROJECT LOCATION MAP

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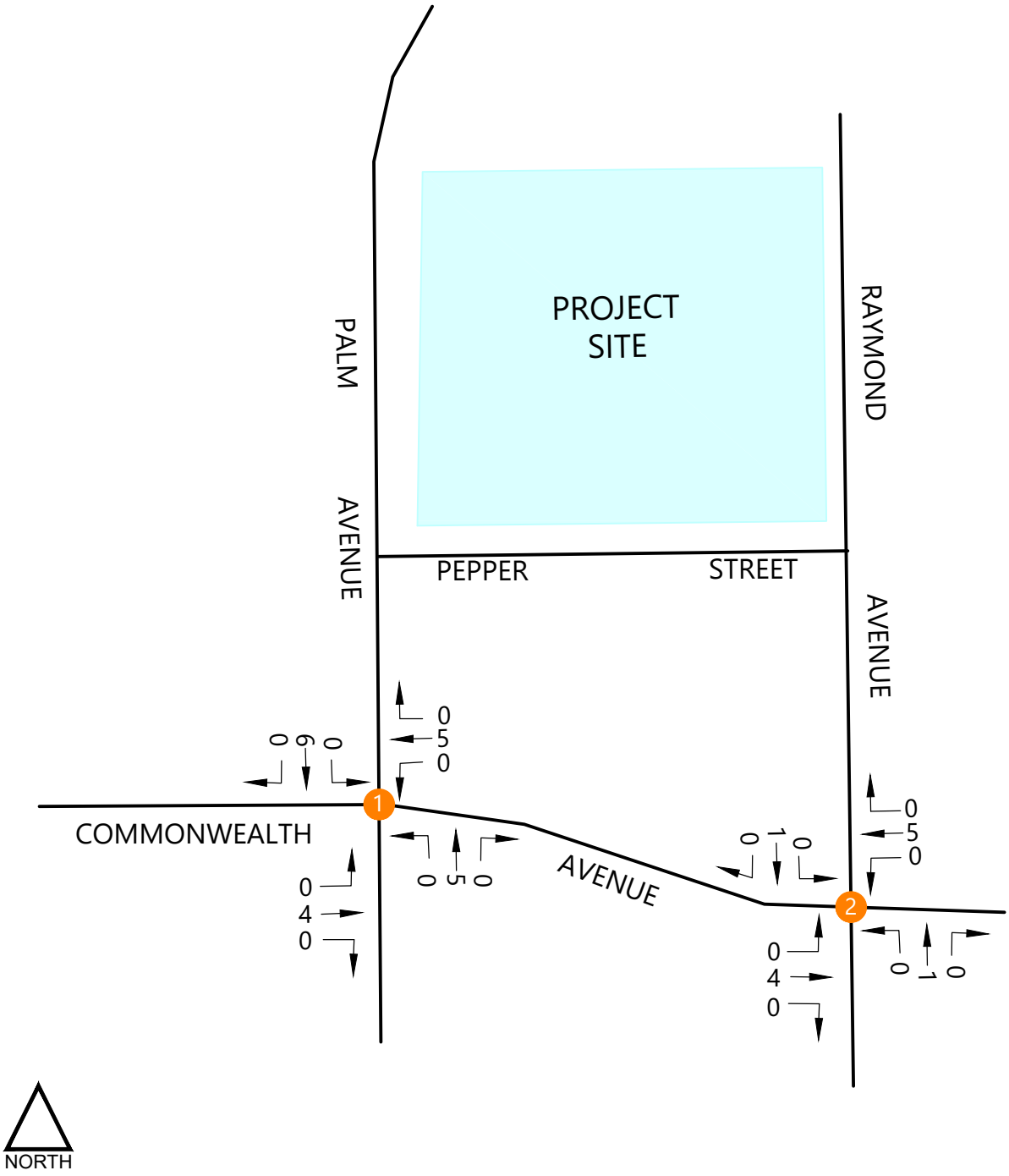

FIGURE 9(a)

10/24/2022

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TOTAL CUMULATIVE PROJECT TRAFFIC VOLUMES
AM PEAK HOUR

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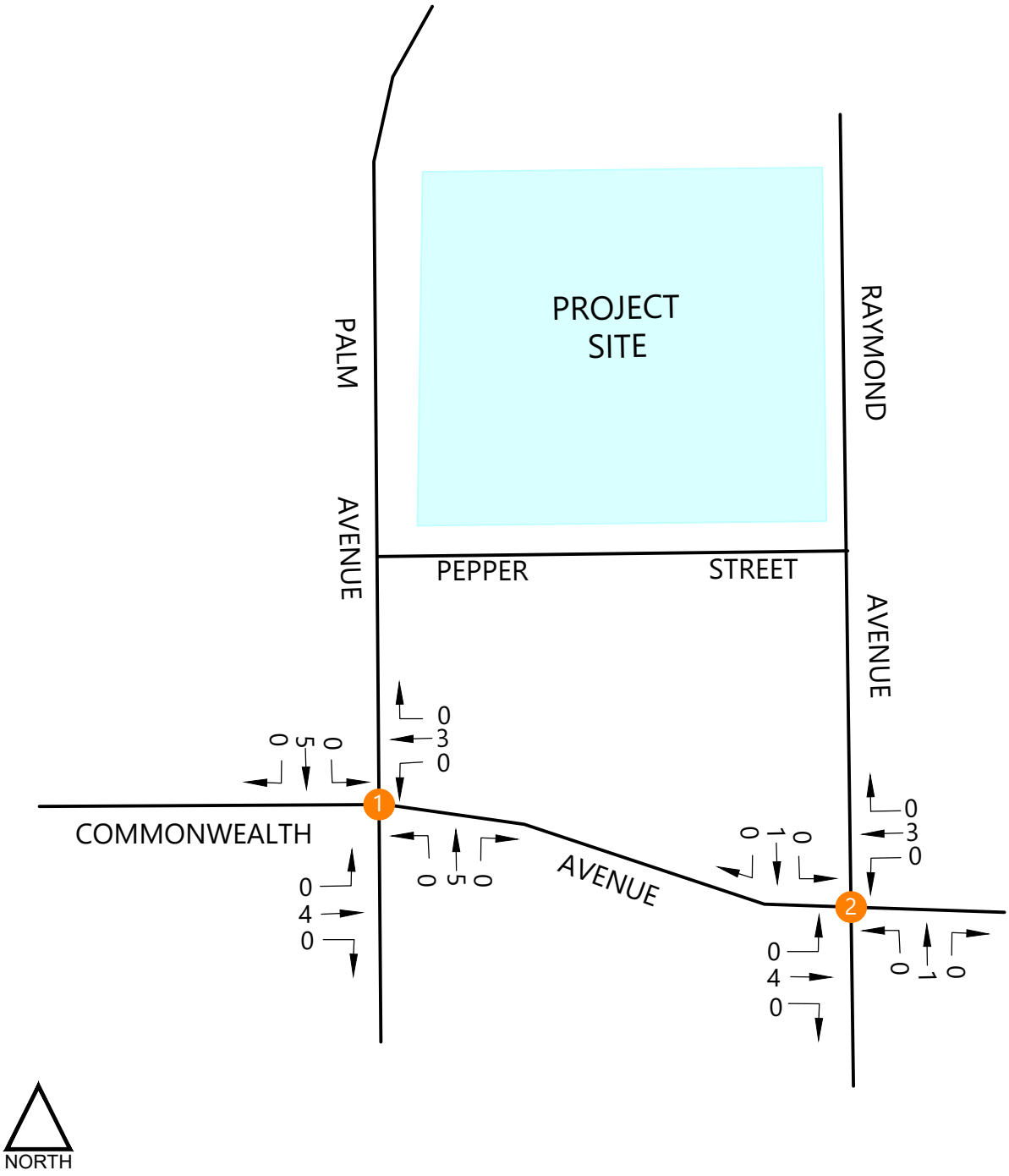

FIGURE 9(b)

10/24/2022

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TOTAL CUMULATIVE PROJECT TRAFFIC VOLUMES
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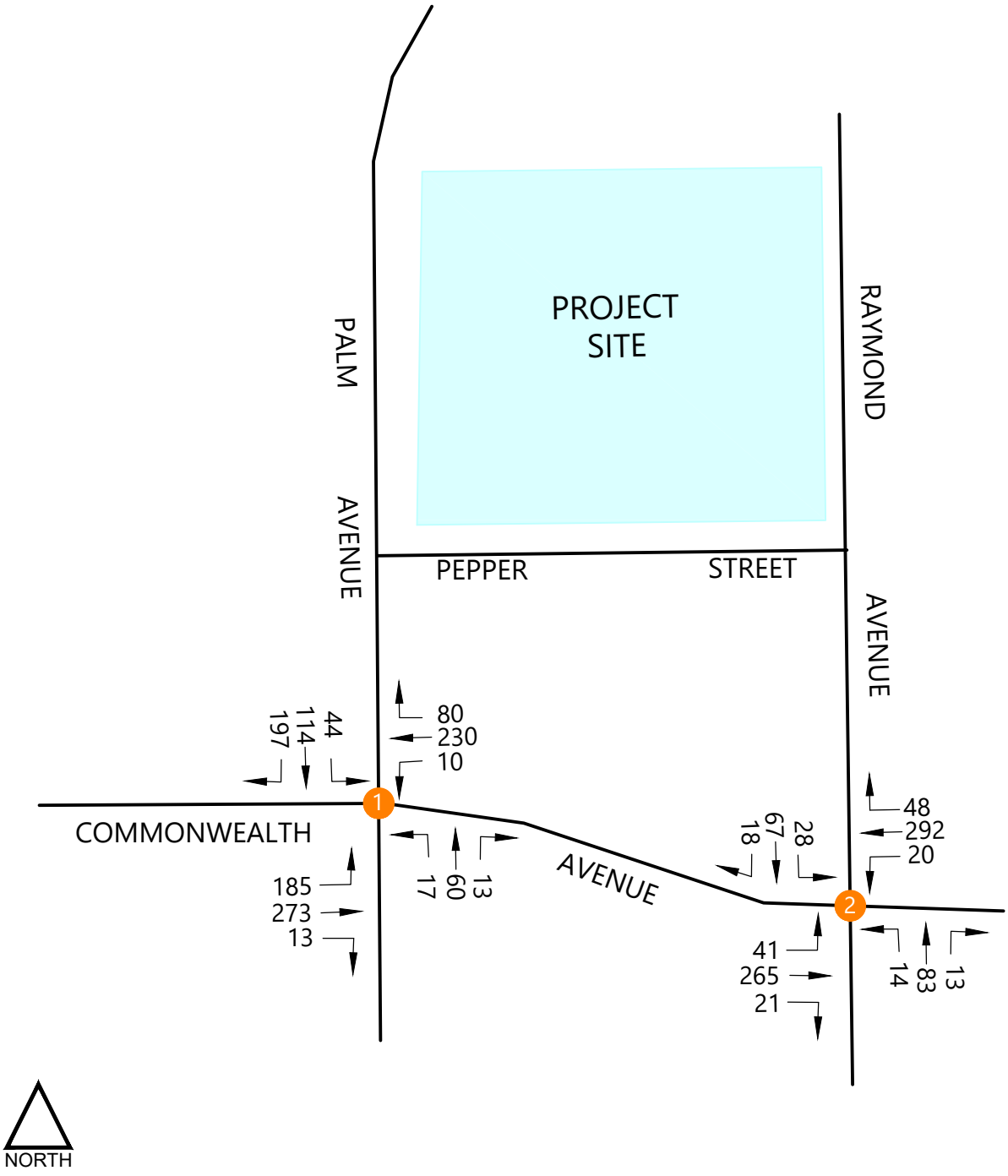

FIGURE 10(a)

10/25/2022

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FUTURE OPENING YEAR (2024) WITHOUT PROJECT TRAFFIC VOLUMES
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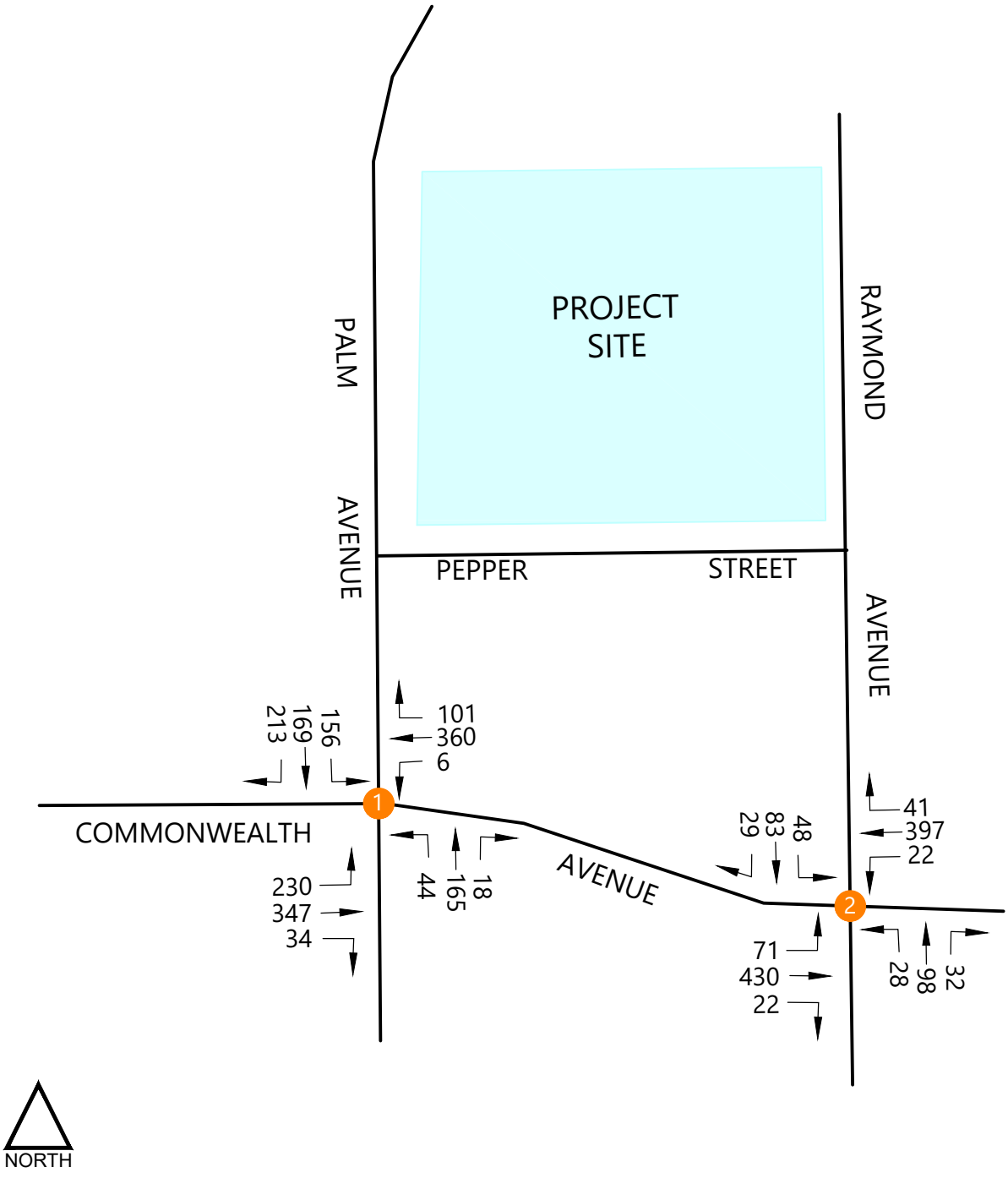

FIGURE 10(b)

10/25/2022

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FUTURE OPENING YEAR (2024) WITHOUT PROJECT TRAFFIC VOLUMES
PM PEAK HOUR

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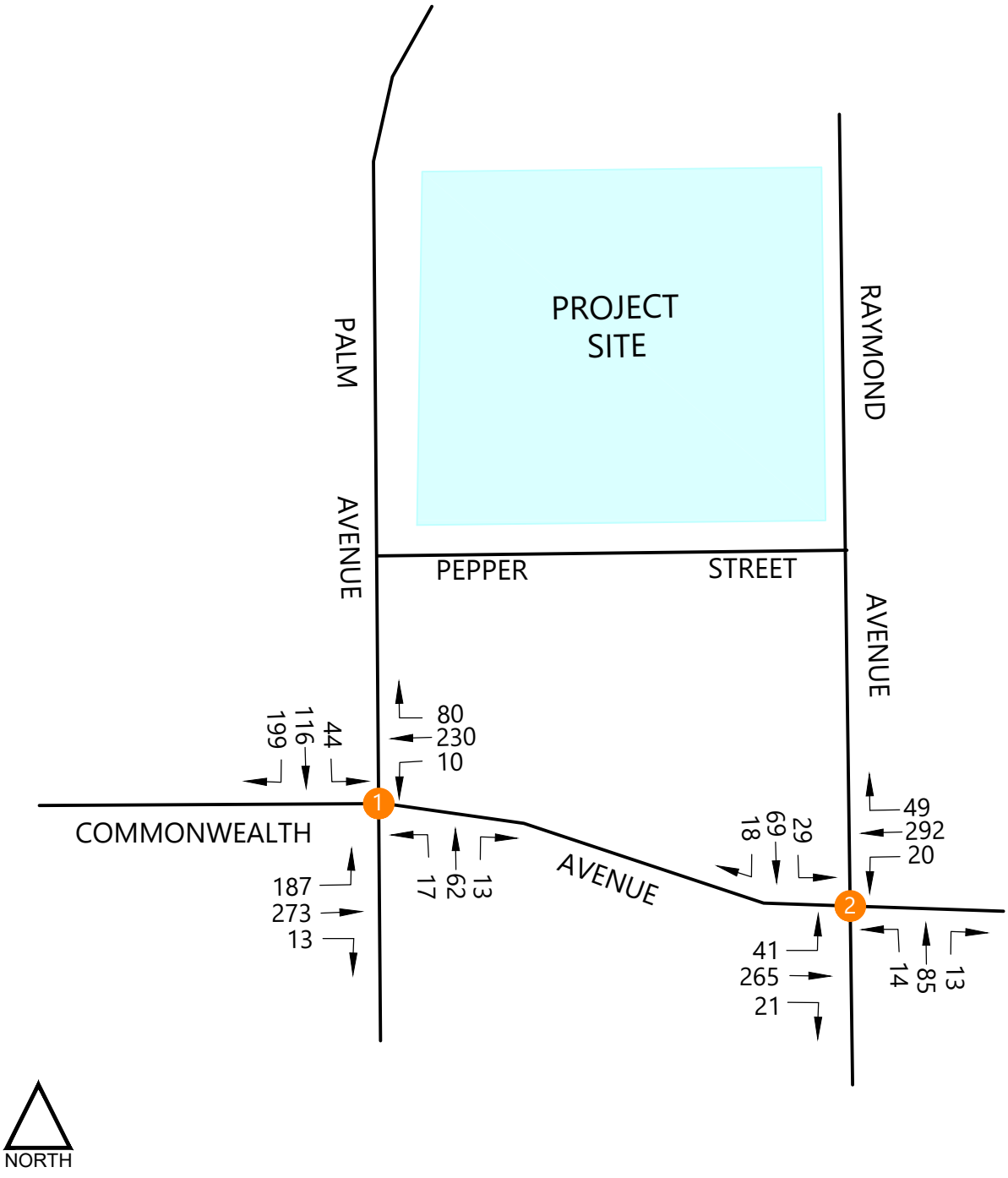

FIGURE 11(a)

10/25/2022

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FUTURE OPENING YEAR (2024) WITH PROJECT TRAFFIC VOLUMES
AM PEAK HOUR

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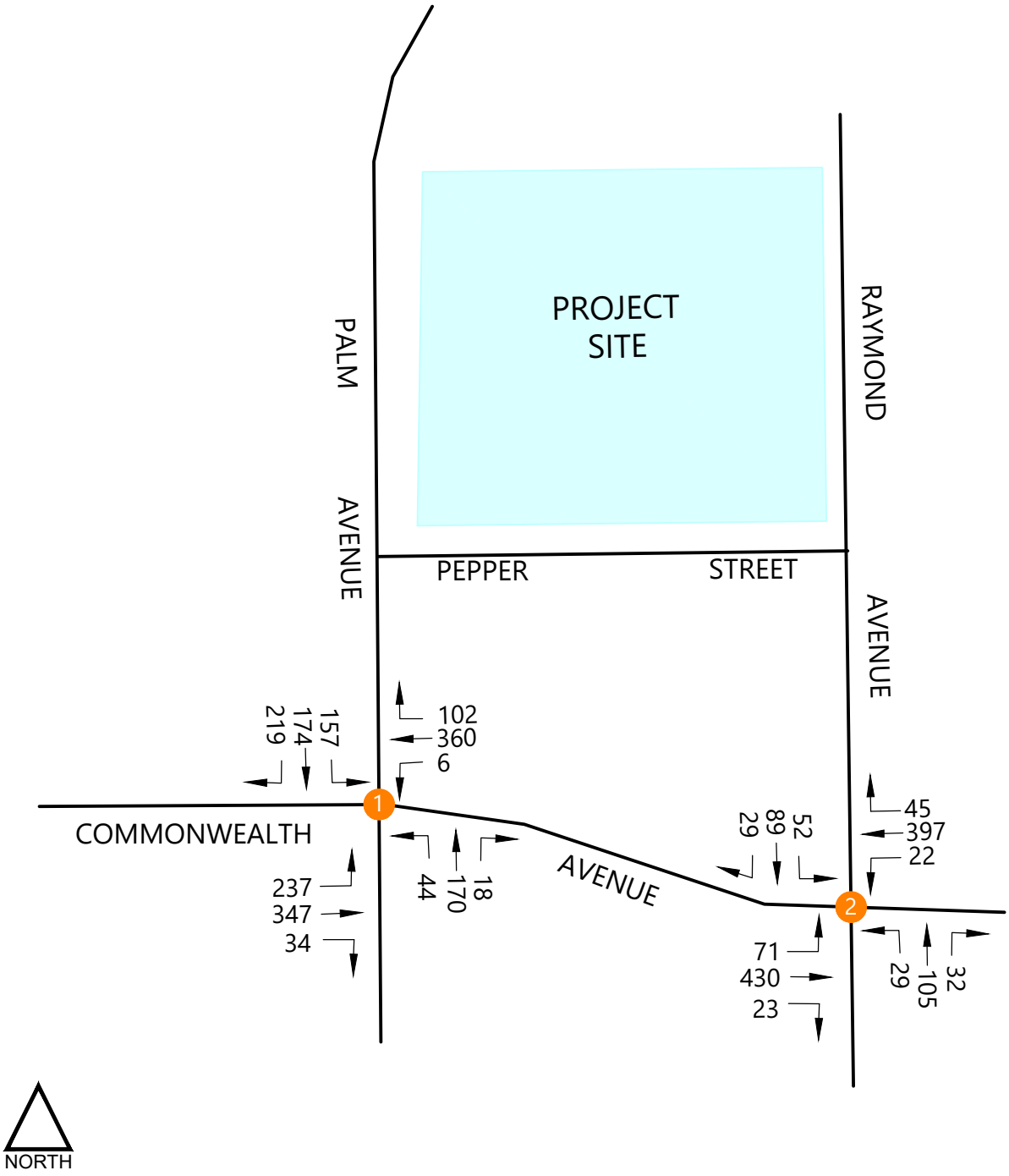

FIGURE 11(b)

10/25/2022

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FUTURE OPENING YEAR (2024) WITH PROJECT TRAFFIC VOLUMES
PM PEAK HOUR

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6. VEHICLE MILES TRAVELED ANALYSIS

Per the updated California Environmental Quality Act (CEQA) Guidelines, transportation impacts must now be determined based on an analysis of a development project's VMT impact. As of July 1, 2020, all land use projects within the State of California are required to prepare a VMT analysis. Per the City's TS Guidelines, and consistent with the State of California Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA,* screening criteria were first applied to determine if a VMT analysis would be required for the Project. The project-type screening criteria outlined in the TS Guidelines are listed below:

1. Projects located in a Transit Priority Area (TPA)
2. Projects located in a low-VMT generating area
3. Local-serving K-12 schools, local parks, and day care centers
4. Local-serving retail centers, gas stations, banks, and restaurants (under 50,000 square feet)
5. Local-serving hotels (e.g., non-destination hotels)
6. Local-serving assembly uses, places of worship, and community organizations
7. Community institutions such as libraries and fire stations
8. Affordable, assisted-living, and senior housing projects
9. Local-serving community colleges and student housing projects near campus
10. Public parking
11. Projects generating fewer than 110 daily vehicle trips

The Project, which consists of fast-food restaurant with drive-through window uses and a coffee/donut shop with drive-through window and no indoor seating use, will be comprised of only local-serving restaurant uses, with both the individual restaurant and total Project floor areas measuring well below 50,000 square feet. Therefore, Project development will reduce the distance that trips associated with these land uses will have to travel. These land use types are explicitly defined in the City's TS Guidelines as being screened from further VMT analysis. Therefore, the Project is presumed to have a less-than-significant VMT impact.

7. DRIVEWAY ACCESS ANALYSIS

Operations of the proposed driveways along Palm Avenue, Raymond Avenue, and Pepper Street were evaluated to determine potential turning movement restrictions to/from the Project site that may be required in order to maintain safe and efficient operation of the adjacent roadways. The Project is proposing three driveway locations along the east side of Palm Avenue. In addition to these driveways, the segment of Palm Avenue adjacent to the Project site currently features two driveways along the west side of the roadway that provide access to the neighboring Costco site. Due to the complexity of the driveway configurations along Palm Avenue, a microsimulation analysis was prepared using the SimTraffic software to simulate queuing and turning movements from these commercial driveways. The results of this analysis, as well as an evaluation of potential turning movement restrictions for each Project driveway, are presented in the following sections.

7.1 PALM AVENUE DRIVEWAY EVALUATION

In addition to the delay and LOS analysis that was conducted for the two study intersections, a queuing analysis was conducted to determine the turning movements that can be allowed in and out of Project driveways along Palm Avenue. Queuing conditions at the following Project driveways were evaluated:

1. Palm Avenue Main Driveway (central)
2. Palm Avenue North Driveway (vacated Teagarden Lane)
3. Palm Avenue South Driveway

As discussed previously, existing turning movement volumes were collected at the study intersections in May 2022 at the three proposed driveway intersections. As the two fast-food restaurant uses proposed as part of the Project are not open during the weekday AM peak hour, only weekday PM peak-hour conditions were evaluated as part of the microsimulation analysis. The data collection at the driveway intersections included the collection of turning movement volumes into and out of the Costco driveway locations opposite the Project's proposed driveways. At the time of the counts, only outbound trips were allowed from the Costco driveway serving as the north leg of the intersection of Date Avenue & Commonwealth Avenue, causing vehicles to divert to other Costco driveways for entrance (primarily those along Palm Avenue). Thus, as discussed with City staff, inbound vehicular trips to the Costco site were redistributed through the study area to the closed driveway to approximate traffic volumes at the Costco driveway intersections under typical conditions.

Following a methodology similar to that described in Section 5.4 of this report, future traffic volumes at the Project driveway intersections were developed accounting for ambient traffic growth and cumulative project traffic volumes. Once the future intersection traffic volumes were developed, the Project volumes at the Project driveway locations [determined using the Project trip generation, trip distributions presented in Table 5 and Figures 5(a) and 5(b), and Project pass-by trip volumes in Figure 6(b)] were added to develop the Future Opening Year (2024) With Project traffic volumes at the Project driveway locations. These volumes are shown in Figure 12 for the weekday PM peak hour. The Project microsimulation study assesses vehicle queuing on the Palm Avenue corridor as well as within the Project site, during the same weekday PM peak hour evaluated under the intersection LOS analysis.

These volumes were then used to establish a Synchro and SimTraffic model for the Future Opening Year (2024) With Project condition at the Palm Avenue driveway locations during the PM peak hour. Due to limitations in the SimTraffic software arising from the presence of closely spaced intersection, modifications to roadway configuration were made within the model.

For the purposes of this study, it was necessary to model the intersections of Palm Avenue & Pepper Street and Palm Avenue & Project South Driveway as a single intersection due to their proximity to one another. As such, turning movement volumes to and from Pepper Street and the Project South Driveway were combined into a single location. Queuing at this combined intersection was assumed to be representative of the queuing conditions at the Project's South Driveway. This step in the modeling process reflects a more conservative condition for the South Driveway, as greater traffic volumes are assumed to utilize this driveway.

In addition, while the Costco driveway opposite the Project Main Driveway is offset by approximately 50 feet, these driveways had to be evaluated as a single intersection. Upon Project completion, these driveways will largely operate as a single two-way stop-controlled (TWSC) intersection with offset minor street approaches. Opposing left-turn movements from Palm Avenue will not conflict with each other and through movements between driveways are expected to be minimal. Sufficient sight distance is provided for left-turn movements from the commercial driveways to identify and avoid conflicting movements from the opposing driveway. For this reason, modeling these driveways as a single intersection provides a representative condition of this intersection's future operations.

Using the outputs from a SimTraffic microsimulation, the 95th percentile vehicle queue results for each Project-related lane group at the Palm Avenue driveway locations are detailed in Table 9. The SimTraffic queue calculation worksheets are included in Appendix D. Queuing results are presented for only those queues that are associated with or may restrict access to or from the Project driveways. In the queuing analysis, the Project Main Driveway and North Driveway were evaluated as having full access, allowing left- and right-turns in and out. The Project South Driveway was modeled with right-turn only access and egress due to the raised center median preventing left-turn movements.

Table 9: Future Opening Year (2024) With Project Traffic Conditions
Palm Avenue Driveway Microsimulation Queuing Summary

Intersection	Peak Hour	Approach & Turning Movement[1]	Queue Length[2]
Palm Avenue & Commonwealth Avenue	PM	SBL	112
		SBT	115
		SBR	82
Palm Avenue & Project North Driveway	PM	SBL	14
		WB	34
Palm Avenue & Project Main Driveway	PM	SBL	41
		WB	63
Palm Avenue & Project South Driveway	PM	WBR	41

Notes: [1] SB = Southbound; WB = Westbound; L = Left-Turn; T = Through; R = Right-Turn.
[2] 95th percentile queue length in feet.

The Project Main Driveway is planned to be located approximately 180 feet south of Teagarden Lane. The driveway is located across from an existing Costco driveway on Palm Avenue. However, as discussed, the center of the Project Main Driveway is offset approximately 50 feet north of the Costco driveway, making the queuing analysis an important step in determining if the driveway can operate with full access. As shown in Table 9, during Future Opening Year (2024) With Project PM peak-hour conditions, the 95th percentile

vehicle queue length for the southbound left-turn movement into this driveway is expected to extend approximately 41 feet. The presence of the striped southbound left-turn lane at this driveway location provides a refuge for southbound vehicles accessing the Project site to queue without impeding the flow of southbound traffic along Palm Avenue. Thus, it is recommended that left-turn movements into the Project Main Driveway be permitted.

Additionally, the 95th percentile queue for westbound traffic exiting the Project Main Driveway is expected to be 63 feet, or approximately 2.5 vehicle lengths. While this queuing may occasionally block the Panda Express drive-through exit (as discussed in Section 9), this queuing is not expected to interfere substantially with circulation conditions within the Project site. Further, to ensure that extended queuing along Palm Avenue from the intersection with Commonwealth Avenue does not restrict left-turn movements from the Project Main Driveway, southbound queues at the intersection of Palm Avenue & Commonwealth Avenue were reviewed. Under Future Opening Year (2024) With Project conditions, the southbound queues from Commonwealth Avenue are expected to extend to 115 feet north of the intersection. As the Project Main Driveway is proposed to be located approximately 320 feet north of this Commonwealth Avenue, these queues are not expected to restrict left-turn movements from the Project Main Driveway. Therefore, it is recommended that left-turn movements be permitted exiting the Project Main Driveway.

In order to improve the safety of left-turn movements from both the Project Main Driveway and the opposing Costco driveway, the Project is proposing to install striping improvements at this intersection. The improvements will include cat tracks formalizing the lane divisions through the intersection, as depicted conceptually in Figure 13. These markings will provide flexible turning movements from the Project Main Driveway and the Costco driveway, while also guiding vehicles into the proper travel lanes. The striping changes will also push the terminus of the solid (side-by-side) left-turn lane striping to the north along Palm Avenue, formalizing an increased size for this intersection. The larger intersection will allow more perpendicular left-turn movements across the Palm Avenue left-turn pockets, enabling the vehicles exiting the commercial driveways to cross the opposing driveways as through movements along Palm Avenue. Thus, these striping improvements will serve as a safety improvement over the existing striping configuration along Palm Avenue.

The Project North Driveway is located at the two-way stop-controlled intersection of Palm Avenue & Teagarden Lane/Costco Driveway. As shown in Table 9, during the PM peak hour of Future Opening Year (2024) With Project conditions, the 95th percentile vehicle queue length for the southbound left-turn is expected to extend approximately 14 feet. Given the presence of side-by-side left-turn lanes on Palm Avenue at this intersection, this level of queuing does not pose an issue and left-turn movements into the Project North Driveway should be permitted. Further, the westbound 95th percentile queue for the Project North Driveway exiting traffic is expected to be approximately 34 feet. This level of queuing would result in minimal blockage of the parking spaces along Teagarden Lane. It should be noted that Teagarden Lane, which already dead-ends between Palm Avenue and Raymond Avenue, will be fully vacated as part of Project development. As such, the east leg of the intersection will function as a driveway for Project employee parking and not as a public-serving alley. Therefore, allowing left-turn movements from the Project North Driveway is recommended.

The Project South Driveway is proposed to be located approximately 30 feet north of Pepper Street and 260 feet north of Commonwealth Avenue. With the raised center median on Palm Avenue stretching across the South Driveway location, left-turn movements will not be allowed into or out of this driveway. In the Future Opening Year (2024) With Project PM peak hour scenario, 95th percentile vehicle queue lengths for westbound exiting traffic will extend approximately 41 feet. These expected vehicle queue lengths can comfortably be contained on the Project site.

7.2 RAYMOND AVENUE DRIVEWAY EVALUATION

The Main Driveway along Raymond Avenue is proposed to be located approximately 100 feet north of Pepper Street. Raymond Avenue operates as a low-speed, low-volume Local Street with parking permitted on both sides of the roadway. Several driveways are provided along both sides of Raymond Avenue, north and south of the Project site, for access to adjacent land uses. As discussed in the following section, sufficient sight distance is provided along this roadway in order for Project motorists entering and exiting the site to identify and avoid potential conflicting traffic. For these reasons, no turning movement restrictions are suggested for the Raymond Avenue Main Driveway.

7.3 PEPPER STREET DRIVEWAY EVALUATION

The driveway along Pepper Street is proposed to be located approximately 220 feet east of Palm Avenue. Adjacent to the site, Pepper Street is a 450-foot long Local Street segment with parking permitted on both sides of the roadway. All other driveways along this segment of Pepper Street are located on the opposite side of the roadway, which provides clear lines of sight for motorists exiting the Project site to identify conflicting traffic. As discussed in the following section, sufficient sight distance is provided along this roadway in order for Project motorists entering and exiting the site to identify and avoid potential conflicting traffic. For these reasons, no turning movement restrictions are recommended for the Pepper Street driveway.

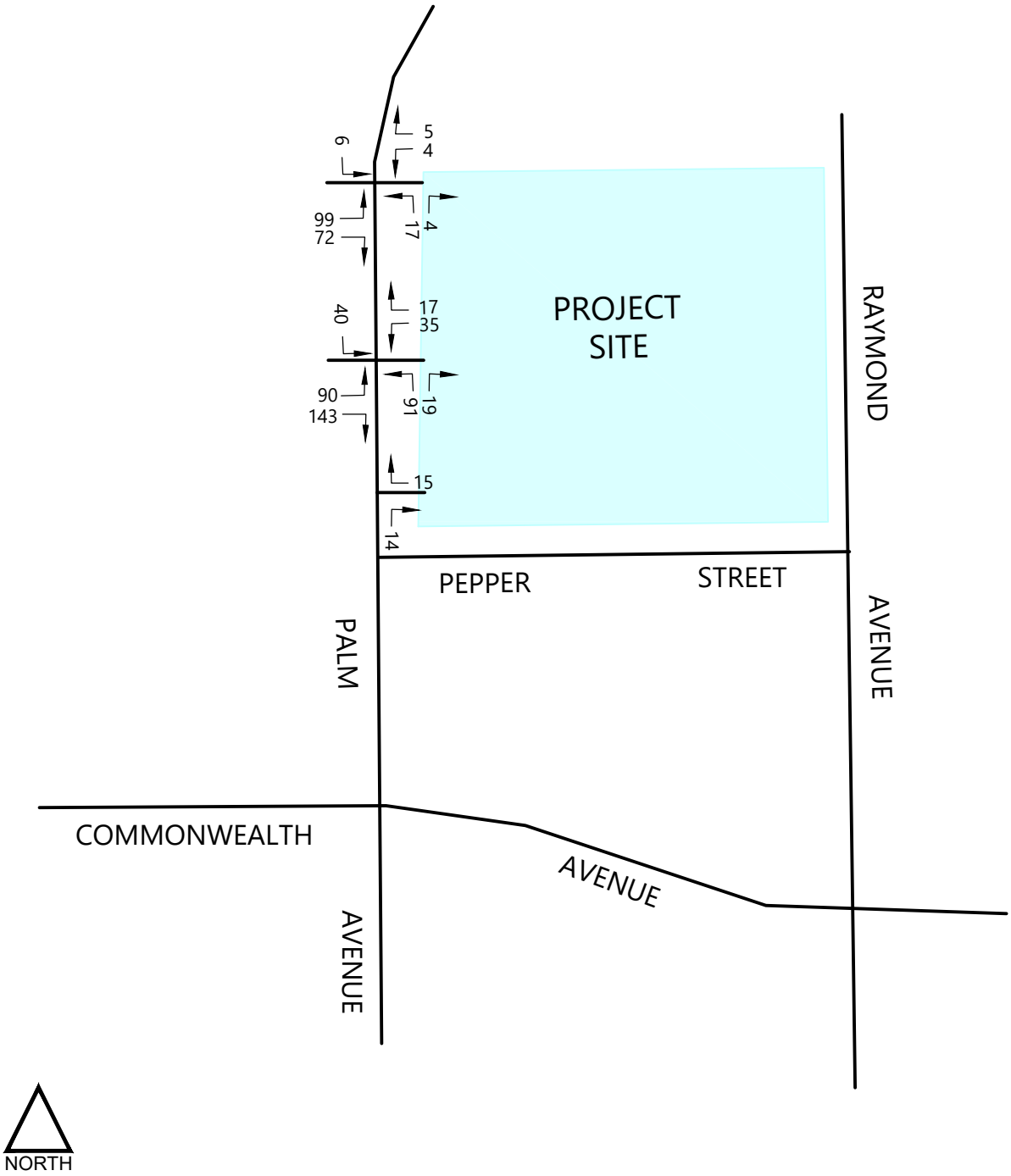

FIGURE 12

10/24/2022

J:\2022\JC28074 CFTPlazaAlhambraPalmAve&PepperSt\Graphics\DRIVEWAY-VOLS-PM2024WP

FUTURE OPENING YEAR (2024) TRAFFIC CONDITION
PALM DRIVE PROJECT AND COSTCO DRIVEWAY TURNING VOLUMES
WEEKDAY PM PEAK HOUR

300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.koacorp.com

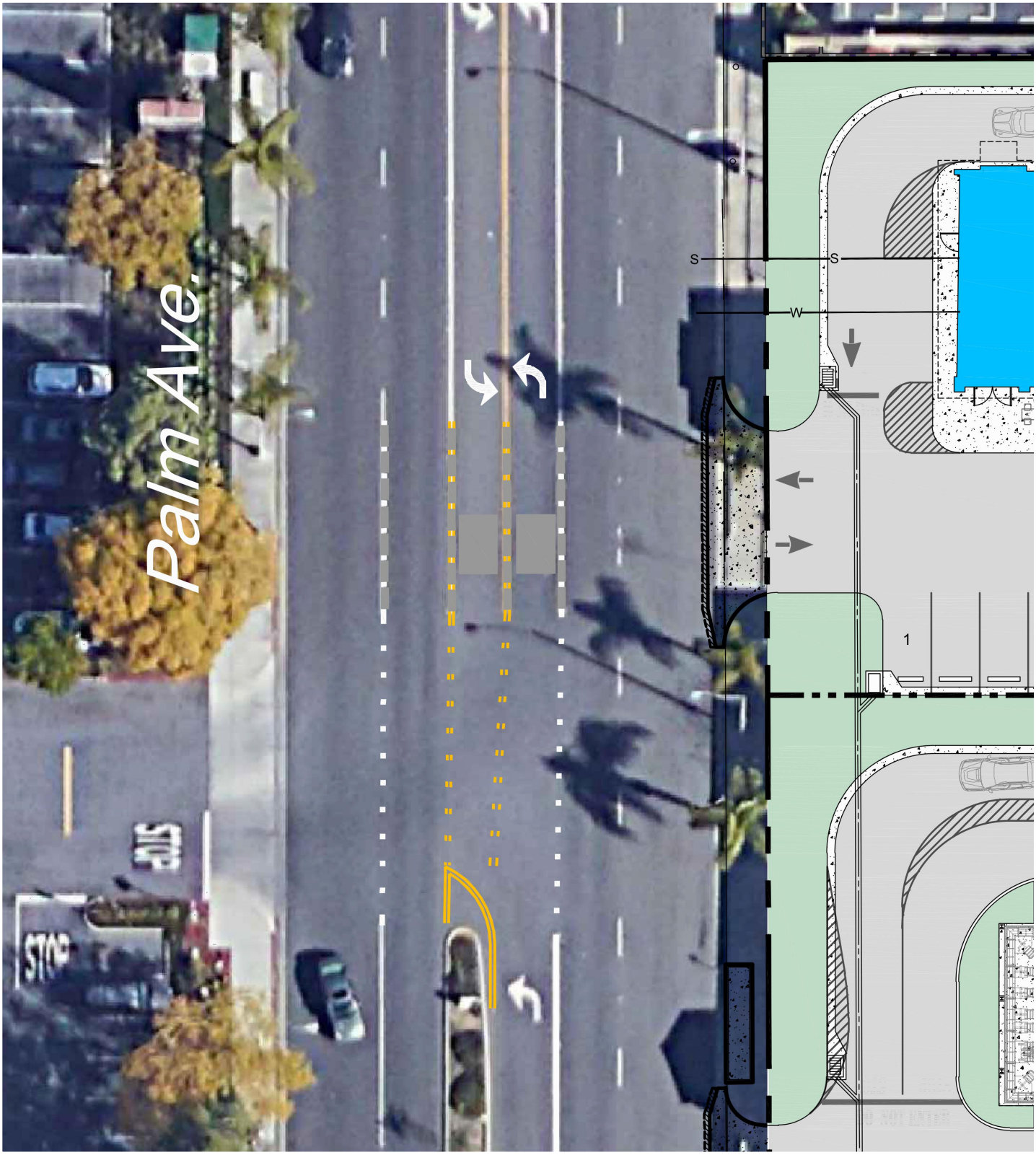

FIGURE 13

12/2/2022

J:\2022\JC28074 CFTPlazaAlhambraPalmAve&PepperSt\Graphics\PALM-AVE-STRP

PROPOSED PALM AVENUE LANE RESTRIPING

300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.koacorp.com

8. DRIVEWAY SIGHT DISTANCE ANALYSIS

As requested by the City Transportation Consultant in a Traffic Scoping memorandum dated April 6, 2022 (Appendix A), a sight distance analysis was prepared for the proposed Project driveways along Palm Avenue, Raymond Avenue, and Pepper Street. The results of the sight distance analysis are presented in Appendix E. All calculations were performed in general accordance with the requirements of the current version of the Caltrans Highway Design Manual (HDM). The Caltrans HDM was last updated on July 1, 2020.

Both stopping sight distance (SSD) and corner sight distance (CSD) measurements were performed at the proposed Project driveway locations and compared with minimum line-of-sight requirements. In brief, SSD is the distance required by a vehicle traveling along an uncontrolled roadway at the roadway's design speed to stop, on wet pavement, prior to striking an object in its travel path. CSD is the sight distance required by a driver entering or crossing an uncontrolled roadway from an intersecting roadway/driveway to perceive an oncoming vehicle and complete a turning or crossing maneuver without oncoming traffic substantially slowing or stopping. In accordance with Caltrans HDM standards, minimum SSD and CSD are to be provided on State facilities for all roadway intersections. This analysis accounts for the practice of minor-street motorists stopping at a limit line and then "creeping" forward to a point of visibility, which has long been recognized as "practical" under California law.

In order to complete the sight distance analysis, it was necessary to determine first the design speeds of Palm Avenue, Raymond Avenue, and Pepper Street. Where possible, the posted speed limit was assumed to be the roadway design speed. The segment of Palm Avenue adjacent to the Project site is designated as a Collector per the City's General Plan, with two travel lanes in each direction. While no posted speed limit is provided along this segment, a speed limit of 30 miles per hour (MPH) was assumed, in line with the speed limit along Main Street north of the Project site. Raymond Avenue has a posted speed limit of 25 MPH. While no speed limit is posted along Pepper Street adjacent to the site, this roadway is designated as a Local Street per the General Plan, thus a prima facie design speed of 25 MPH was assumed for this roadway.

Stopping Sight Distance – The minimum SSD standards are outlined in Index 201.3 of the Caltrans HDM. The required SSD for Palm Avenue is 200 feet based on the 30 MPH approach speed. Based on a 25 MPH design speed for Raymond Avenue and Pepper Street, the required SSD approaching their Project driveways is 150 feet. The minimum required SSD at the five Project driveway locations is summarized in Table 10.

Corner Sight Distance – As shown in Appendix E, the CSD was also measured for motorists making turning movements from the Project driveways onto adjacent roadways. The CSD standards for public and private roadway intersections are outlined in Index 405.1(2) and Table 405.1B of the Caltrans HDM. For private roadway intersections such as the Project driveways, the minimum CSD shall be equal to the SSD, as determined above. However, to be conservative, the minimum CSD based on the roadway design speed (for both left- and right-turns from the Project driveways) was also compared with the available line of sight. The minimum required CSD at the five Project driveway locations is summarized in Table 10.

Table 10: Project Driveway Minimum Stopping and Corner Sight Distances

Driveway	Design Speed (MPH)	Min. SSD (feet)[1]	Min. CSD (feet)[2]	
			Left-Turn	Right-Turn
Palm Avenue - Main Driveway	30	200	335	290
Palm Avenue - North Driveway (Teagarden Lane)	30	200	335	290
Palm Avenue - South Driveway[3]	30	200	-	290
Raymond Avenue - Main Driveway	25	150	280	240
Pepper Street Driveway	25	150	280	240

Notes:
[1] Per Caltrans *Highway Design Manual* Table 201.1.
[2] Per Caltrans *Highway Design Manual* Index 405.1, based on a time gap of 7.5 seconds for left-turn movements and 6.5 seconds for right-turn movements.
[3] Left-turn movements prohibited due to raised median along Palm Avenue.

A comparison of the available sight distance at the five Project driveways with the required SSD and CSD is shown graphically in Appendix E. The required SSD and CSD are compared with the available sight distance in Table 11. For the purposes of this analysis, it has been assumed that red curb markings will be installed on the (sides of the) roadways adjacent to the Project site, on both sides of proposed driveway locations.

As shown, along Palm Avenue, the curvature of the roadway north of the Project site limits the available sight distance for exiting vehicles making left-turns onto southbound Palm Avenue. The Project will set back landscaping along the east side of Palm Avenue in order to maintain clear sight lines to the north. The wide roadway and setback of buildings and landscaping aid in extending the sight distance for the Palm Avenue driveways. Looking to the north, both the required SSD and the CSD are met by the available sight distance at the Project's Main Driveway and South Driveway. At the Project North Driveway (vacated Teagarden Lane), the required SSD is met, but on-street parking north of the site restricts the sight lines to less than the required CSD. However, per the HCM, driveway intersections are only required to provide the minimum SSD. Thus, as the required SSD is met at this location and this driveway will only serve a limited number of employee parking spaces, left-turn egress from the Project North Driveway will be maintained.

Looking to the south along Palm Avenue, the roadway provides a straight alignment and building and landscaping setbacks provide extended lines for exiting Project motorists to identify oncoming northbound traffic. The required SSD and CSD are met by the available sight distance for all three Project driveways along Palm Avenue. The Project landscaping along the east side of Palm Avenue will maintain clear sight lines for exiting vehicles.

Raymond Avenue, along the east side of the Project site, provides a straight alignment both north and south of the Project Main Driveway, which allows for clear lines of sight in both directions. For this driveway, the SSD and the CSD requirements are met by the available sight distance in both directions. In addition, most driveways to other properties along Raymond Avenue are located along the east side of the street. This will allow Project motorists exiting the Main Driveway to identify potential conflicting traffic as vehicles turn onto Raymond Avenue from across the street.

The segment of Pepper Street along the south side of the Project site provides a straight alignment for an approximately 450-foot stretch between Palm Avenue and Raymond Avenue. While the required SSD can be provided at the Project driveway location, the required CSD cannot be provided due to the short nature of the segment. However, as approaching vehicles will have to turn onto Pepper Street before they approach the Project driveway, these vehicles will be traveling at a lower speed than the assumed 25 MPH design

speed (typically in the 10-15 MPH range) and thus the required CSD does not need to be met.

Table 11: Project Driveway Sight Distance Conditions

Driveway	Speed Limit (MPH)	Required Sight Distance (feet)		Available Sight Distance (feet)		Satisfied?	
		SSD[1]	CSD[2]	North/East	South/West	SSD	CSD
Palm Avenue - Main Driveway	30	200	335	396	410	Yes	Yes
Palm Avenue - North Driveway (Teagarden Lane)	30	200	335	230	561	Yes	No
Palm Avenue - South Driveway[3]	30	200	290	-	300	Yes	Yes
Raymond Avenue - Main Driveway	25	150	280	290	500	Yes	Yes
Pepper Street Driveway	25	150	280	200	214	Yes	NA

Notes:
[1] Per Caltrans *Highway Design Manual* Table 201.1.
[2] Per Caltrans *Highway Design Manual* Index 405.1, based on a time gap of 7.5 seconds for left-turn movements and 6.5 seconds for right-turn movements. Larger of the required CSD assumed.
[3] Left-turn movements prohibited due to raised median along Palm Avenue.

Based on the findings of the sight distance analysis at all five Project driveway locations, no turning movement restrictions are required in order to maintain safe lines of sight. Thus, no restrictions to turning movements at the Project driveway locations have been proposed, aside from the South Driveway on Palm Avenue operating as a right-turn-in/out only facility due to the presence of the raised median. In order to maintain the lines of sight demonstrated in the preceding analysis, red curb markings must be installed on roadways adjacent to the Project site and affected landscaping must be trimmed to below the standard driver's eye height of 3.5 feet.

9. DRIVE-THROUGH WINDOW QUEUING STUDY

As the proposed Project consists of three drive-through restaurants (two fast-food restaurants and one coffee shop), a queuing study was conducted in order to evaluate the potential vehicle queues associated with the drive-through window operations. The three restaurants proposed for the site are Panda Express, Raising Cane's, and Starbucks. Thus, queuing surveys were conducted at similar restaurants with drive-through windows to model the potential queuing associated with the Project. The two sites selected for the study were determined in coordination with Panda Express, Raising Cane's, and Starbucks management and were chosen as they are anticipated to generate similar levels of drive-through window traffic as the proposed locations. The survey locations are listed below:

Panda Express
- 558 Grand Avenue, Walnut, CA 91789
- 508 N. Lone Hill Avenue, San Dimas, CA 91773

Raising Cane's
- 5005 Paramount Boulevard, Pico Rivera, CA 90660
- 13602 Francisquito Avenue, Baldwin Park, CA 91706

Starbucks
- 9702 Lower Azusa Road, El Monte, CA 91731
- 10613 Garvey Road, El Monte, CA 91733

The time periods for data collection at these sites were determined based on the periods of peak drive-through demand at the restaurants, per data provided by restaurant management. At the two fast-food restaurant sites, queuing data were collected during the midday and evening peak periods on a typical weekday (Tuesday through Thursday) and during the evening peak period on a Saturday. At the coffee shop site, queuing data were collected during the morning peak period on both a typical weekday (Tuesday through Thursday) and a Saturday. The queuing surveys were performed during the periods summarized below in May 2022. During these periods, the maximum number of cars in the drive-through lane queue was recorded on five-minute intervals.

Panda Express
- Typical Weekday: 11:00 AM to 2:00 PM, 5:00 PM to 8:00 PM
- Saturday: 5:00 PM to 8:00 PM

Raising Cane's
- Typical Weekday: 10:30 AM to 1:30 PM, 5:00 PM to 8:00 PM
- Saturday: 5:00 PM to 8:00 PM

Starbucks
- Typical Weekday: 6:30 AM to 10:30 AM
- Saturday: 6:30 AM to 10:30 AM

The drive-through lane queuing data are summarized below, and the data collection sheets are presented in Appendix F. An evaluation of the queuing data in relation to the proposed drive-through capacities on the Project site is provided below.

Panda Express

As shown in Appendix F, at the Walnut location, the maximum queue on a typical weekday (Tuesday) occurred at 5:15 PM and consisted of 7 vehicles. On a weekend day (Saturday), the maximum queue of 6 vehicles was observed between 6:15 PM and 6:20 PM. At the San Dimas location, the maximum queue length was 9 vehicles at 11:25 AM and 6:10 PM on a typical weekday (Tuesday) and 6:15 PM, 7:30 PM, and 7:45 PM on a weekend day (Saturday). Therefore, the maximum drive-through queue observed across both surveyed locations was 9 vehicles.

The Project's proposed Panda Express restaurant is anticipated to generate a similar number of trips and serve customers at a similar rate as the surveyed Panda Express restaurants. Therefore, the Project's queuing potential would be similar to that of the surveyed restaurants. As shown in Figure 2 (Conceptual Project Site Plan), the proposed Panda Express restaurant in the northwest portion of the site will provide drive-through queuing capacity for up to 14 vehicle lengths before encroaching on the adjacent drive aisle. Therefore, based on the collected queuing data, the maximum anticipated queues will not exceed the proposed storage capacity of the Panda Express drive-through window facility.

Raising Cane's

As shown in Appendix F, at the Pico Rivera location, the maximum queue on a typical weekday (Tuesday) occurred at 7:50 PM and consisted of 19 vehicles. On a weekend day (Saturday), the maximum queue of 23 vehicles was observed between 7:50 PM and 7:55 PM. At the Baldwin Park location, the maximum queue lengths were 23 vehicles at 7:10 PM on a typical weekday (Tuesday) and 18 vehicles at 7:25 PM on a weekend day (Saturday). Therefore, the maximum drive-through queue observed across both surveyed locations was 23 vehicles.

The Project's proposed Raising Cane's restaurant is anticipated to generate a similar number of trips and serve customers at a similar rate as the surveyed Raising Cane's restaurants. Therefore, the Project's queuing potential would be similar to that of the surveyed restaurants. As shown in Figure 2 (Conceptual Project Site Plan), the proposed Raising Cane's restaurant in the southern portion of the site will provide drive-through queuing capacity for up to 25 vehicle lengths before interfering with the adjacent drive aisle. Therefore, based on the collected queuing data, the maximum anticipated queues will not exceed the proposed storage capacity of the Raising Cane's drive-through window facility.

Starbucks

As shown in Appendix F, at the El Monte location along Lower Azusa Road, the maximum queue on a typical weekday (Tuesday) occurred at 10:10 AM and consisted of 9 vehicles. On a weekend day (Saturday), the maximum queue of 12 vehicles was observed at 8:45 AM. At the El Monte location along Garvey Avenue, the maximum queues observed were 10 vehicles at 7:50 AM, 7:55 AM, and 9:00 AM on a typical weekday (Tuesday) and 11 vehicles at 8:40 AM and 9:35 AM on a weekend day (Saturday). Therefore, the maximum drive-through queue observed across both surveyed locations was 12 vehicles.

The Project's proposed Starbucks coffee shop is anticipated to generate a similar number of trips and serve customers at a similar rate as the surveyed Starbucks coffee shops. Therefore, the Project's queuing potential would be similar to the surveyed restaurants. As shown in Figure 2 (Conceptual Project Site Plan), the proposed Starbucks coffee shop in the northeast portion of the site will provide drive-through queuing capacity for up to 17 vehicle lengths. Therefore, based on the collected queuing data, the maximum anticipated queues will not exceed the proposed storage capacity of the Starbucks drive-through facility.

Therefore, based on the results of the drive-through queuing surveys and the proposed drive-through lane vehicle storage capacities on the site, queuing for all three restaurant drive-through windows is expected

to occur within their respective drive-through lanes and not extend into the surface parking lot. The drive-through queues, therefore, are not anticipated to interfere with circulation around the Project parking areas under typical conditions.

While the vehicle queuing associated with the drive-through facilities is not expected to exceed the available drive-through storage capacity, a back-up plan for special events and periods of higher-than-normal demand will be prepared for the Project uses. An example on-site traffic management plan for a similar Raising Cane's restaurant with drive-through window is presented in Appendix G and provides examples of the measures that can be enacted to ensure that the drive-through vehicle queues do not extend onto the local roadway network. The proposed Panda Express will employ similar strategies.

For the Starbucks coffee shop, various strategies will be available and utilized to manage temporal spikes in drive-through vehicle demand. The location will have handheld technology for use during peak times (if necessary). Employees will also be available to assist in managing the drive-through queue on the ground during peak times (if necessary). Starbucks is also constantly evolving its interior bar/engine and equipment to optimize speed of service, which ultimately helps to manage the drive-through queue. It should be noted that it has been Starbucks's experience that drive-through lanes are usually over-impacted for only very brief moments in time and, therefore, Starbucks takes an as-needed approach to vehicle queue management.

10. ON-SITE CIRCULATION REVIEW

In order to ensure that the Project's parking and drive-through facilities have been designed to accommodate the standard passenger vehicles expected to utilize the site, a review of on-site circulation conditions has been conducted. Turning movement template simulations for large passenger vehicles have been conducted for vehicles accessing and egressing the drive-through lane facilities and Project site driveways. In addition, a turning movement template simulation for the Raising Cane's delivery truck (the largest heavy vehicle anticipated to access the site) has been run to show that the delivery truck can safely access/egress the southern portion of the site via the driveways along Raymond Avenue and Palm Avenue. The large passenger vehicle and heavy vehicle swept path analyses are presented in Appendix H. Based on the results of this review, the Project parking and landscaping areas have been modified and adjusted to ensure that sufficient clearance is provided throughout the site to provide safe circulation for both large passenger vehicles and heavy trucks.

As discussed previously, queuing of exiting vehicles at the Project Main and South Driveways along Palm Avenue are expected to have 95th percentile vehicle queues of approximately 63 feet and 41 feet, respectively, during the PM peak hour under Future Opening Year (2024) traffic conditions. Based on these queue lengths, the drive-through lane exits of both the Panda Express and Raising Cane's restaurants may experience some blockages during peak periods. However, additional vehicle storage space within the drive-through lanes is provided between the drive-through pick-up window and drive-through exit. This will allow three to four vehicles to queue without impeding the drive-through operations at the Panda Express, and six to seven vehicles per lane to queue at the Raising Cane's. Thus, during periods when the queues of vehicles exiting the Project driveways may block the drive-through lane exits, the design of the drive-through facilities provides space in which vehicles can queue as they merge with Project driveway-exiting traffic, ensuring that these blockages will not result in spillover queuing effects within the drive-through facilities.

11. PARKING ANALYSIS

A review of the Project parking supply was conducted to ensure that sufficient parking is provided in order to meet the demand of the proposed uses. The proposed Project parking layout was shown previously in Figure 2. Per standard parking requirements outlined in the City's Municipal Code § 23.52.040, food service establishments (including restaurants, cafes, bars, and other eating and drinking establishments) shall provide one automobile parking space for every 120 square feet of gross floor area, with a minimum of five parking spaces. No loading spaces are required for commercial uses of less than 10,000 square feet. The City's Municipal Code does not provide specific parking requirements for fast-food restaurants.

A total of 6,953 square feet of fast-food restaurant and coffee shop floor area is proposed on the site as part of the Project. Conservatively assessing the parking requirements of each component restaurant separately, the Project will be required to provide a minimum of 59 parking spaces. The Project proposes to provide a total of 131 automobile parking spaces within the surface and employee parking lots. Therefore, the Project parking supply will meet the Municipal Code-required parking minimum. A breakdown of the Municipal Code required and provided parking by parcel is provided in Table 12 below.

Table 12: Project Automobile Parking Requirement and Supply

Restaurant	Gross Floor Area (sf)	Required Parking[1]	Provided Parking
Panda Express / Parcel 1	2,600	22	50
Raising Cane's / Parcel 2	3,181	27	49
Starbucks / Parcel 3	1,172	10	16
Employee Parking / Parcel 4	--	--	16
Total	*6,953*	*59*	*131*
Notes: [1] Per the City of Alhambra Municipal Code Section 23.52.040.			

In addition to a review of the Project parking supply, an evaluation was conducted of access to the Project parking spaces along the segment of Teagarden Lane to be vacated as part of Project development. Per the City's Municipal Code § 23.52.070 C.1, parking spaces shall not be located such that backing into alleys within 50 feet of any street is required. Teagarden Lane is currently designated as an alley. However, the segment of Teagarden Lane east of the Project site has been vacated and is occupied by the development at 117 Raymond Avenue. As part of the Project, the segment of Teagarden Lane adjacent to the Project site will be vacated and joined with Parcel 4 shown in Figure 2. For the parking spaces within this parcel, the Project will provide a total of 33 feet of backup space between the parking spaces and the northern edge of the site (17 feet adjacent to the parking spaces plus the 16-foot width of Teagarden Lane). This backup area provides sufficient area in order for vehicles to exit these parking spaces. Thus, through the vacation of this alley, the backup area provided within this Project parking area does not conflict with the City's Municipal Code.

12. RESPONSES TO COMMENTS

Following submittal of the FTA in December 2022, City staff and consultants reviewed the analysis and provided two rounds of comments. In response to those comments, two response-to-comments technical memoranda have been prepared and are provided as Appendices to this revised FTA. They are as follows:

- Appendix I – Draft Responses to Traffic Comments on the Focused Traffic Analysis, dated August 21, 2023
- Appendix J – Responses to Traffic Comments on the Focused Traffic Analysis, dated December 12, 2023

The information in Appendix I supersedes the Project information and analysis contained in the body of this FTA, and the information in Appendix J supersedes that included in Appendix I.

APPENDIX A

TRAFFIC SCOPING MEMORANDUM DATED APRIL 6, 2022

Date: April 6, 2022

To:	Paul Lam, Principal Planner Community Development Department 111 S. First St. | Alhambra, CA 91801 T: 626-570-5040 | F: 626-458-4201 plam@cityofalhambra.org	Pages:	2 pages
From:	Jana Robbins, PTP, RSP jana.robbins@transtech.org; T: 909-595-8599, 133	Job #:	TT 220356
Re:	Traffic Scoping for the Proposed Palm Avenue and Pepper Street Commercial Site that is Proposing 3 Separate Fast Food Restaurants to include a Raising Cane Restaurant with Drive-Thru, Potentially a Panda Express with Drive-Thru and a Drive-Thru Coffee House in the City of Alhambra CA	Cc:	Ali Cayir, City Engineer Bahman Janka, PE

We have reviewed the Site Plan for the Proposed Commercial project in regard to developing a Traffic Scoping Document which the applicants traffic engineer will submitted to the City for review.

In 2020 the City of Alhambra approved and adopted the use of SB 743 VMT guidelines as the most appropriate measure to use for determining transportation impacts as it relates to land use projects for CEQA analysis. The City also elected to maintain Level of Service criteria and standards for determining local impacts. This project will be required to submit a Focused Traffic Analysis.

There are three types of screening criteria that may be applied to see if a project screens from project-level VMT analysis for CEQA. One is if the project is in a Transit Priority Area, two if the project is in a Low VMT screened Area or Three a project is considered to be a local serving use and may be presumed to have a less than significant impact called Project Type Screening. Local serving projects that are retail in nature with a total square footage less than 50,000 square feet may be presumed to have a less than significant impact absent substantial evidence to the contrary. This project could assume to be screened from VMT analysis for CEQA by Project Type. However, the applicant should include in their Focused Traffic Analysis justification for being considered as a local serving project. With a write up on how users, customers and employees would be from within the community, thus meeting existing demand and not creating new vehicle trips.

A focused traffic study should include the following items:

1. Level of Service Analysis following City of Alhambra Traffic Study Guidelines. The analysis should include the following 3 intersections:
    1. Palm Avenue at Commonwealth Avenue
    2. Raymond Avenue at Commonwealth Avenue
    3. Date Avenue at Commonwealth Avenue

   Scenarios to include:

- Existing Conditions
- Opening year without Project (amb growth + any cumulative projects)
- Opening year with project

2. New Existing Intersection counts
3. Trip Generation for Each use
4. Trip Distribution and Assignment at each Studied Intersection as well as each Project Driveway
5. On-Site Parking Analysis
   - Code versus provided for each use
   - In looking at the site plan there are some concerns with parking along the Teagarden Lane which is an alley. It appears that employee vehicles will be backing into the alley very close to Palm Avenue.
6. Access from each project driveway on Palm Avenue, Pepper Avenue as well as Raymond Avenue. The project driveways should be shown in relation to driveways on the opposite side of the street.
   - Turn Conflicts/Restrictions: will include the determination of some driveways being restricted to right turn in and right turn out
   - If full access is proposed at the main driveway off of Palm Avenue than left turn queueing as well as the safety of left turn exiting from the project driveway should be a discussion item. The flow from the Costco across the street opposite this driveway should be included in any driveway analysis or queuing.
7. Queuing Analysis for each proposed Drive-Thru.
   - The Canes facility will need to provide a queuing analysis based on other Cane restaurants drive-thru lanes to show there is sufficient stacking.
   - The Potential Panda Express will need to provide a queuing analysis for the drive-thru lanes to show that there is acceptable stacking within the lanes and there will not be a back-up to any travel lanes.
   - The potential Drive-Thru Coffee House. The drive-thru queue shown on the site plan does not appear to provide enough stacking in the drive-thru lane if a name brand coffee house such as Starbucks moves in. The applicant will need to provide a queuing analysis based on the specific data provided by a generic coffee house and a Starbucks. No queues will be allowed to form on any public street.
   - As part of the queuing analysis a back up plan for times when drive-thru queues exceed available stacking such as order takers in the line will need to be prepared for each use and submitted to the City for approval.
8. On Site Circulation – the site plan will need to be reviewed by the applicants Traffic Engineer for location of drive-thru exit areas. The drive-thru exit for the Panda appears to be very close to the main driveways exit. The exit from the drive-thru may be blocked by vehicles waiting to enter Palm Avenue. Also, a vehicle turning template will need to be shown on the site plan showing how a car will essentially be making a U turn to exit the Panda drive-thru and get in the driveway exit lane.
9. All project drive-ways onto City streets will need to have clear sight distance. This may include the height of proposed landscaping to parked cars on either side of the driveways.
10. VMT Screening justification.
11. Report signed and stamped by a registered engineer.

We look forward to assisting you with the processing of this project. If you have any questions or comments you can contact me via email at jana.robbins@transtech.org and CC City staff.

APPENDIX B

TRAFFIC VOLUME COUNT DATA WORKSHEETS

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City of Alhambra
N/S: Date Avenue
E/W: Commonwealth Avenue
Weather: Clear

File Name : 01_AHB_Date_Common_AM
Site Code : 04122411
Start Date : 5/5/2022
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Trucks - Buses

	Date Avenue Southbound				Commonwealth Avenue Westbound				Date Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	5	19	24	48	20	33	0	53	7	0	16	23	0	53	11	64	188
07:15 AM	11	24	28	63	20	36	0	56	8	0	24	32	0	54	9	63	214
07:30 AM	5	16	29	50	24	56	0	80	6	0	19	25	1	68	9	78	233
07:45 AM	18	19	24	61	35	79	0	114	6	0	34	40	0	86	11	97	312
Total	39	78	105	222	99	204	0	303	27	0	93	120	1	261	40	302	947
08:00 AM	11	10	34	55	28	69	0	97	7	0	38	45	0	82	15	97	294
08:15 AM	14	19	29	62	27	71	0	98	5	0	24	29	0	73	13	86	275
08:30 AM	12	19	36	67	22	64	0	86	15	0	20	35	1	55	7	63	251
08:45 AM	13	15	31	59	23	62	0	85	7	0	37	44	0	71	10	81	269
Total	50	63	130	243	100	266	0	366	34	0	119	153	1	281	45	327	1089
Grand Total	89	141	235	465	199	470	0	669	61	0	212	273	2	542	85	629	2036
Apprch %	19.1	30.3	50.5		29.7	70.3	0		22.3	0	77.7		0.3	86.2	13.5		
Total %	4.4	6.9	11.5	22.8	9.8	23.1	0	32.9	3	0	10.4	13.4	0.1	26.6	4.2	30.9	
Passenger Vehicles	89	139	232	460	197	452	0	649	59	0	210	269	2	526	83	611	1989
% Passenger Vehicles	100	98.6	98.7	98.9	99	96.2	0	97	96.7	0	99.1	98.5	100	97	97.6	97.1	97.7
Heavy Trucks	0	2	3	5	2	3	0	5	2	0	2	4	0	3	1	4	18
% Heavy Trucks	0	1.4	1.3	1.1	1	0.6	0	0.7	3.3	0	0.9	1.5	0	0.6	1.2	0.6	0.9
Buses	0	0	0	0	0	15	0	15	0	0	0	0	0	13	1	14	29
% Buses	0	0	0	0	0	3.2	0	2.2	0	0	0	0	0	2.4	1.2	2.2	1.4

	Date Avenue Southbound				Commonwealth Avenue Westbound				Date Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**18**	**19**	24	61	**35**	**79**	0	**114**	6	0	34	40	0	**86**	11	**97**	**312**
08:00 AM	11	10	34	55	28	69	0	97	7	0	**38**	**45**	0	82	**15**	97	294
08:15 AM	14	19	29	62	27	71	0	98	5	0	24	29	0	73	13	86	275
08:30 AM	12	19	**36**	**67**	22	64	0	86	**15**	0	20	35	**1**	55	7	63	251
Total Volume	55	67	123	245	112	283	0	395	33	0	116	149	1	296	46	343	1132
% App. Total	22.4	27.3	50.2		28.4	71.6	0		22.1	0	77.9		0.3	86.3	13.4		
PHF	.764	.882	.854	.914	.800	.896	.000	.866	.550	.000	.763	.828	.250	.860	.767	.884	.907

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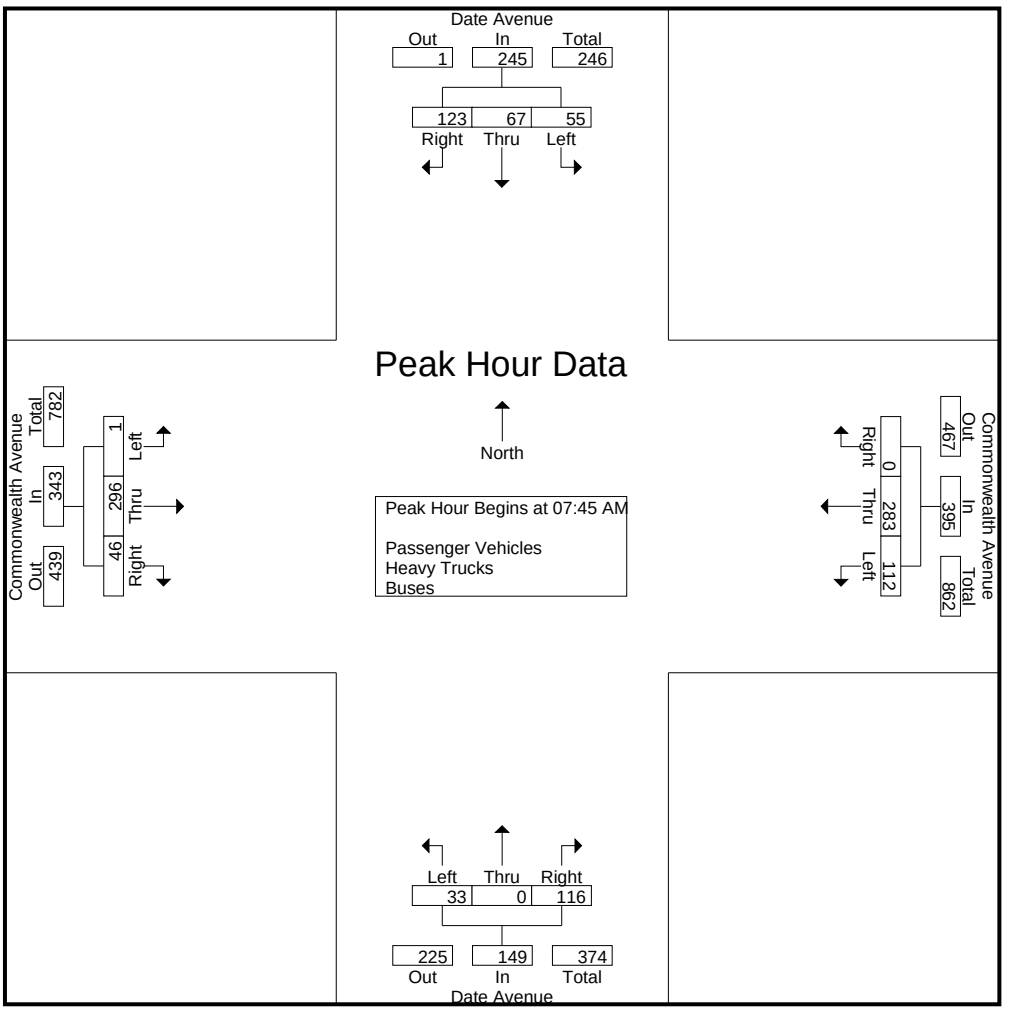

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				08:00 AM				07:30 AM			
+0 mins.	**18**	**19**	24	61	**35**	**79**	0	**114**	7	0	**38**	**45**	**1**	68	9	78
+15 mins.	11	10	34	55	28	69	0	97	5	0	24	29	0	**86**	11	**97**
+30 mins.	14	19	29	62	27	71	0	98	**15**	0	20	35	0	82	**15**	97
+45 mins.	12	19	**36**	**67**	22	64	0	86	7	0	37	44	0	73	13	86
Total Volume	55	67	123	245	112	283	0	395	34	0	119	153	1	309	48	358
% App. Total	22.4	27.3	50.2		28.4	71.6	0		22.2	0	77.8		0.3	86.3	13.4	
PHF	.764	.882	.854	.914	.800	.896	.000	.866	.567	.000	.783	.850	.250	.898	.800	.923

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Groups Printed- Passenger Vehicles

	Date Avenue Southbound				Commonwealth Avenue Westbound				Date Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	5	19	24	48	20	30	0	50	6	0	16	22	0	50	11	61	181
07:15 AM	11	22	27	60	20	35	0	55	8	0	24	32	0	52	9	61	208
07:30 AM	5	16	29	50	23	51	0	74	6	0	18	24	1	66	8	75	223
07:45 AM	18	19	23	60	35	76	0	111	6	0	34	40	0	84	11	95	306
Total	39	76	103	218	98	192	0	290	26	0	92	118	1	252	39	292	918
08:00 AM	11	10	33	54	27	68	0	95	7	0	38	45	0	80	15	95	289
08:15 AM	14	19	29	62	27	69	0	96	5	0	24	29	0	71	12	83	270
08:30 AM	12	19	36	67	22	63	0	85	14	0	20	34	1	53	7	61	247
08:45 AM	13	15	31	59	23	60	0	83	7	0	36	43	0	70	10	80	265
Total	50	63	129	242	99	260	0	359	33	0	118	151	1	274	44	319	1071
Grand Total	89	139	232	460	197	452	0	649	59	0	210	269	2	526	83	611	1989
Apprch %	19.3	30.2	50.4		30.4	69.6	0		21.9	0	78.1		0.3	86.1	13.6		
Total %	4.5	7	11.7	23.1	9.9	22.7	0	32.6	3	0	10.6	13.5	0.1	26.4	4.2	30.7	

	Date Avenue Southbound				Commonwealth Avenue Westbound				Date Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**18**	**19**	23	60	**35**	**76**	0	**111**	6	0	34	40	0	**84**	11	**95**	**306**
08:00 AM	11	10	33	54	27	68	0	95	7	0	**38**	**45**	0	80	**15**	95	289
08:15 AM	14	19	29	62	27	69	0	96	5	0	24	29	0	71	12	83	270
08:30 AM	12	19	**36**	**67**	22	63	0	85	**14**	0	20	34	**1**	53	7	61	247
Total Volume	55	67	121	243	111	276	0	387	32	0	116	148	1	288	45	334	1112
% App. Total	22.6	27.6	49.8		28.7	71.3	0		21.6	0	78.4		0.3	86.2	13.5		
PHF	.764	.882	.840	.907	.793	.908	.000	.872	.571	.000	.763	.822	.250	.857	.750	.879	.908

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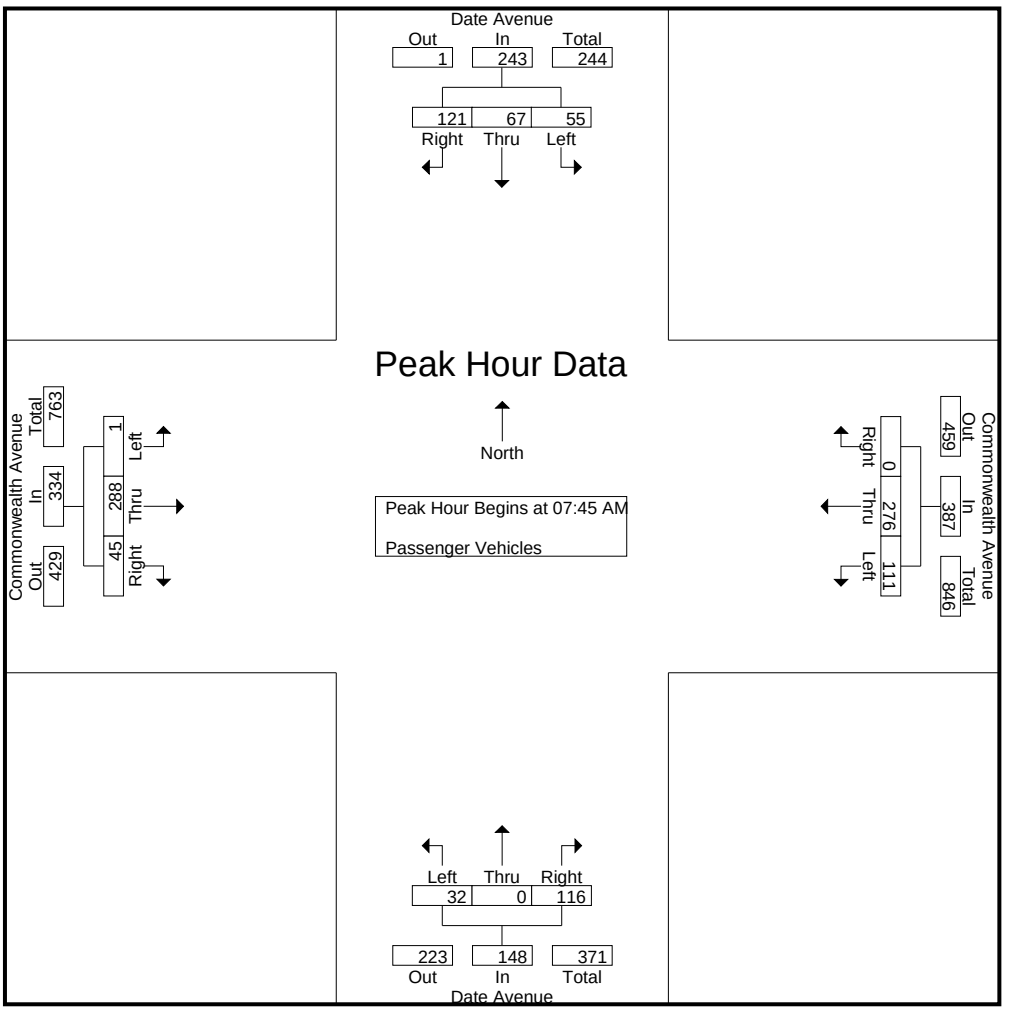

Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	**18**	**19**	23	60	**35**	**76**	0	**111**	6	0	34	40	0	**84**	11	**95**
+15 mins.	11	10	33	54	27	68	0	95	7	0	**38**	**45**	0	80	**15**	95
+30 mins.	14	19	29	62	27	69	0	96	5	0	24	29	0	71	12	83
+45 mins.	12	19	**36**	**67**	22	63	0	85	**14**	0	20	34	**1**	53	7	61
Total Volume	55	67	121	243	111	276	0	387	32	0	116	148	1	288	45	334
% App. Total	22.6	27.6	49.8		28.7	71.3	0		21.6	0	78.4		0.3	86.2	13.5	
PHF	.764	.882	.840	.907	.793	.908	.000	.872	.571	.000	.763	.822	.250	.857	.750	.879

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Groups Printed- Heavy Trucks

	Date Avenue Southbound				Commonwealth Avenue Westbound				Date Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	2	0	2	1	0	0	1	0	1	0	1	4
07:15 AM	0	2	1	3	0	0	0	0	0	0	0	0	0	1	0	1	4
07:30 AM	0	0	0	0	1	0	0	1	0	0	1	1	0	0	1	1	3
07:45 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	2	4	1	2	0	3	1	0	1	2	0	2	1	3	12
08:00 AM	0	0	1	1	1	0	0	1	0	0	0	0	0	1	0	1	3
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
08:45 AM	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2
Total	0	0	1	1	1	1	0	2	1	0	1	2	0	1	0	1	6
Grand Total	0	2	3	5	2	3	0	5	2	0	2	4	0	3	1	4	18
Apprch %	0	40	60		40	60	0		50	0	50		0	75	25		
Total %	0	11.1	16.7	27.8	11.1	16.7	0	27.8	11.1	0	11.1	22.2	0	16.7	5.6	22.2	

	Date Avenue Southbound				Commonwealth Avenue Westbound				Date Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	1	1	**1**	0	0	**1**	0	0	0	0	0	**1**	0	**1**	**3**
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0	1
Total Volume	0	0	2	2	1	0	0	1	1	0	0	1	0	1	0	1	5
% App. Total	0	0	100		100	0	0		100	0	0		0	100	0		
PHF	.000	.000	.500	.500	.250	.000	.000	.250	.250	.000	.000	.250	.000	.250	.000	.250	.417

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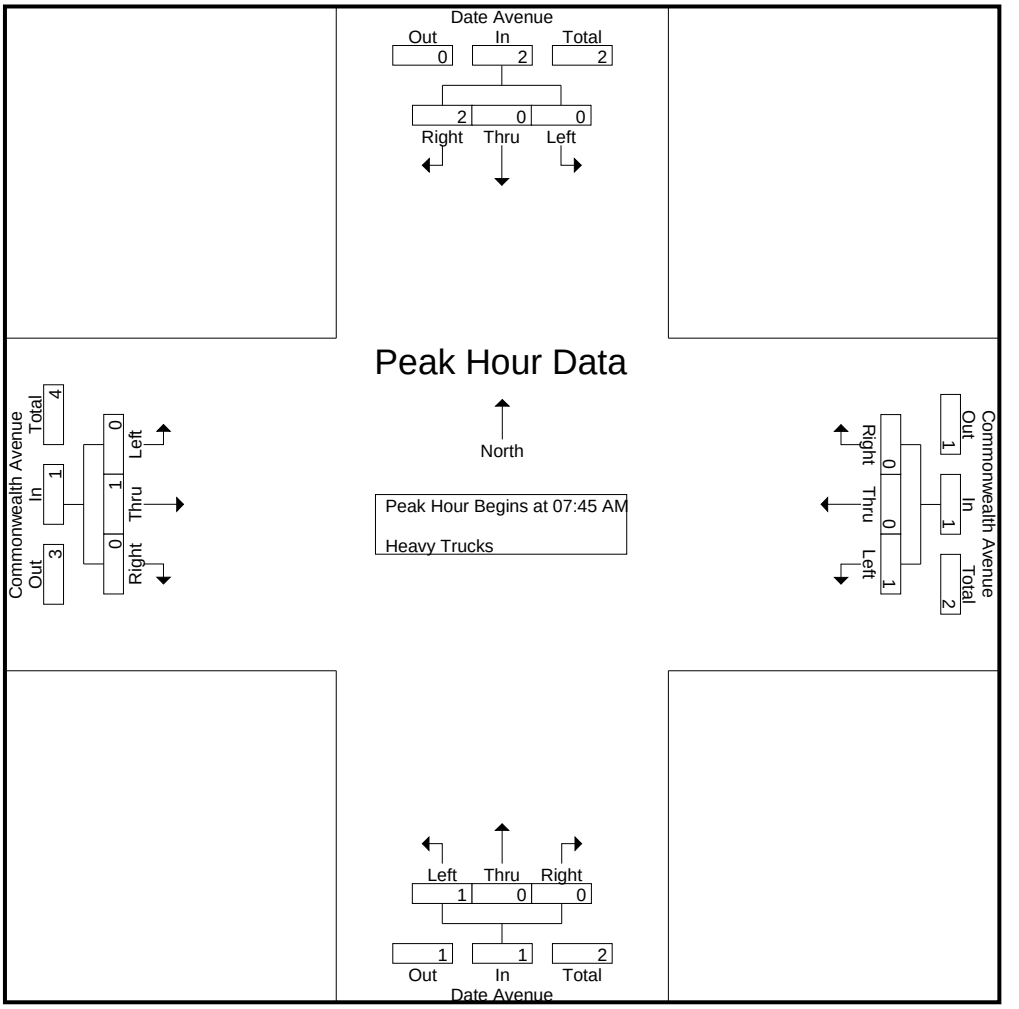

Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	1	1	**1**	0	0	**1**	0	0	0	0	0	**1**	0	**1**
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0
Total Volume	0	0	2	2	1	0	0	1	1	0	0	1	0	1	0	1
% App. Total	0	0	100		100	0	0		100	0	0		0	100	0	
PHF	.000	.000	.500	.500	.250	.000	.000	.250	.250	.000	.000	.250	.000	.250	.000	.250

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Groups Printed- Buses

	Date Avenue Southbound				Commonwealth Avenue Westbound				Date Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
07:30 AM	0	0	0	0	0	5	0	5	0	0	0	0	0	2	0	2	7
07:45 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	5
Total	0	0	0	0	0	10	0	10	0	0	0	0	0	7	0	7	17
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
08:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	1	3	5
08:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
08:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
Total	0	0	0	0	0	5	0	5	0	0	0	0	0	6	1	7	12
Grand Total	0	0	0	0	0	15	0	15	0	0	0	0	0	13	1	14	29
Apprch %	0	0	0		0	100	0		0	0	0		0	92.9	7.1		
Total %	0	0	0	0	0	51.7	0	51.7	0	0	0	0	0	44.8	3.4	48.3	

	Date Avenue Southbound				Commonwealth Avenue Westbound				Date Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	**3**	0	**3**	0	0	0	0	0	**2**	0	2	**5**
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
08:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	**1**	**3**	5
08:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
Total Volume	0	0	0	0	0	7	0	7	0	0	0	0	0	7	1	8	15
% App. Total	0	0	0		0	100	0		0	0	0		0	87.5	12.5		
PHF	.000	.000	.000	.000	.000	.583	.000	.583	.000	.000	.000	.000	.000	.875	.250	.667	.750

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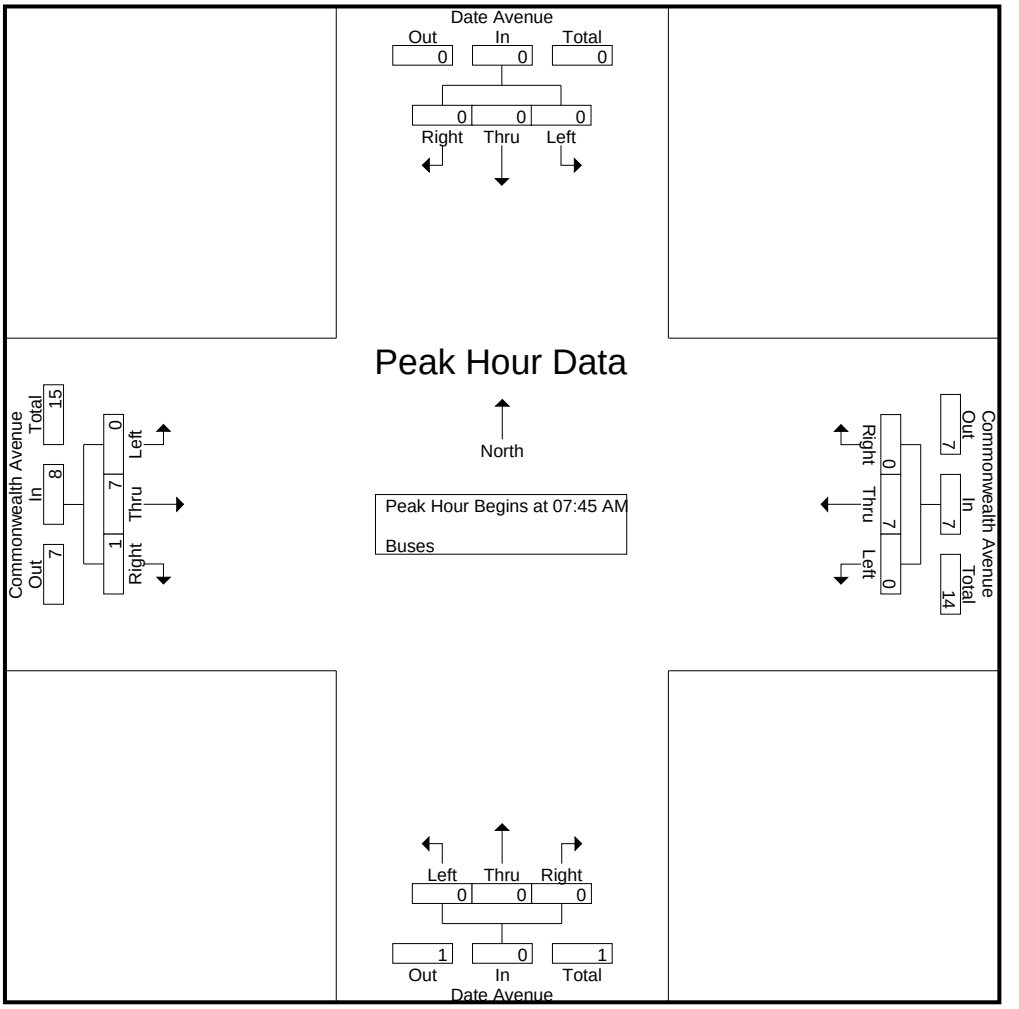

Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	**3**	0	**3**	0	0	0	0	0	**2**	0	2
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	2	**1**	**3**
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2
Total Volume	0	0	0	0	0	7	0	7	0	0	0	0	0	7	1	8
% App. Total	0	0	0		0	100	0		0	0	0		0	87.5	12.5	
PHF	.000	.000	.000	.000	.000	.583	.000	.583	.000	.000	.000	.000	.000	.875	.250	.667

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File Name : 01_AHB_Date_Common_PM
Site Code : 04122411
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Groups Printed- Passenger Vehicles - Heavy Trucks - Buses

	Date Avenue Southbound				Commonwealth Avenue Westbound				Date Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	25	27	30	82	20	100	0	120	12	0	26	38	0	112	15	127	367
04:15 PM	22	23	27	72	15	89	0	104	9	0	22	31	0	118	9	127	334
04:30 PM	18	23	34	75	18	106	0	124	11	0	31	42	0	115	10	125	366
04:45 PM	24	21	28	73	15	110	0	125	14	0	16	30	0	146	15	161	389
Total	89	94	119	302	68	405	0	473	46	0	95	141	0	491	49	540	1456
05:00 PM	28	16	33	77	18	118	1	137	23	0	25	48	0	110	11	121	383
05:15 PM	25	22	31	78	18	105	0	123	16	0	26	42	0	138	9	147	390
05:30 PM	30	15	34	79	11	101	0	112	14	0	31	45	0	116	17	133	369
05:45 PM	29	22	26	77	27	111	0	138	11	0	29	40	0	126	13	139	394
Total	112	75	124	311	74	435	1	510	64	0	111	175	0	490	50	540	1536
Grand Total	201	169	243	613	142	840	1	983	110	0	206	316	0	981	99	1080	2992
Apprch %	32.8	27.6	39.6		14.4	85.5	0.1		34.8	0	65.2		0	90.8	9.2		
Total %	6.7	5.6	8.1	20.5	4.7	28.1	0	32.9	3.7	0	6.9	10.6	0	32.8	3.3	36.1	
Passenger Vehicles	200	169	243	612	141	826	1	968	106	0	204	310	0	966	96	1062	2952
% Passenger Vehicles	99.5	100	100	99.8	99.3	98.3	100	98.5	96.4	0	99	98.1	0	98.5	97	98.3	98.7
Heavy Trucks	1	0	0	1	1	0	0	1	4	0	2	6	0	1	3	4	12
% Heavy Trucks	0.5	0	0	0.2	0.7	0	0	0.1	3.6	0	1	1.9	0	0.1	3	0.4	0.4
Buses	0	0	0	0	0	14	0	14	0	0	0	0	0	14	0	14	28
% Buses	0	0	0	0	0	1.7	0	1.4	0	0	0	0	0	1.4	0	1.3	0.9

	Date Avenue Southbound				Commonwealth Avenue Westbound				Date Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	28	16	33	77	18	**118**	**1**	137	**23**	0	25	**48**	0	110	11	121	383
05:15 PM	25	**22**	31	78	18	105	0	123	16	0	26	42	0	**138**	9	**147**	390
05:30 PM	**30**	15	**34**	**79**	11	101	0	112	14	0	**31**	45	0	116	**17**	133	369
05:45 PM	29	22	26	77	**27**	111	0	**138**	11	0	29	40	0	126	13	139	**394**
Total Volume	112	75	124	311	74	435	1	510	64	0	111	175	0	490	50	540	1536
% App. Total	36	24.1	39.9		14.5	85.3	0.2		36.6	0	63.4		0	90.7	9.3		
PHF	.933	.852	.912	.984	.685	.922	.250	.924	.696	.000	.895	.911	.000	.888	.735	.918	.975

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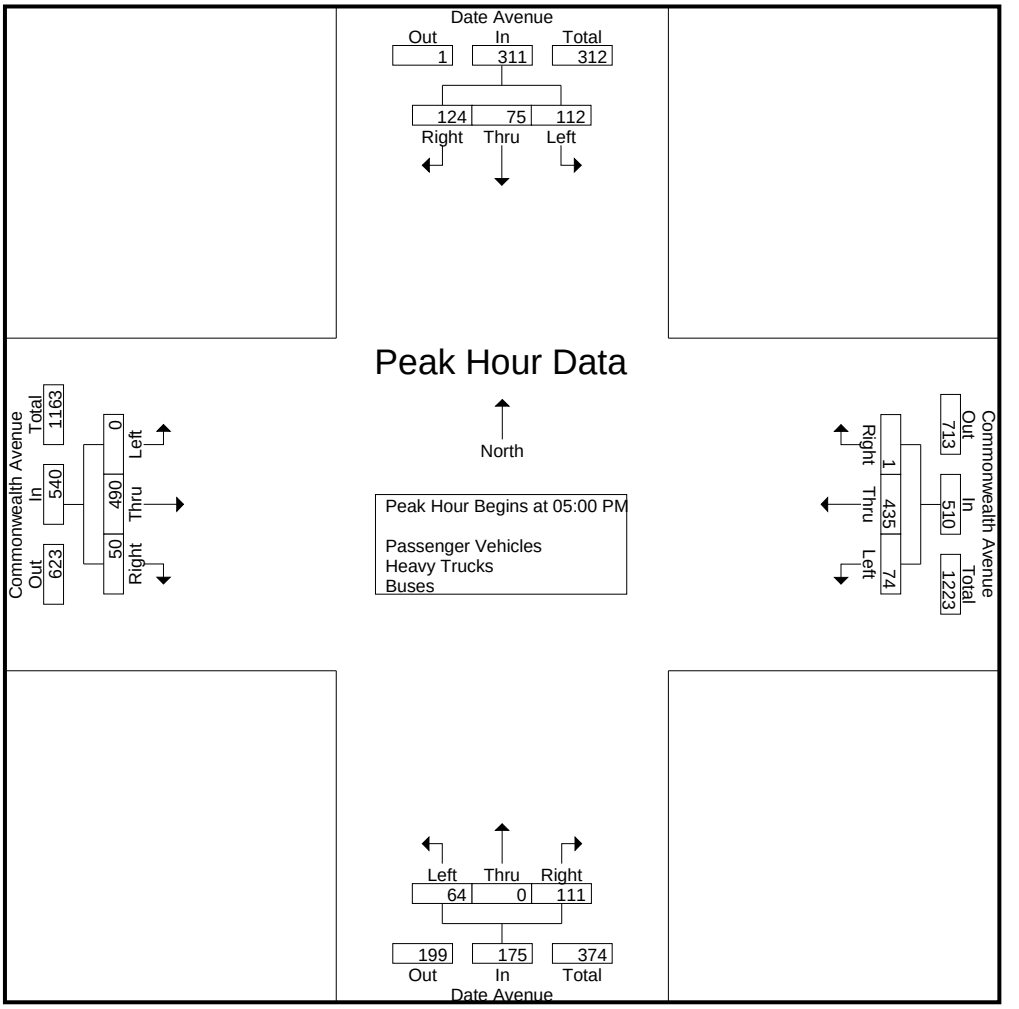

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				04:45 PM			
+0 mins.	28	16	33	77	18	**118**	**1**	137	**23**	0	25	**48**	0	**146**	15	**161**
+15 mins.	25	**22**	31	78	18	105	0	123	16	0	26	42	0	110	11	121
+30 mins.	**30**	15	**34**	**79**	11	101	0	112	14	0	**31**	45	0	138	9	147
+45 mins.	29	22	26	77	**27**	111	0	**138**	11	0	29	40	0	116	**17**	133
Total Volume	112	75	124	311	74	435	1	510	64	0	111	175	0	510	52	562
% App. Total	36	24.1	39.9		14.5	85.3	0.2		36.6	0	63.4		0	90.7	9.3	
PHF	.933	.852	.912	.984	.685	.922	.250	.924	.696	.000	.895	.911	.000	.873	.765	.873

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Groups Printed- Passenger Vehicles

	Date Avenue Southbound				Commonwealth Avenue Westbound				Date Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	25	27	30	82	20	97	0	117	11	0	26	37	0	109	14	123	359
04:15 PM	21	23	27	71	15	87	0	102	9	0	21	30	0	117	9	126	329
04:30 PM	18	23	34	75	18	104	0	122	11	0	31	42	0	113	10	123	362
04:45 PM	24	21	28	73	15	109	0	124	13	0	16	29	0	144	14	158	384
Total	88	94	119	301	68	397	0	465	44	0	94	138	0	483	47	530	1434
05:00 PM	28	16	33	77	18	117	1	136	21	0	25	46	0	109	10	119	378
05:15 PM	25	22	31	78	18	103	0	121	16	0	26	42	0	135	9	144	385
05:30 PM	30	15	34	79	10	99	0	109	14	0	30	44	0	115	17	132	364
05:45 PM	29	22	26	77	27	110	0	137	11	0	29	40	0	124	13	137	391
Total	112	75	124	311	73	429	1	503	62	0	110	172	0	483	49	532	1518
Grand Total	200	169	243	612	141	826	1	968	106	0	204	310	0	966	96	1062	2952
Apprch %	32.7	27.6	39.7		14.6	85.3	0.1		34.2	0	65.8		0	91	9		
Total %	6.8	5.7	8.2	20.7	4.8	28	0	32.8	3.6	0	6.9	10.5	0	32.7	3.3	36	

	Date Avenue Southbound				Commonwealth Avenue Westbound				Date Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	28	16	33	77	18	**117**	**1**	136	**21**	0	25	**46**	0	109	10	119	378
05:15 PM	25	**22**	31	78	18	103	0	121	16	0	26	42	0	**135**	9	**144**	385
05:30 PM	**30**	15	**34**	**79**	10	99	0	109	14	0	**30**	44	0	115	**17**	132	364
05:45 PM	29	22	26	77	**27**	110	0	**137**	11	0	29	40	0	124	13	137	**391**
Total Volume	112	75	124	311	73	429	1	503	62	0	110	172	0	483	49	532	1518
% App. Total	36	24.1	39.9		14.5	85.3	0.2		36	0	64		0	90.8	9.2		
PHF	.933	.852	.912	.984	.676	.917	.250	.918	.738	.000	.917	.935	.000	.894	.721	.924	.971

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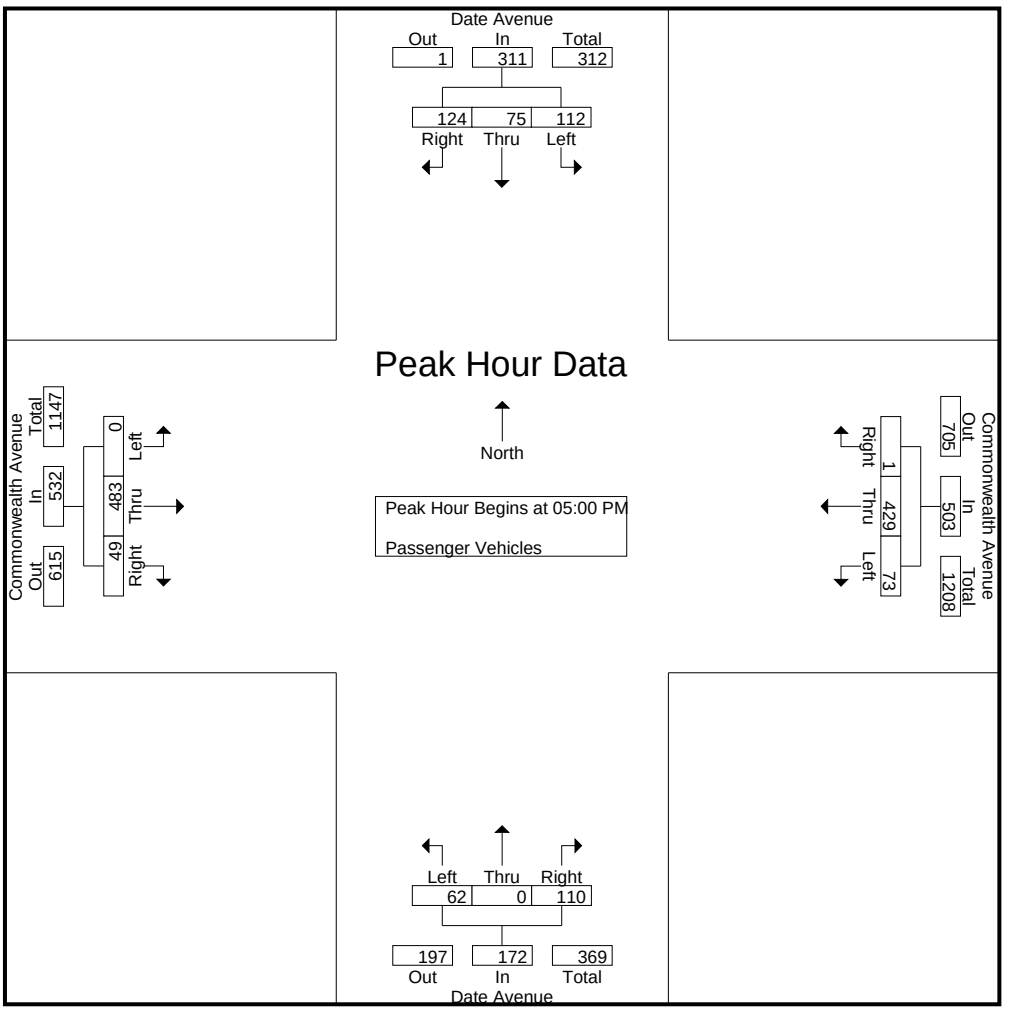

Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	28	16	33	77	18	**117**	**1**	136	**21**	0	25	**46**	0	109	10	119
+15 mins.	25	**22**	31	78	18	103	0	121	16	0	26	42	0	**135**	9	**144**
+30 mins.	**30**	15	**34**	**79**	10	99	0	109	14	0	**30**	44	0	115	**17**	132
+45 mins.	29	22	26	77	**27**	110	0	**137**	11	0	29	40	0	124	13	137
Total Volume	112	75	124	311	73	429	1	503	62	0	110	172	0	483	49	532
% App. Total	36	24.1	39.9		14.5	85.3	0.2		36	0	64		0	90.8	9.2	
PHF	.933	.852	.912	.984	.676	.917	.250	.918	.738	.000	.917	.935	.000	.894	.721	.924

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File Name : 01_AHB_Date_Common_PM
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Groups Printed- Heavy Trucks

	Date Avenue Southbound				Commonwealth Avenue Westbound				Date Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1	2	3
04:15 PM	1	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	1	2
Total	1	0	0	1	0	0	0	0	2	0	1	3	0	1	2	3	7
05:00 PM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	1	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	0	1	2	0	1	3	0	0	1	1	5
Grand Total	1	0	0	1	1	0	0	1	4	0	2	6	0	1	3	4	12
Apprch %	100	0	0		100	0	0		66.7	0	33.3		0	25	75		
Total %	8.3	0	0	8.3	8.3	0	0	8.3	33.3	0	16.7	50	0	8.3	25	33.3	

	Date Avenue Southbound				Commonwealth Avenue Westbound				Date Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	**2**	0	0	**2**	0	0	**1**	**1**	**3**
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	**1**	0	0	**1**	0	0	**1**	1	0	0	0	0	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	0	0	1	2	0	1	3	0	0	1	1	5
% App. Total	0	0	0		100	0	0		66.7	0	33.3		0	0	100		
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.250	.000	.250	.375	.000	.000	.250	.250	.417

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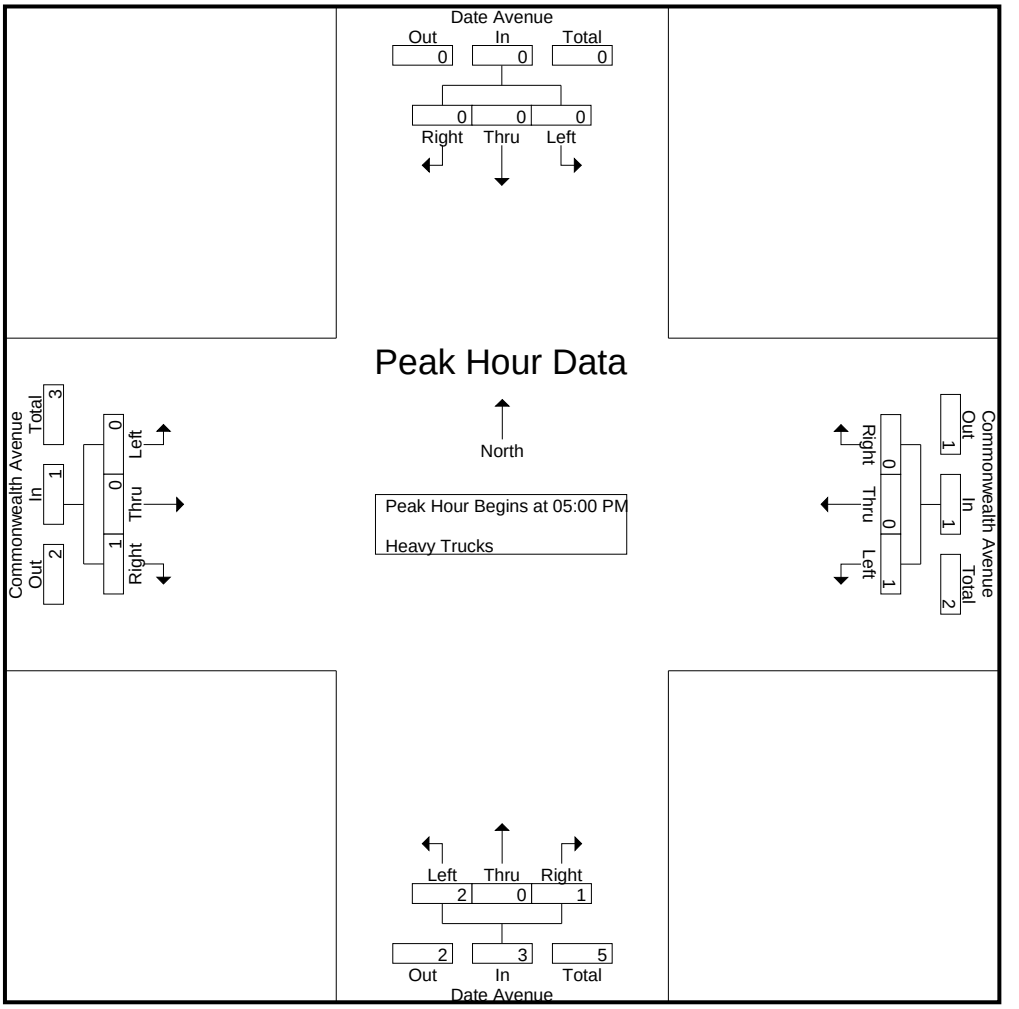

Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	**2**	0	0	**2**	0	0	**1**	**1**
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	**1**	0	0	**1**	0	0	**1**	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	0	0	1	2	0	1	3	0	0	1	1
% App. Total	0	0	0		100	0	0		66.7	0	33.3		0	0	100	
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.250	.000	.250	.375	.000	.000	.250	.250

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Groups Printed- Buses

	Date Avenue Southbound				Commonwealth Avenue Westbound				Date Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	5
04:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
04:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
Total	0	0	0	0	0	8	0	8	0	0	0	0	0	7	0	7	15
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
05:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	5
05:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
05:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
Total	0	0	0	0	0	6	0	6	0	0	0	0	0	7	0	7	13
Grand Total	0	0	0	0	0	14	0	14	0	0	0	0	0	14	0	14	28
Apprch %	0	0	0		0	100	0		0	0	0		0	100	0		
Total %	0	0	0	0	0	50	0	50	0	0	0	0	0	50	0	50	

	Date Avenue Southbound				Commonwealth Avenue Westbound				Date Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
05:15 PM	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	**3**	0	**3**	**5**
05:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
05:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
Total Volume	0	0	0	0	0	6	0	6	0	0	0	0	0	7	0	7	13
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.750	.000	.750	.000	.000	.000	.000	.000	.583	.000	.583	.650

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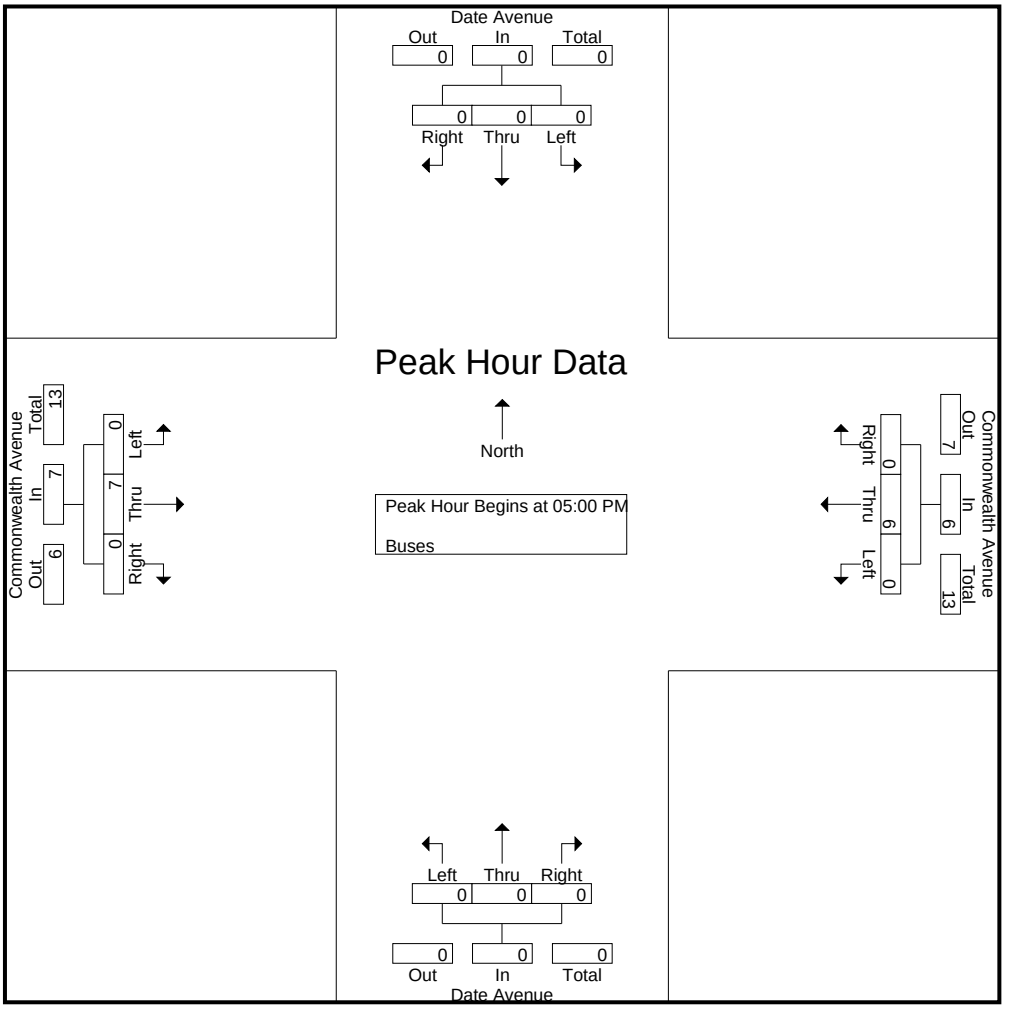

Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	**3**	0	**3**
+30 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2
Total Volume	0	0	0	0	0	6	0	6	0	0	0	0	0	7	0	7
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0	
PHF	.000	.000	.000	.000	.000	.750	.000	.750	.000	.000	.000	.000	.000	.583	.000	.583

Location: Alhambra
N/S: Date Avenue
E/W: Commonwealth Avenue

Date: 5/5/2022
Day: Thursday

PEDESTRIANS

	North Leg Date Avenue	East Leg Commonwealth Avenue	South Leg Date Avenue	West Leg Commonwealth Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	1	0	1	0	2
7:15 AM	2	0	0	0	2
7:30 AM	0	0	1	1	2
7:45 AM	2	2	4	3	11
8:00 AM	3	0	0	2	5
8:15 AM	0	1	4	4	9
8:30 AM	0	0	1	0	1
8:45 AM	0	0	3	1	4
TOTAL VOLUMES:	8	3	14	11	36

	North Leg Date Avenue	East Leg Commonwealth Avenue	South Leg Date Avenue	West Leg Commonwealth Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	2	1	2	2	7
4:15 PM	0	0	0	2	2
4:30 PM	0	0	2	0	2
4:45 PM	1	1	2	4	8
5:00 PM	3	1	4	5	13
5:15 PM	3	1	4	3	11
5:30 PM	1	1	0	5	7
5:45 PM	1	0	0	0	1
TOTAL VOLUMES:	11	5	14	21	51

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Location: Alhambra
N/S: Date Avenue
E/W: Commonwealth Avenue

Date: 5/5/2022
Day: Thursday

BICYCLES

	Southbound Date Avenue			Westbound Commonwealth Avenue			Northbound Date Avenue			Eastbound Commonwealth Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	1	0	0	0	0	0	0	1	0	2
7:45 AM	0	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	0
8:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:30 AM	0	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	1	0	1
TOTAL VOLUMES:	0	0	0	1	1	0	0	0	0	0	3	0	5

	Southbound Date Avenue			Westbound Commonwealth Avenue			Northbound Date Avenue			Eastbound Commonwealth Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	1	0	0	0	1	0	1	0	3
4:15 PM	0	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	0
4:45 PM	0	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	0
5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	2	0	0	0	1	0	2	0	5

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City of Alhambra
N/S: Palm Avenue
E/W: Commonwealth Avenue
Weather: Clear

File Name : 02_AHB_Palm_Common_AM
Site Code : 04122411
Start Date : 5/5/2022
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Trucks - Buses

	Palm Avenue Southbound				Commonwealth Avenue Westbound				Palm Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	4	17	25	46	0	30	5	35	2	18	0	20	39	31	2	72	173
07:15 AM	7	19	29	55	0	27	7	34	1	11	1	13	36	40	2	78	180
07:30 AM	5	20	45	70	0	37	10	47	3	14	2	19	37	54	1	92	228
07:45 AM	7	32	59	98	1	61	10	72	4	11	1	16	48	79	4	131	317
Total	23	88	158	269	1	155	32	188	10	54	4	68	160	204	9	373	898
08:00 AM	13	24	48	85	4	59	30	93	1	15	3	19	55	74	5	134	331
08:15 AM	7	29	50	86	3	50	21	74	7	14	3	24	45	62	3	110	294
08:30 AM	16	21	36	73	2	51	17	70	5	14	6	25	33	49	1	83	251
08:45 AM	5	15	45	65	1	44	14	59	2	10	1	13	57	51	8	116	253
Total	41	89	179	309	10	204	82	296	15	53	13	81	190	236	17	443	1129
Grand Total	64	177	337	578	11	359	114	484	25	107	17	149	350	440	26	816	2027
Apprch %	11.1	30.6	58.3		2.3	74.2	23.6		16.8	71.8	11.4		42.9	53.9	3.2		
Total %	3.2	8.7	16.6	28.5	0.5	17.7	5.6	23.9	1.2	5.3	0.8	7.4	17.3	21.7	1.3	40.3	
Passenger Vehicles	64	167	323	554	10	351	112	473	25	101	14	140	340	434	26	800	1967
% Passenger Vehicles	100	94.4	95.8	95.8	90.9	97.8	98.2	97.7	100	94.4	82.4	94	97.1	98.6	100	98	97
Heavy Trucks	0	8	6	14	1	2	2	5	0	6	3	9	3	1	0	4	32
% Heavy Trucks	0	4.5	1.8	2.4	9.1	0.6	1.8	1	0	5.6	17.6	6	0.9	0.2	0	0.5	1.6
Buses	0	2	8	10	0	6	0	6	0	0	0	0	7	5	0	12	28
% Buses	0	1.1	2.4	1.7	0	1.7	0	1.2	0	0	0	0	2	1.1	0	1.5	1.4

	Palm Avenue Southbound				Commonwealth Avenue Westbound				Palm Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	7	**32**	**59**	**98**	1	**61**	10	72	4	11	1	16	48	**79**	4	131	317
08:00 AM	13	24	48	85	**4**	59	**30**	**93**	1	**15**	3	19	**55**	74	**5**	**134**	**331**
08:15 AM	7	29	50	86	3	50	21	74	**7**	14	3	24	45	62	3	110	294
08:30 AM	**16**	21	36	73	2	51	17	70	5	14	**6**	**25**	33	49	1	83	251
Total Volume	43	106	193	342	10	221	78	309	17	54	13	84	181	264	13	458	1193
% App. Total	12.6	31	56.4		3.2	71.5	25.2		20.2	64.3	15.5		39.5	57.6	2.8		
PHF	.672	.828	.818	.872	.625	.906	.650	.831	.607	.900	.542	.840	.823	.835	.650	.854	.901

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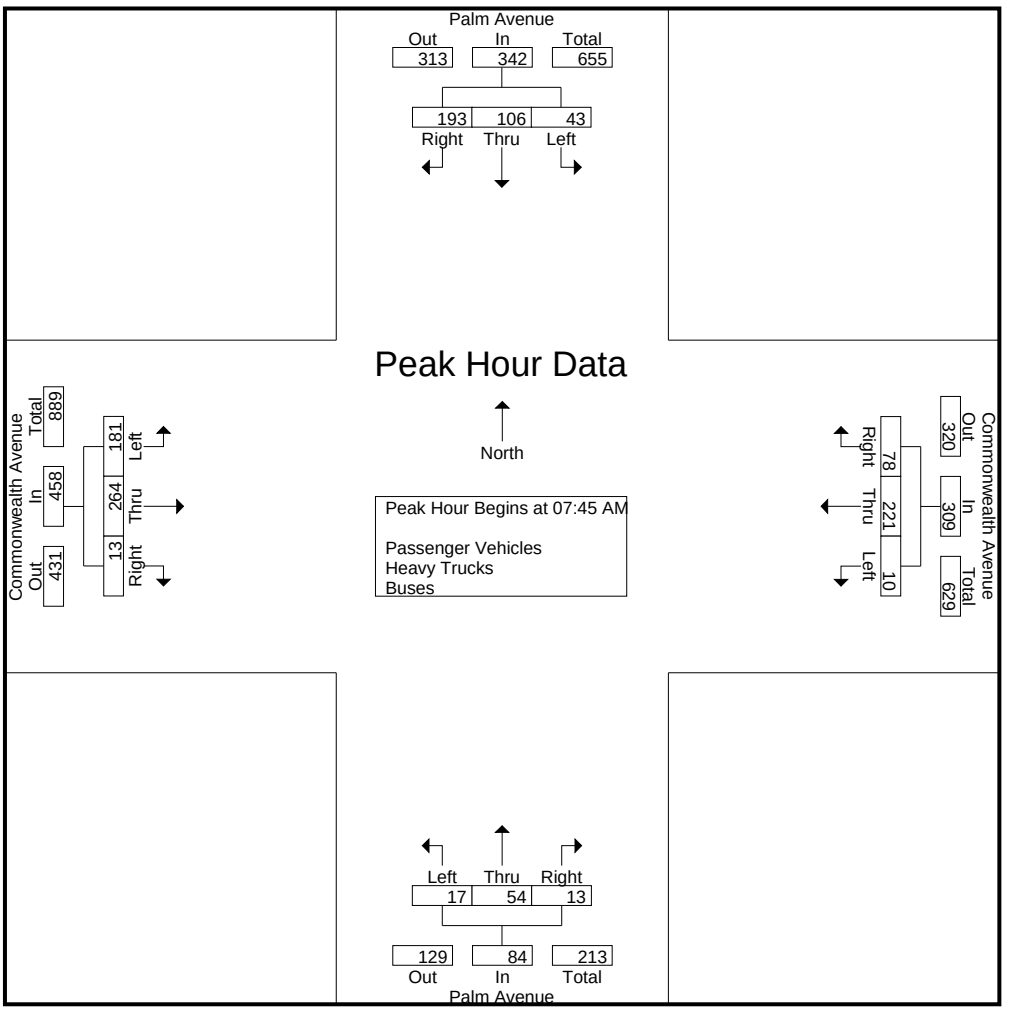
City of Alhambra
N/S: Palm Avenue
E/W: Commonwealth Avenue
Weather: Clear

File Name : 02_AHB_Palm_Common_AM
Site Code : 04122411
Start Date : 5/5/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:30 AM			
+0 mins.	7	**32**	**59**	**98**	1	**61**	10	72	4	11	1	16	37	54	1	92
+15 mins.	13	24	48	85	**4**	59	**30**	**93**	1	**15**	3	19	48	**79**	4	131
+30 mins.	7	29	50	86	3	50	21	74	**7**	14	3	24	**55**	74	**5**	**134**
+45 mins.	**16**	21	36	73	2	51	17	70	5	14	**6**	**25**	45	62	3	110
Total Volume	43	106	193	342	10	221	78	309	17	54	13	84	185	269	13	467
% App. Total	12.6	31	56.4		3.2	71.5	25.2		20.2	64.3	15.5		39.6	57.6	2.8	
PHF	.672	.828	.818	.872	.625	.906	.650	.831	.607	.900	.542	.840	.841	.851	.650	.871

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Weather: Clear

File Name : 02_AHB_Palm_Common_AM
Site Code : 04122411
Start Date : 5/5/2022
Page No : 1

Groups Printed- Passenger Vehicles

	Palm Avenue Southbound				Commonwealth Avenue Westbound				Palm Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	4	16	25	45	0	27	5	32	2	15	0	17	37	30	2	69	163
07:15 AM	7	18	27	52	0	27	7	34	1	11	1	13	35	39	2	76	175
07:30 AM	5	18	42	65	0	35	9	44	3	13	2	18	35	53	1	89	216
07:45 AM	7	30	57	94	1	60	10	71	4	11	1	16	47	78	4	129	310
Total	23	82	151	256	1	149	31	181	10	50	4	64	154	200	9	363	864
08:00 AM	13	23	47	83	4	58	30	92	1	14	3	18	54	73	5	132	325
08:15 AM	7	27	49	83	3	49	20	72	7	14	3	24	44	61	3	108	287
08:30 AM	16	21	34	71	1	51	17	69	5	13	3	21	32	49	1	82	243
08:45 AM	5	14	42	61	1	44	14	59	2	10	1	13	56	51	8	115	248
Total	41	85	172	298	9	202	81	292	15	51	10	76	186	234	17	437	1103
Grand Total	64	167	323	554	10	351	112	473	25	101	14	140	340	434	26	800	1967
Apprch %	11.6	30.1	58.3		2.1	74.2	23.7		17.9	72.1	10		42.5	54.2	3.2		
Total %	3.3	8.5	16.4	28.2	0.5	17.8	5.7	24	1.3	5.1	0.7	7.1	17.3	22.1	1.3	40.7	

	Palm Avenue Southbound				Commonwealth Avenue Westbound				Palm Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	7	**30**	**57**	**94**	1	**60**	10	71	4	11	1	16	47	**78**	4	129	310
08:00 AM	13	23	47	83	**4**	58	**30**	**92**	1	**14**	**3**	18	**54**	73	**5**	**132**	**325**
08:15 AM	7	27	49	83	3	49	20	72	**7**	14	3	**24**	44	61	3	108	287
08:30 AM	**16**	21	34	71	1	51	17	69	5	13	3	21	32	49	1	82	243
Total Volume	43	101	187	331	9	218	77	304	17	52	10	79	177	261	13	451	1165
% App. Total	13	30.5	56.5		3	71.7	25.3		21.5	65.8	12.7		39.2	57.9	2.9		
PHF	.672	.842	.820	.880	.563	.908	.642	.826	.607	.929	.833	.823	.819	.837	.650	.854	.896

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File Name : 02_AHB_Palm_Common_AM
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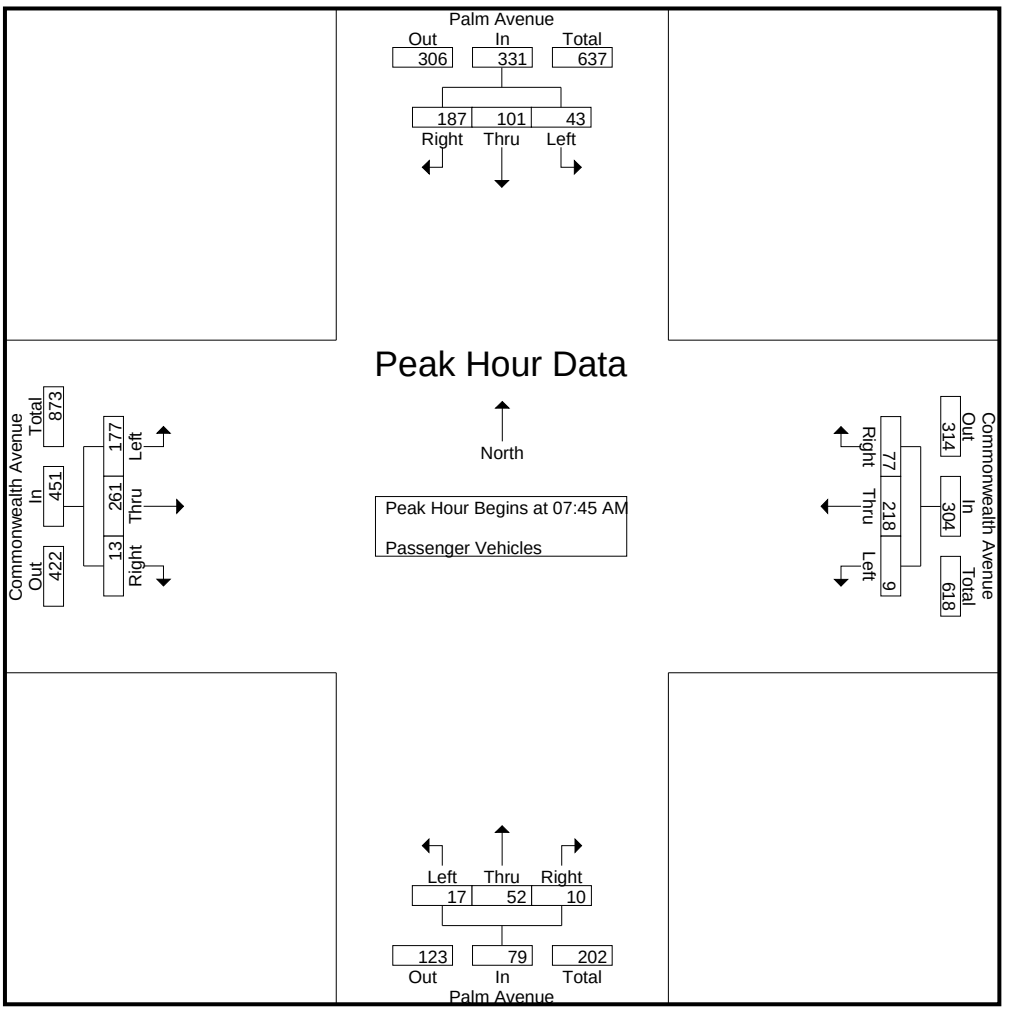
Start Date : 5/5/2022



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	7	**30**	**57**	**94**	1	**60**	10	71	4	11	1	16	47	**78**	4	129
+15 mins.	13	23	47	83	**4**	58	**30**	**92**	1	**14**	**3**	18	**54**	73	**5**	**132**
+30 mins.	7	27	49	83	3	49	20	72	**7**	14	3	**24**	44	61	3	108
+45 mins.	**16**	21	34	71	1	51	17	69	5	13	3	21	32	49	1	82
Total Volume	43	101	187	331	9	218	77	304	17	52	10	79	177	261	13	451
% App. Total	13	30.5	56.5		3	71.7	25.3		21.5	65.8	12.7		39.2	57.9	2.9	
PHF	.672	.842	.820	.880	.563	.908	.642	.826	.607	.929	.833	.823	.819	.837	.650	.854

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City of Alhambra
N/S: Palm Avenue
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Weather: Clear

File Name : 02_AHB_Palm_Common_AM
Site Code : 04122411
Start Date : 5/5/2022
Page No : 1

Groups Printed- Heavy Trucks

	Palm Avenue Southbound				Commonwealth Avenue Westbound				Palm Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	0	2	0	2	0	3	0	3	1	0	0	1	7
07:15 AM	0	1	1	2	0	0	0	0	0	0	0	0	1	0	0	1	3
07:30 AM	0	1	1	2	0	0	1	1	0	1	0	1	0	1	0	1	5
07:45 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	5	2	7	0	2	1	3	0	4	0	4	2	1	0	3	17
08:00 AM	0	1	1	2	0	0	0	0	0	1	0	1	1	0	0	1	4
08:15 AM	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	2
08:30 AM	0	0	1	1	1	0	0	1	0	1	3	4	0	0	0	0	6
08:45 AM	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	0	3	4	7	1	0	1	2	0	2	3	5	1	0	0	1	15
Grand Total	0	8	6	14	1	2	2	5	0	6	3	9	3	1	0	4	32
Apprch %	0	57.1	42.9		20	40	40		0	66.7	33.3		75	25	0		
Total %	0	25	18.8	43.8	3.1	6.2	6.2	15.6	0	18.8	9.4	28.1	9.4	3.1	0	12.5	

	Palm Avenue Southbound				Commonwealth Avenue Westbound				Palm Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	**2**	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	2
08:00 AM	0	1	**1**	2	0	0	0	0	0	**1**	0	1	**1**	0	0	**1**	4
08:15 AM	0	1	0	1	0	0	**1**	**1**	0	0	0	0	0	0	0	0	2
08:30 AM	0	0	1	1	**1**	0	0	1	0	1	**3**	**4**	0	0	0	0	**6**
Total Volume	0	4	2	6	1	0	1	2	0	2	3	5	1	0	0	1	14
% App. Total	0	66.7	33.3		50	0	50		0	40	60		100	0	0		
PHF	.000	.500	.500	.750	.250	.000	.250	.500	.000	.500	.250	.313	.250	.000	.000	.250	.583

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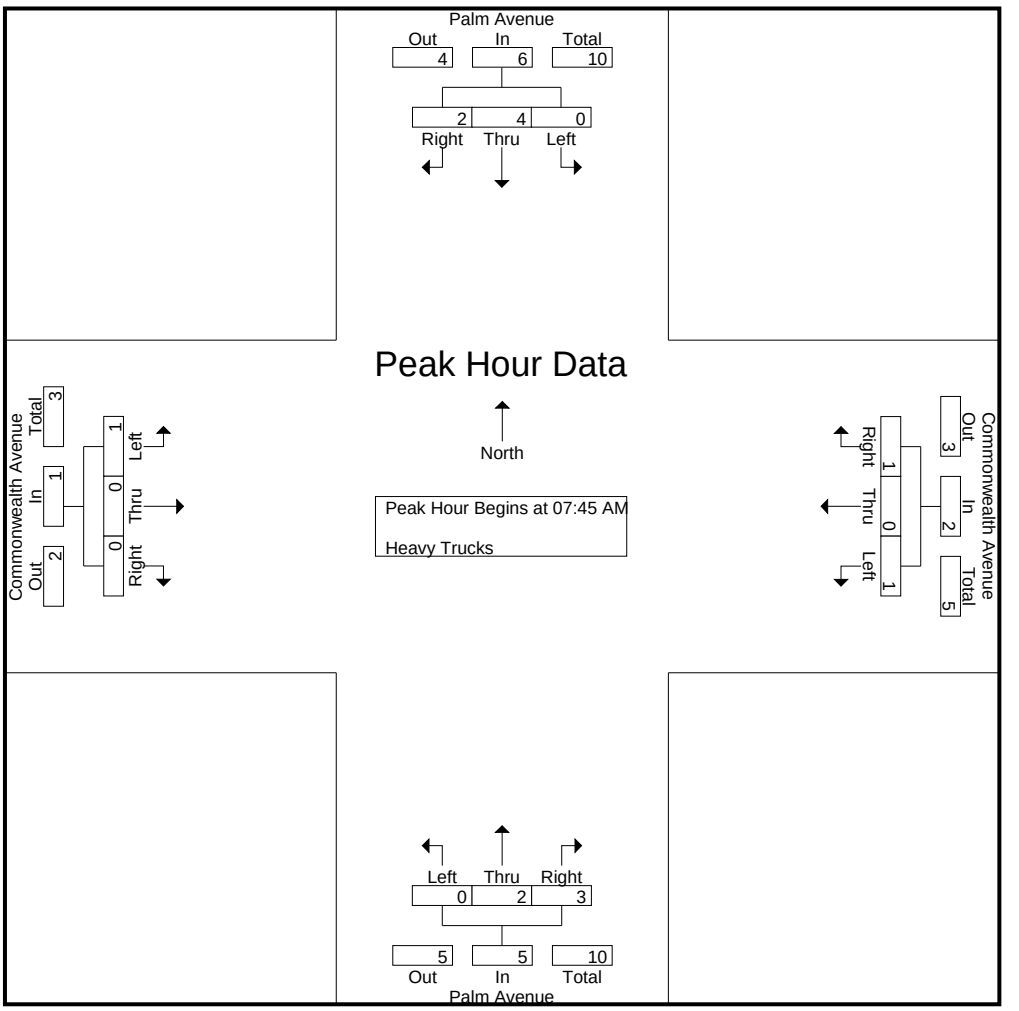

Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	**2**	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	1	**1**	2	0	0	0	0	0	**1**	0	1	**1**	0	0	**1**
+30 mins.	0	1	0	1	0	0	**1**	**1**	0	0	0	0	0	0	0	0
+45 mins.	0	0	1	1	**1**	0	0	1	0	1	**3**	**4**	0	0	0	0
Total Volume	0	4	2	6	1	0	1	2	0	2	3	5	1	0	0	1
% App. Total	0	66.7	33.3		50	0	50		0	40	60		100	0	0	
PHF	.000	.500	.500	.750	.250	.000	.250	.500	.000	.500	.250	.313	.250	.000	.000	.250

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City of Alhambra
N/S: Palm Avenue
E/W: Commonwealth Avenue
Weather: Clear

File Name : 02_AHB_Palm_Common_AM
Site Code : 04122411
Start Date : 5/5/2022

Groups Printed- Buses

	Palm Avenue Southbound				Commonwealth Avenue Westbound				Palm Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	1	1	0	2	3
07:15 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	2
07:30 AM	0	1	2	3	0	2	0	2	0	0	0	0	2	0	0	2	7
07:45 AM	0	0	2	2	0	1	0	1	0	0	0	0	1	1	0	2	5
Total	0	1	5	6	0	4	0	4	0	0	0	0	4	3	0	7	17
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
08:15 AM	0	1	1	2	0	1	0	1	0	0	0	0	1	1	0	2	5
08:30 AM	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	1	2
08:45 AM	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	1	2
Total	0	1	3	4	0	2	0	2	0	0	0	0	3	2	0	5	11
Grand Total	0	2	8	10	0	6	0	6	0	0	0	0	7	5	0	12	28
Apprch %	0	20	80		0	100	0		0	0	0		58.3	41.7	0		
Total %	0	7.1	28.6	35.7	0	21.4	0	21.4	0	0	0	0	25	17.9	0	42.9	

	Palm Avenue Southbound				Commonwealth Avenue Westbound				Palm Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	**2**	**2**	0	**1**	0	**1**	0	0	0	0	**1**	**1**	0	**2**	**5**
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
08:15 AM	0	**1**	1	2	0	1	0	1	0	0	0	0	1	1	0	2	5
08:30 AM	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	1	2
Total Volume	0	1	4	5	0	3	0	3	0	0	0	0	3	3	0	6	14
% App. Total	0	20	80		0	100	0		0	0	0		50	50	0		
PHF	.000	.250	.500	.625	.000	.750	.000	.750	.000	.000	.000	.000	.750	.750	.000	.750	.700

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Weather: Clear

File Name : 02_AHB_Palm_Common_AM
Site Code : 04122411
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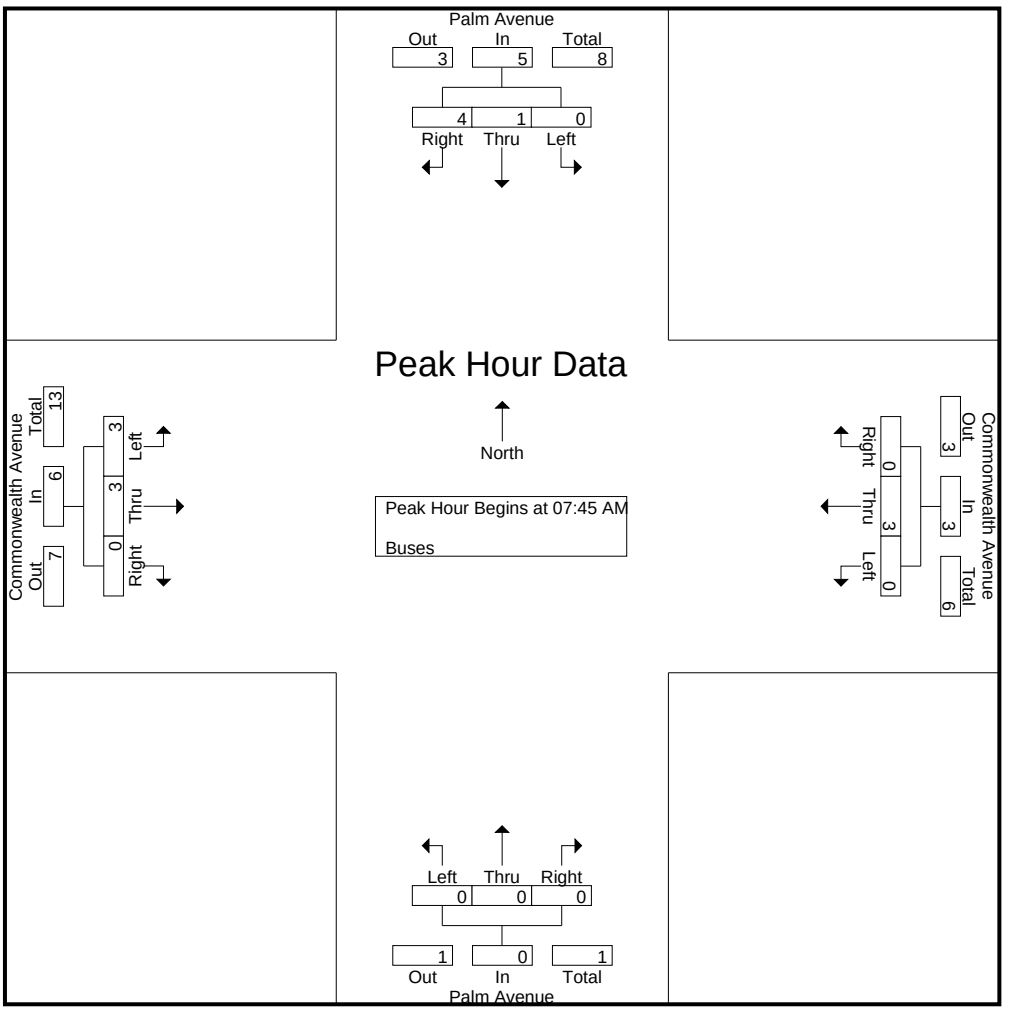

Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	**2**	**2**	0	**1**	0	**1**	0	0	0	0	**1**	**1**	0	**2**
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
+30 mins.	0	**1**	1	2	0	1	0	1	0	0	0	0	1	1	0	2
+45 mins.	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	1
Total Volume	0	1	4	5	0	3	0	3	0	0	0	0	3	3	0	6
% App. Total	0	20	80		0	100	0		0	0	0		50	50	0	
PHF	.000	.250	.500	.625	.000	.750	.000	.750	.000	.000	.000	.000	.750	.750	.000	.750

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City of Alhambra
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Weather: Clear

File Name : 02_AHB_Palm_Common_PM
Site Code : 04122411
Start Date : 5/5/2022
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Trucks - Buses

	Palm Avenue Southbound				Commonwealth Avenue Westbound				Palm Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	28	36	52	116	0	79	30	109	11	26	5	42	73	78	5	156	423
04:15 PM	30	40	52	122	2	76	26	104	6	30	2	38	80	77	8	165	429
04:30 PM	31	38	59	128	2	72	25	99	10	30	4	44	72	77	5	154	425
04:45 PM	45	44	49	138	2	81	29	112	7	32	7	46	99	73	14	186	482
Total	134	158	212	504	6	308	110	424	34	118	18	170	324	305	32	661	1759
05:00 PM	41	31	58	130	0	73	21	94	11	65	4	80	69	74	5	148	452
05:15 PM	35	43	45	123	1	72	14	87	11	33	1	45	87	92	6	185	440
05:30 PM	32	43	57	132	3	57	27	87	6	52	6	64	78	97	8	183	466
05:45 PM	44	37	64	145	1	62	13	76	14	37	3	54	91	71	5	167	442
Total	152	154	224	530	5	264	75	344	42	187	14	243	325	334	24	683	1800
Grand Total	286	312	436	1034	11	572	185	768	76	305	32	413	649	639	56	1344	3559
Apprch %	27.7	30.2	42.2		1.4	74.5	24.1		18.4	73.8	7.7		48.3	47.5	4.2		
Total %	8	8.8	12.3	29.1	0.3	16.1	5.2	21.6	2.1	8.6	0.9	11.6	18.2	18	1.6	37.8	
Passenger Vehicles	285	304	427	1016	11	564	182	757	75	304	32	411	643	635	56	1334	3518
% Passenger Vehicles	99.7	97.4	97.9	98.3	100	98.6	98.4	98.6	98.7	99.7	100	99.5	99.1	99.4	100	99.3	98.8
Heavy Trucks	1	8	2	11	0	1	3	4	1	1	0	2	2	1	0	3	20
% Heavy Trucks	0.3	2.6	0.5	1.1	0	0.2	1.6	0.5	1.3	0.3	0	0.5	0.3	0.2	0	0.2	0.6
Buses	0	0	7	7	0	7	0	7	0	0	0	0	4	3	0	7	21
% Buses	0	0	1.6	0.7	0	1.2	0	0.9	0	0	0	0	0.6	0.5	0	0.5	0.6

	Palm Avenue Southbound				Commonwealth Avenue Westbound				Palm Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**45**	**44**	49	**138**	2	**81**	**29**	**112**	7	32	**7**	46	**99**	73	**14**	**186**	**482**
05:00 PM	41	31	**58**	130	0	73	21	94	**11**	**65**	4	**80**	69	74	5	148	452
05:15 PM	35	43	45	123	1	72	14	87	11	33	1	45	87	92	6	185	440
05:30 PM	32	43	57	132	**3**	57	27	87	6	52	6	64	78	**97**	8	183	466
Total Volume	153	161	209	523	6	283	91	380	35	182	18	235	333	336	33	702	1840
% App. Total	29.3	30.8	40		1.6	74.5	23.9		14.9	77.4	7.7		47.4	47.9	4.7		
PHF	.850	.915	.901	.947	.500	.873	.784	.848	.795	.700	.643	.734	.841	.866	.589	.944	.954

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Weather: Clear

File Name : 02_AHB_Palm_Common_PM
Site Code : 04122411
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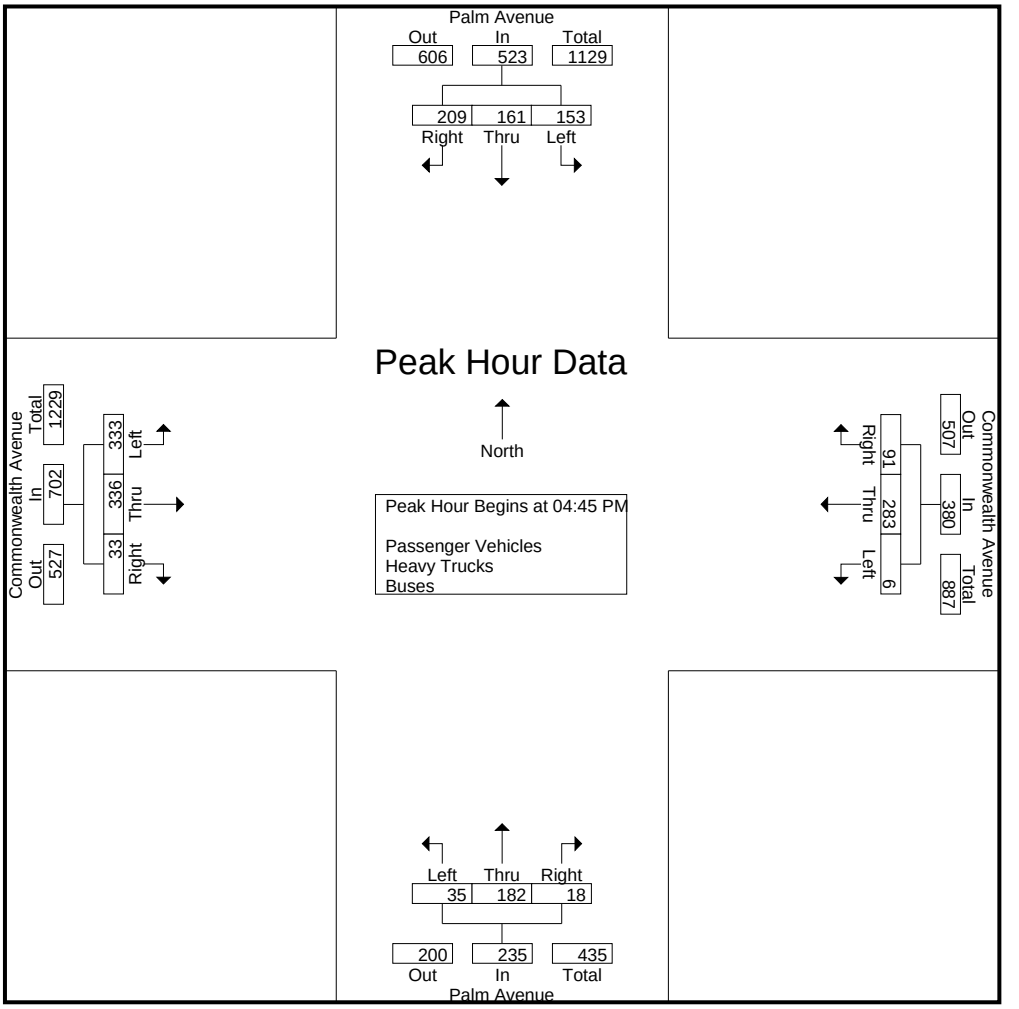

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:00 PM				05:00 PM				04:45 PM			
+0 mins.	41	31	58	130	0	79	**30**	109	11	**65**	4	**80**	**99**	73	**14**	**186**
+15 mins.	35	**43**	45	123	**2**	76	26	104	11	33	1	45	69	74	5	148
+30 mins.	32	43	57	132	2	72	25	99	6	52	**6**	64	87	92	6	185
+45 mins.	**44**	37	**64**	**145**	2	**81**	29	**112**	**14**	37	3	54	78	**97**	8	183
Total Volume	152	154	224	530	6	308	110	424	42	187	14	243	333	336	33	702
% App. Total	28.7	29.1	42.3		1.4	72.6	25.9		17.3	77	5.8		47.4	47.9	4.7	
PHF	.864	.895	.875	.914	.750	.951	.917	.946	.750	.719	.583	.759	.841	.866	.589	.944

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Weather: Clear

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Groups Printed- Passenger Vehicles

	Palm Avenue Southbound				Commonwealth Avenue Westbound				Palm Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	27	36	50	113	0	76	30	106	11	26	5	42	73	76	5	154	415
04:15 PM	30	40	51	121	2	75	25	102	6	30	2	38	78	77	8	163	424
04:30 PM	31	38	58	127	2	71	25	98	9	30	4	43	71	76	5	152	420
04:45 PM	45	44	48	137	2	81	29	112	7	31	7	45	99	73	14	186	480
Total	133	158	207	498	6	303	109	418	33	117	18	168	321	302	32	655	1739
05:00 PM	41	28	58	127	0	72	20	92	11	65	4	80	69	74	5	148	447
05:15 PM	35	42	44	121	1	71	14	86	11	33	1	45	85	92	6	183	435
05:30 PM	32	41	55	128	3	56	27	86	6	52	6	64	78	97	8	183	461
05:45 PM	44	35	63	142	1	62	12	75	14	37	3	54	90	70	5	165	436
Total	152	146	220	518	5	261	73	339	42	187	14	243	322	333	24	679	1779
Grand Total	285	304	427	1016	11	564	182	757	75	304	32	411	643	635	56	1334	3518
Apprch %	28.1	29.9	42		1.5	74.5	24		18.2	74	7.8		48.2	47.6	4.2		
Total %	8.1	8.6	12.1	28.9	0.3	16	5.2	21.5	2.1	8.6	0.9	11.7	18.3	18.1	1.6	37.9	

	Palm Avenue Southbound				Commonwealth Avenue Westbound				Palm Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**45**	**44**	48	**137**	2	**81**	**29**	**112**	7	31	**7**	45	**99**	73	**14**	**186**	**480**
05:00 PM	41	28	**58**	127	0	72	20	92	**11**	**65**	4	**80**	69	74	5	148	447
05:15 PM	35	42	44	121	1	71	14	86	11	33	1	45	85	92	6	183	435
05:30 PM	32	41	55	128	**3**	56	27	86	6	52	6	64	78	**97**	8	183	461
Total Volume	153	155	205	513	6	280	90	376	35	181	18	234	331	336	33	700	1823
% App. Total	29.8	30.2	40		1.6	74.5	23.9		15	77.4	7.7		47.3	48	4.7		
PHF	.850	.881	.884	.936	.500	.864	.776	.839	.795	.696	.643	.731	.836	.866	.589	.941	.949

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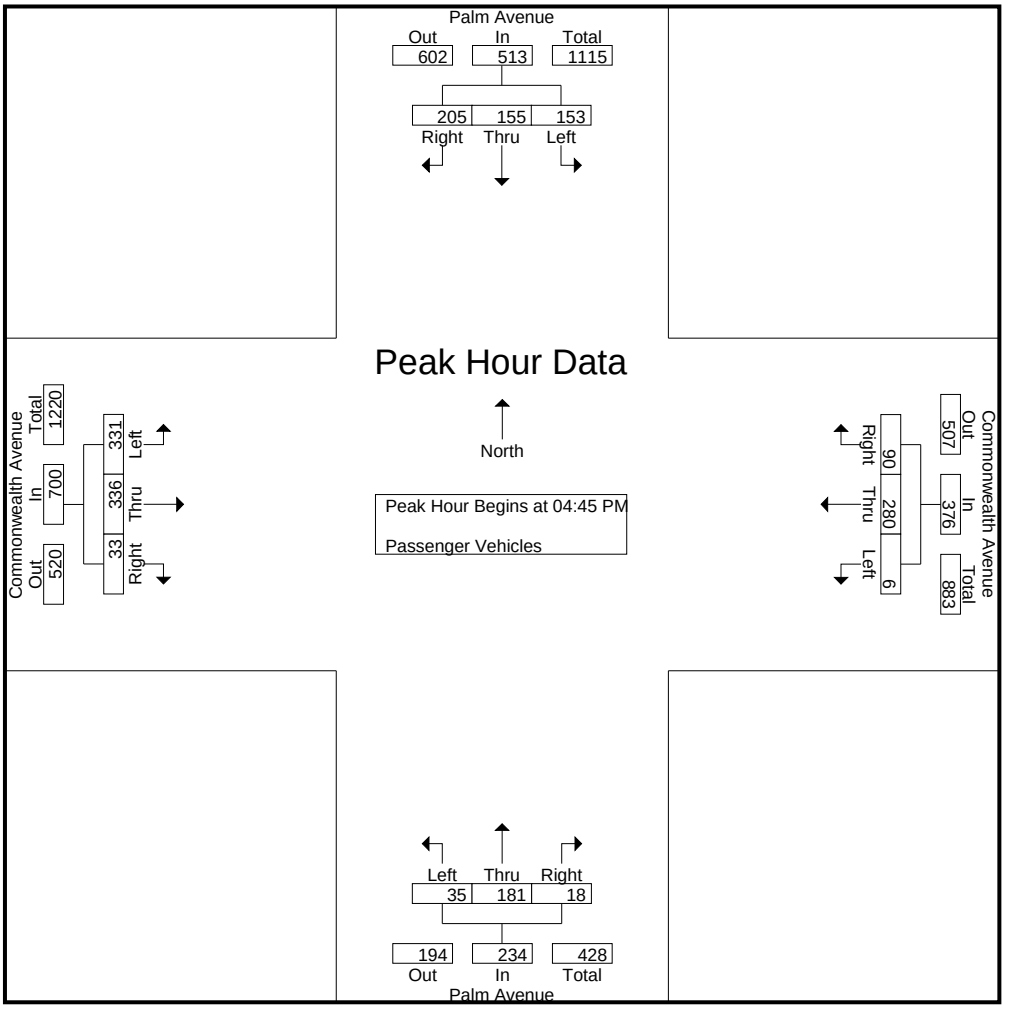

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	**45**	**44**	48	**137**	2	**81**	**29**	**112**	7	31	**7**	45	**99**	73	**14**	**186**
+15 mins.	41	28	**58**	127	0	72	20	92	**11**	**65**	4	**80**	69	74	5	148
+30 mins.	35	42	44	121	1	71	14	86	11	33	1	45	85	92	6	183
+45 mins.	32	41	55	128	**3**	56	27	86	6	52	6	64	78	**97**	8	183
Total Volume	153	155	205	513	6	280	90	376	35	181	18	234	331	336	33	700
% App. Total	29.8	30.2	40		1.6	74.5	23.9		15	77.4	7.7		47.3	48	4.7	
PHF	.850	.881	.884	.936	.500	.864	.776	.839	.795	.696	.643	.731	.836	.866	.589	.941

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File Name : 02_AHB_Palm_Common_PM
Site Code : 04122411
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Page No : 1

Groups Printed- Heavy Trucks

	Palm Avenue Southbound				Commonwealth Avenue Westbound				Palm Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	0	1	2	0	1	0	1	0	0	0	0	0	1	0	1	4
04:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	2	0	0	2	3
04:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	1	0	1	2	0	1	1	2	1	1	0	2	2	1	0	3	9
05:00 PM	0	3	0	3	0	0	1	1	0	0	0	0	0	0	0	0	4
05:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	3
05:45 PM	0	2	0	2	0	0	1	1	0	0	0	0	0	0	0	0	3
Total	0	8	1	9	0	0	2	2	0	0	0	0	0	0	0	0	11
Grand Total	1	8	2	11	0	1	3	4	1	1	0	2	2	1	0	3	20
Apprch %	9.1	72.7	18.2		0	25	75		50	50	0		66.7	33.3	0		
Total %	5	40	10	55	0	5	15	20	5	5	0	10	10	5	0	15	

	Palm Avenue Southbound				Commonwealth Avenue Westbound				Palm Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	1
05:00 PM	0	**3**	0	**3**	0	0	**1**	**1**	0	0	0	0	0	0	0	0	**4**
05:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	2	**1**	3	0	0	0	0	0	0	0	0	0	0	0	0	3
Total Volume	0	6	1	7	0	0	1	1	0	1	0	1	0	0	0	0	9
% App. Total	0	85.7	14.3		0	0	100		0	100	0		0	0	0		
PHF	.000	.500	.250	.583	.000	.000	.250	.250	.000	.250	.000	.250	.000	.000	.000	.000	.563

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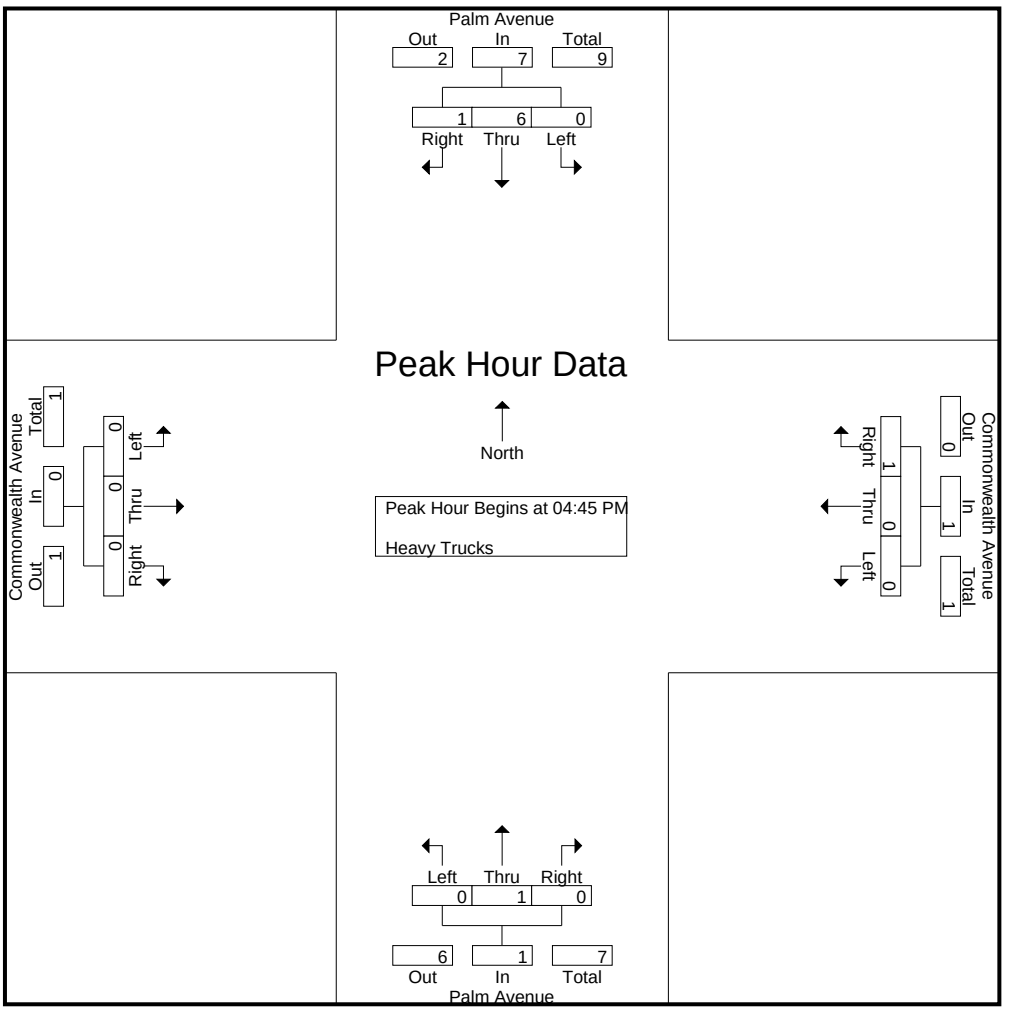

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0
+15 mins.	0	**3**	0	**3**	0	0	**1**	**1**	0	0	0	0	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	2	**1**	3	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	6	1	7	0	0	1	1	0	1	0	1	0	0	0	0
% App. Total	0	85.7	14.3		0	0	100		0	100	0		0	0	0	
PHF	.000	.500	.250	.583	.000	.000	.250	.250	.000	.250	.000	.250	.000	.000	.000	.000

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City of Alhambra
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File Name : 02_AHB_Palm_Common_PM
Site Code : 04122411
Start Date : 5/5/2022

Groups Printed- Buses

	Palm Avenue Southbound				Commonwealth Avenue Westbound				Palm Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	1	1	0	2	0	2	0	0	0	0	0	1	0	1	4
04:15 PM	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	2
04:30 PM	0	0	1	1	0	1	0	1	0	0	0	0	1	1	0	2	4
04:45 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	4	4	0	4	0	4	0	0	0	0	1	2	0	3	11
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	1	1	0	1	0	1	0	0	0	0	2	0	0	2	4
05:30 PM	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	2
05:45 PM	0	0	1	1	0	0	0	0	0	0	0	0	1	1	0	2	3
Total	0	0	3	3	0	3	0	3	0	0	0	0	3	1	0	4	10
Grand Total	0	0	7	7	0	7	0	7	0	0	0	0	4	3	0	7	21
Apprch %	0	0	100		0	100	0		0	0	0		57.1	42.9	0		
Total %	0	0	33.3	33.3	0	33.3	0	33.3	0	0	0	0	19	14.3	0	33.3	

	Palm Avenue Southbound				Commonwealth Avenue Westbound				Palm Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	1	1	0	1	0	1	0	0	0	0	**2**	0	0	**2**	**4**
05:30 PM	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	2
Total Volume	0	0	3	3	0	3	0	3	0	0	0	0	2	0	0	2	8
% App. Total	0	0	100		0	100	0		0	0	0		100	0	0		
PHF	.000	.000	.750	.750	.000	.750	.000	.750	.000	.000	.000	.000	.250	.000	.000	.250	.500

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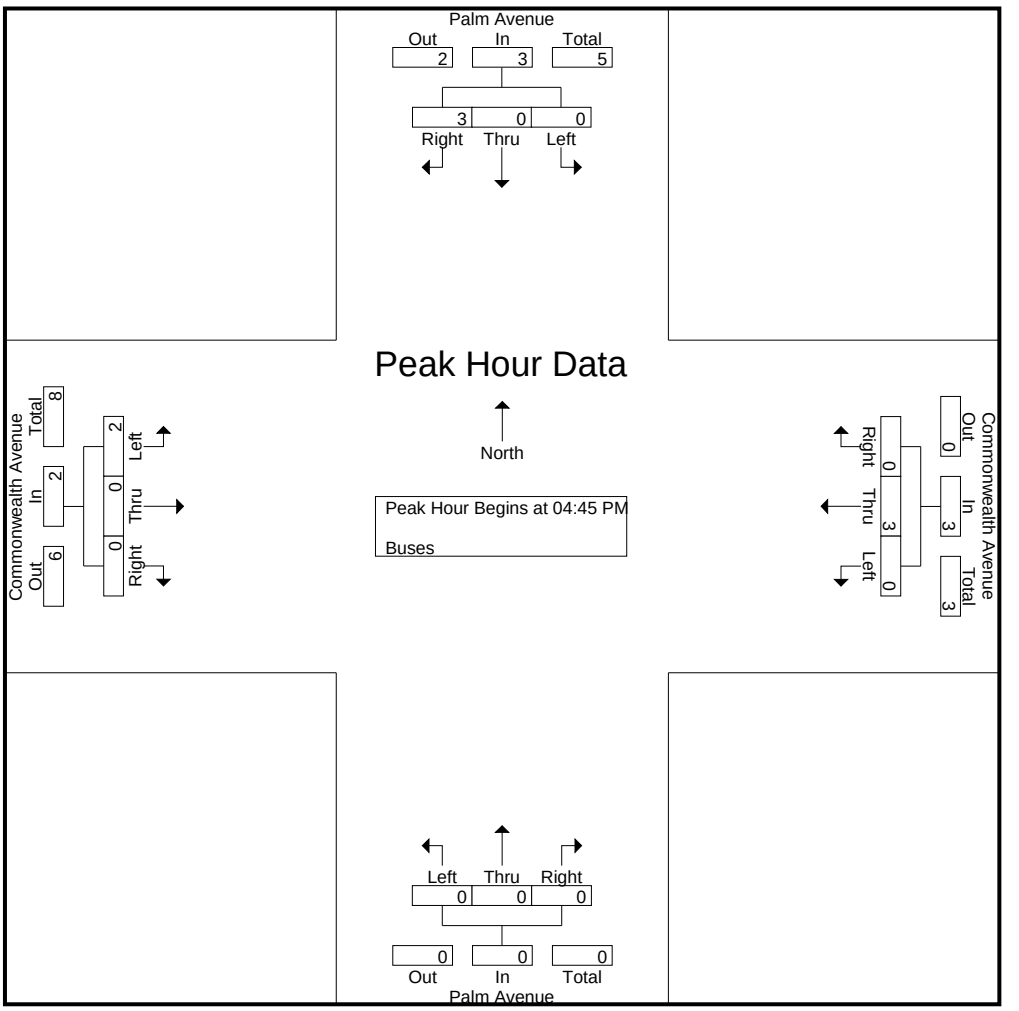

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0
+30 mins.	0	0	1	1	0	1	0	1	0	0	0	0	**2**	0	0	**2**
+45 mins.	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0
Total Volume	0	0	3	3	0	3	0	3	0	0	0	0	2	0	0	2
% App. Total	0	0	100		0	100	0		0	0	0		100	0	0	
PHF	.000	.000	.750	.750	.000	.750	.000	.750	.000	.000	.000	.000	.250	.000	.000	.250

Location: Alhambra
N/S: Palm Avenue
E/W: Commonwealth Avenue

Date: 5/5/2022
Day: Thursday

PEDESTRIANS

	North Leg Palm Avenue	East Leg Commonwealth Avenue	South Leg Palm Avenue	West Leg Commonwealth Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	1	1
7:15 AM	0	0	0	0	0
7:30 AM	0	2	1	0	3
7:45 AM	1	3	2	0	6
8:00 AM	1	0	0	1	2
8:15 AM	1	1	0	0	2
8:30 AM	1	0	2	1	4
8:45 AM	0	2	2	0	4
TOTAL VOLUMES:	4	8	7	3	22

	North Leg Palm Avenue	East Leg Commonwealth Avenue	South Leg Palm Avenue	West Leg Commonwealth Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	5	0	1	1	7
4:15 PM	0	0	0	0	0
4:30 PM	2	2	3	3	10
4:45 PM	3	0	0	2	5
5:00 PM	0	0	3	1	4
5:15 PM	1	2	2	1	6
5:30 PM	3	0	0	0	3
5:45 PM	1	1	1	0	3
TOTAL VOLUMES:	15	5	10	8	38

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Location: Alhambra
N/S: Palm Avenue
E/W: Commonwealth Avenue

Date: 5/5/2022
Day: Thursday

BICYCLES

	Southbound Palm Avenue			Westbound Commonwealth Avenue			Northbound Palm Avenue			Eastbound Commonwealth Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	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	0
7:30 AM	0	0	1	0	0	0	0	0	0	0	1	0	2
7:45 AM	0	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	0
8:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	1	0	1	0	2
TOTAL VOLUMES:	0	0	1	0	1	0	0	0	1	0	2	0	5

	Southbound Palm Avenue			Westbound Commonwealth Avenue			Northbound Palm Avenue			Eastbound Commonwealth Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	1	0	0	1	0	1	0	1	1	0	5
4:15 PM	0	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	0
4:45 PM	0	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	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	1	0	1
TOTAL VOLUMES:	0	0	1	0	0	1	0	2	0	1	2	0	7

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City of Alhambra
N/S: Raymond Avenue
E/W: Commonwealth Avenue
Weather: Clear

File Name : 03_AHB_Raymond_Common_AM
Site Code : 04122411
Start Date : 5/5/2022
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Trucks - Buses

	Raymond Avenue Southbound				Commonwealth Avenue Westbound				Raymond Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	14	3	17	7	30	7	44	2	13	2	17	8	25	1	34	112
07:15 AM	3	10	3	16	6	26	4	36	3	11	2	16	6	40	1	47	115
07:30 AM	8	19	2	29	7	58	8	73	0	14	3	17	12	45	1	58	177
07:45 AM	8	16	6	30	3	65	8	76	2	18	0	20	9	63	5	77	203
Total	19	59	14	92	23	179	27	229	7	56	7	70	35	173	8	216	607
08:00 AM	10	25	6	41	6	81	11	98	4	20	3	27	10	81	3	94	260
08:15 AM	3	12	3	18	4	67	13	84	5	18	7	30	12	56	4	72	204
08:30 AM	6	12	3	21	7	68	15	90	3	24	3	30	9	56	9	74	215
08:45 AM	5	19	6	30	2	46	8	56	6	17	3	26	12	40	3	55	167
Total	24	68	18	110	19	262	47	328	18	79	16	113	43	233	19	295	846
Grand Total	43	127	32	202	42	441	74	557	25	135	23	183	78	406	27	511	1453
Apprch %	21.3	62.9	15.8		7.5	79.2	13.3		13.7	73.8	12.6		15.3	79.5	5.3		
Total %	3	8.7	2.2	13.9	2.9	30.4	5.1	38.3	1.7	9.3	1.6	12.6	5.4	27.9	1.9	35.2	
Passenger Vehicles	41	122	32	195	42	429	73	544	25	133	23	181	76	398	26	500	1420
% Passenger Vehicles	95.3	96.1	100	96.5	100	97.3	98.6	97.7	100	98.5	100	98.9	97.4	98	96.3	97.8	97.7
Heavy Trucks	0	5	0	5	0	6	1	7	0	2	0	2	2	3	1	6	20
% Heavy Trucks	0	3.9	0	2.5	0	1.4	1.4	1.3	0	1.5	0	1.1	2.6	0.7	3.7	1.2	1.4
Buses	2	0	0	2	0	6	0	6	0	0	0	0	0	5	0	5	13
% Buses	4.7	0	0	1	0	1.4	0	1.1	0	0	0	0	0	1.2	0	1	0.9

	Raymond Avenue Southbound				Commonwealth Avenue Westbound				Raymond Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	8	16	**6**	30	3	65	8	76	2	18	0	20	9	63	5	77	203
08:00 AM	**10**	**25**	6	**41**	6	**81**	11	**98**	4	20	3	27	10	**81**	3	**94**	**260**
08:15 AM	3	12	3	18	4	67	13	84	**5**	18	**7**	**30**	**12**	56	4	72	204
08:30 AM	6	12	3	21	**7**	68	**15**	90	3	**24**	3	30	9	56	**9**	74	215
Total Volume	27	65	18	110	20	281	47	348	14	80	13	107	40	256	21	317	882
% App. Total	24.5	59.1	16.4		5.7	80.7	13.5		13.1	74.8	12.1		12.6	80.8	6.6		
PHF	.675	.650	.750	.671	.714	.867	.783	.888	.700	.833	.464	.892	.833	.790	.583	.843	.848

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City of Alhambra
N/S: Raymond Avenue
E/W: Commonwealth Avenue
Weather: Clear

File Name : 03_AHB_Raymond_Common_AM
Site Code : 04122411
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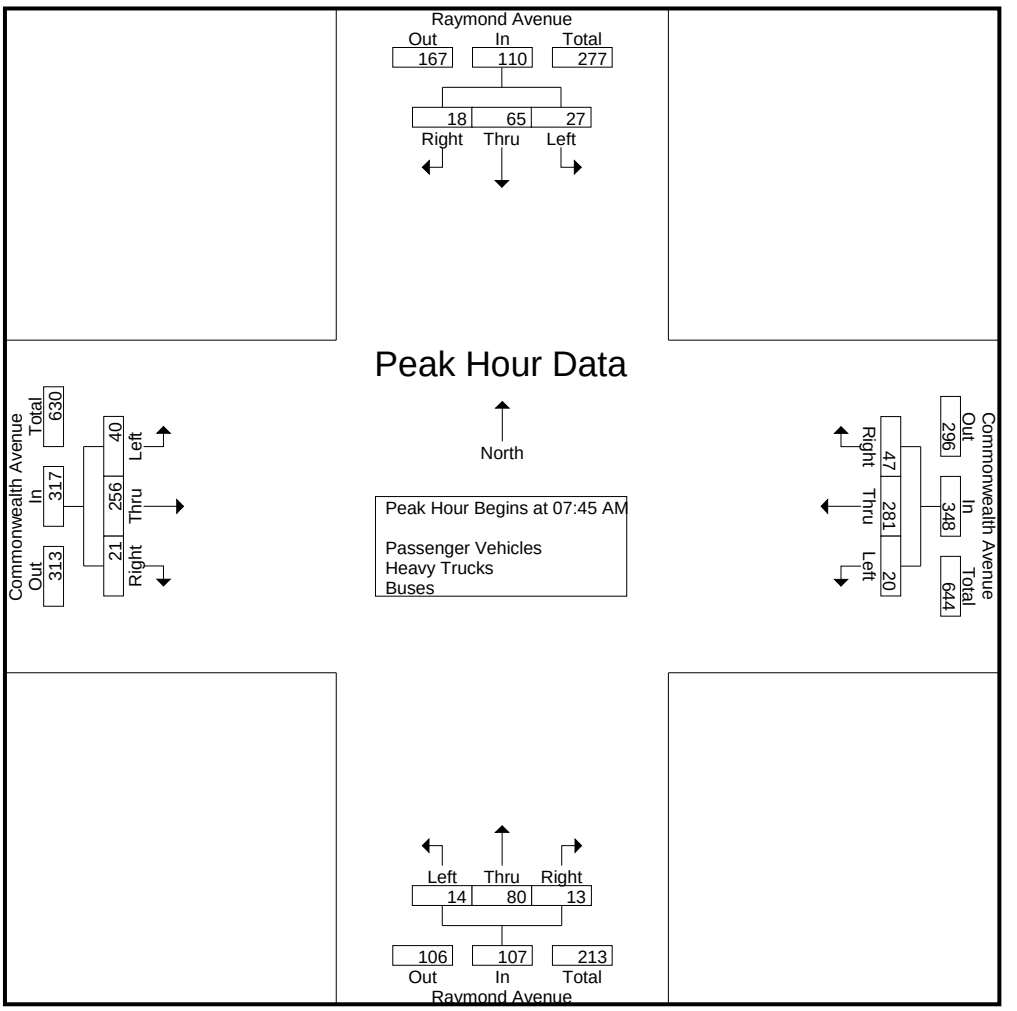
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:45 AM				08:00 AM				07:45 AM			
+0 mins.	8	19	2	29	3	65	8	76	4	20	3	27	9	63	5	77
+15 mins.	8	16	**6**	30	6	**81**	11	**98**	5	18	**7**	**30**	10	**81**	3	**94**
+30 mins.	**10**	**25**	6	**41**	4	67	13	84	3	**24**	3	30	**12**	56	4	72
+45 mins.	3	12	3	18	**7**	68	**15**	90	**6**	17	3	26	9	56	**9**	74
Total Volume	29	72	17	118	20	281	47	348	18	79	16	113	40	256	21	317
% App. Total	24.6	61	14.4		5.7	80.7	13.5		15.9	69.9	14.2		12.6	80.8	6.6	
PHF	.725	.720	.708	.720	.714	.867	.783	.888	.750	.823	.571	.942	.833	.790	.583	.843

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Weather: Clear

File Name : 03_AHB_Raymond_Common_AM
Site Code : 04122411
Start Date : 5/5/2022
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Groups Printed- Passenger Vehicles

	Raymond Avenue Southbound				Commonwealth Avenue Westbound				Raymond Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	12	3	15	7	27	7	41	2	13	2	17	8	24	1	33	106
07:15 AM	1	10	3	14	6	26	4	36	3	11	2	16	6	39	1	46	112
07:30 AM	8	19	2	29	7	54	8	69	0	14	3	17	11	45	1	57	172
07:45 AM	8	16	6	30	3	65	8	76	2	18	0	20	9	61	5	75	201
Total	17	57	14	88	23	172	27	222	7	56	7	70	34	169	8	211	591
08:00 AM	10	23	6	39	6	79	11	96	4	20	3	27	10	80	3	93	255
08:15 AM	3	12	3	18	4	65	13	82	5	18	7	30	12	55	4	71	201
08:30 AM	6	12	3	21	7	68	14	89	3	23	3	29	8	55	8	71	210
08:45 AM	5	18	6	29	2	45	8	55	6	16	3	25	12	39	3	54	163
Total	24	65	18	107	19	257	46	322	18	77	16	111	42	229	18	289	829
Grand Total	41	122	32	195	42	429	73	544	25	133	23	181	76	398	26	500	1420
Apprch %	21	62.6	16.4		7.7	78.9	13.4		13.8	73.5	12.7		15.2	79.6	5.2		
Total %	2.9	8.6	2.3	13.7	3	30.2	5.1	38.3	1.8	9.4	1.6	12.7	5.4	28	1.8	35.2	

	Raymond Avenue Southbound				Commonwealth Avenue Westbound				Raymond Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	8	16	**6**	30	3	65	8	76	2	18	0	20	9	61	5	75	201
08:00 AM	**10**	**23**	6	**39**	6	**79**	11	**96**	4	20	3	27	10	**80**	3	**93**	**255**
08:15 AM	3	12	3	18	4	65	13	82	**5**	18	**7**	**30**	**12**	55	4	71	201
08:30 AM	6	12	3	21	**7**	68	**14**	89	3	**23**	3	29	8	55	**8**	71	210
Total Volume	27	63	18	108	20	277	46	343	14	79	13	106	39	251	20	310	867
% App. Total	25	58.3	16.7		5.8	80.8	13.4		13.2	74.5	12.3		12.6	81	6.5		
PHF	.675	.685	.750	.692	.714	.877	.821	.893	.700	.859	.464	.883	.813	.784	.625	.833	.850

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File Name : 03_AHB_Raymond_Common_AM
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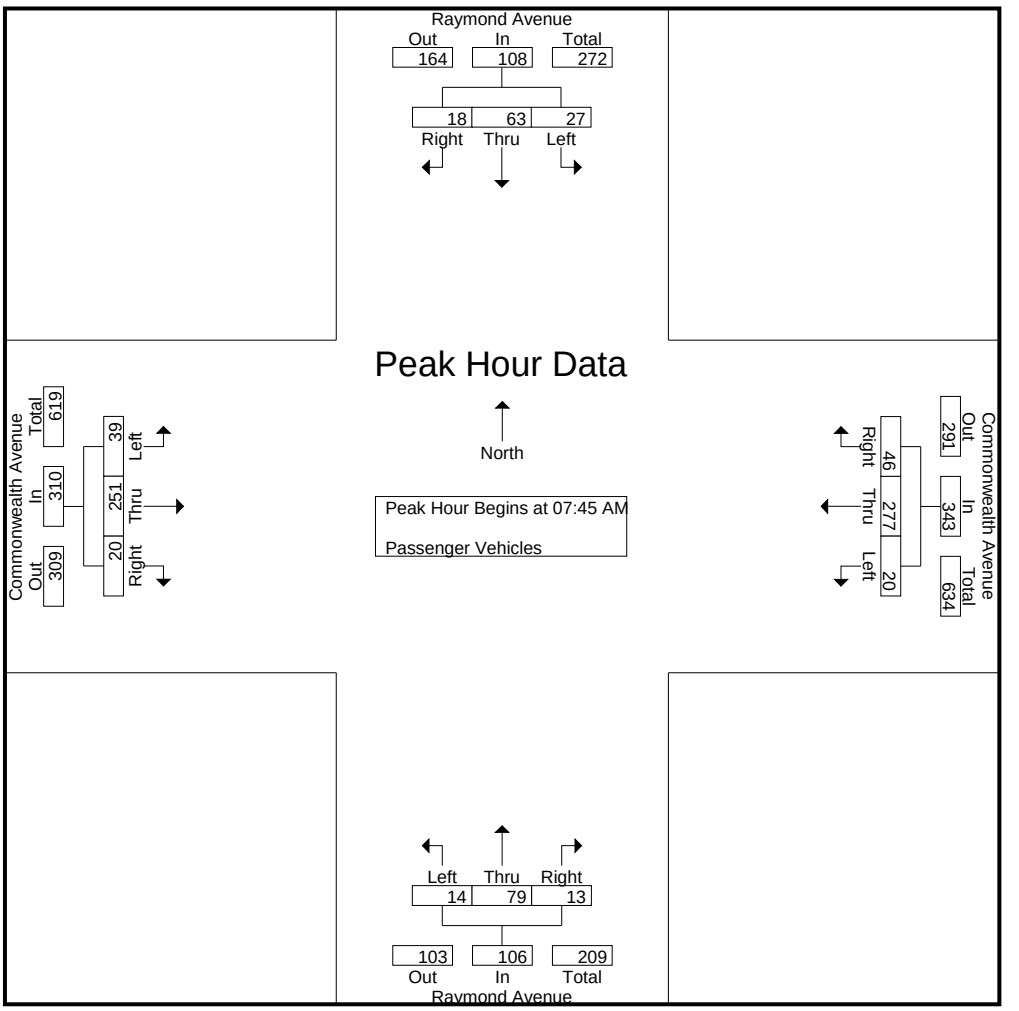

Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	8	16	**6**	30	3	65	8	76	2	18	0	20	9	61	5	75
+15 mins.	**10**	**23**	6	**39**	6	**79**	11	**96**	4	20	3	27	10	**80**	3	**93**
+30 mins.	3	12	3	18	4	65	13	82	**5**	18	**7**	**30**	**12**	55	4	71
+45 mins.	6	12	3	21	**7**	68	**14**	89	3	**23**	3	29	8	55	**8**	71
Total Volume	27	63	18	108	20	277	46	343	14	79	13	106	39	251	20	310
% App. Total	25	58.3	16.7		5.8	80.8	13.4		13.2	74.5	12.3		12.6	81	6.5	
PHF	.675	.685	.750	.692	.714	.877	.821	.893	.700	.859	.464	.883	.813	.784	.625	.833

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Weather: Clear

File Name : 03_AHB_Raymond_Common_AM
Site Code : 04122411
Start Date : 5/5/2022
Page No : 1

Groups Printed- Heavy Trucks

	Raymond Avenue Southbound				Commonwealth Avenue Westbound				Raymond Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	2	0	2	0	2	0	2	0	0	0	0	0	0	0	0	4
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	2	0	2	0	3	0	3	0	0	0	0	1	1	0	2	7
08:00 AM	0	2	0	2	0	1	0	1	0	0	0	0	0	0	0	0	3
08:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	1	1	0	1	0	1	1	1	1	3	5
08:45 AM	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	4
Total	0	3	0	3	0	3	1	4	0	2	0	2	1	2	1	4	13
Grand Total	0	5	0	5	0	6	1	7	0	2	0	2	2	3	1	6	20
Apprch %	0	100	0		0	85.7	14.3		0	100	0		33.3	50	16.7		
Total %	0	25	0	25	0	30	5	35	0	10	0	10	10	15	5	30	

	Raymond Avenue Southbound				Commonwealth Avenue Westbound				Raymond Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	1	1
08:00 AM	0	**2**	0	**2**	0	**1**	0	**1**	0	0	0	0	0	0	0	0	3
08:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	**1**	1	0	**1**	0	**1**	**1**	1	**1**	**3**	**5**
Total Volume	0	2	0	2	0	2	1	3	0	1	0	1	1	2	1	4	10
% App. Total	0	100	0		0	66.7	33.3		0	100	0		25	50	25		
PHF	.000	.250	.000	.250	.000	.500	.250	.750	.000	.250	.000	.250	.250	.500	.250	.333	.500

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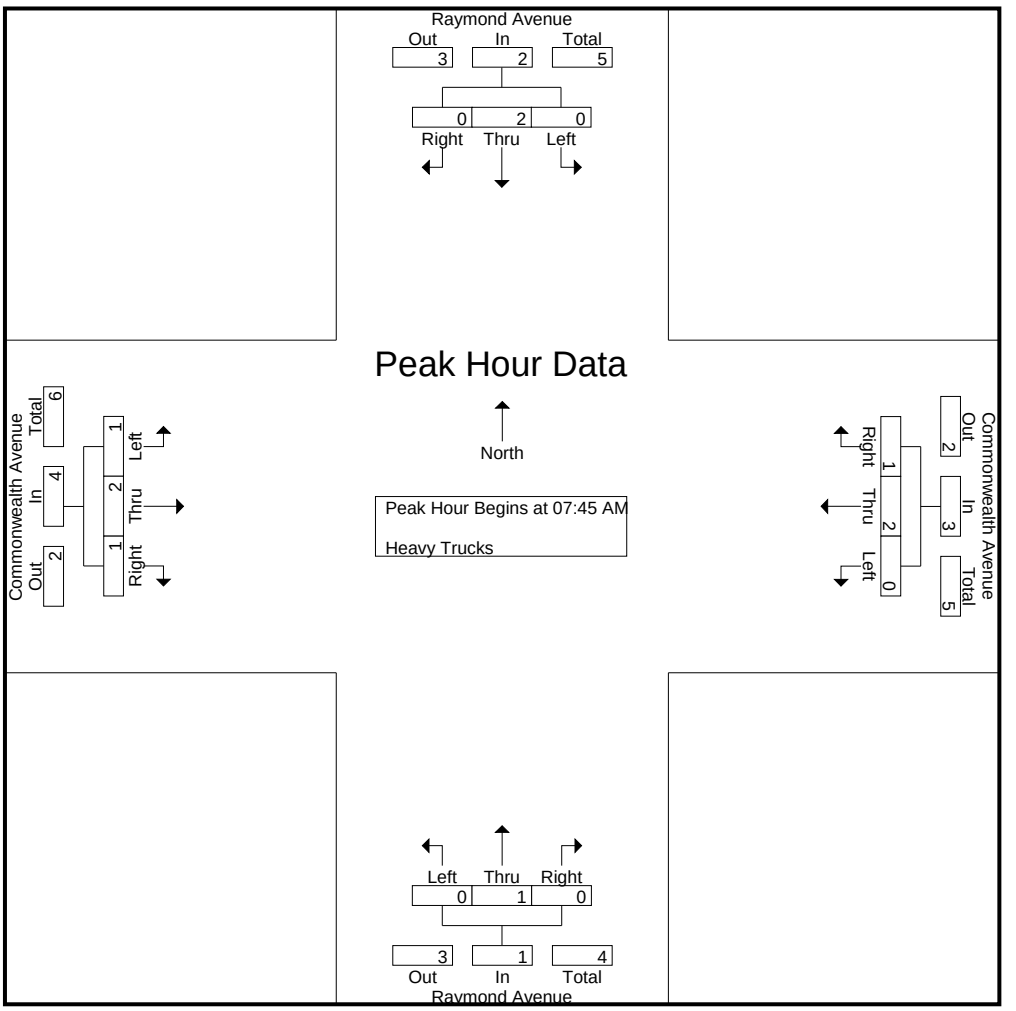

Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	1
+15 mins.	0	**2**	0	**2**	0	**1**	0	**1**	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	**1**	1	0	**1**	0	**1**	**1**	1	**1**	**3**
Total Volume	0	2	0	2	0	2	1	3	0	1	0	1	1	2	1	4
% App. Total	0	100	0		0	66.7	33.3		0	100	0		25	50	25	
PHF	.000	.250	.000	.250	.000	.500	.250	.750	.000	.250	.000	.250	.250	.500	.250	.333

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City of Alhambra
N/S: Raymond Avenue
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Weather: Clear

File Name : 03_AHB_Raymond_Common_AM
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Groups Printed- Buses

	Raymond Avenue Southbound				Commonwealth Avenue Westbound				Raymond Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
07:15 AM	2	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1	3
07:30 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	3
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	2	0	0	2	0	4	0	4	0	0	0	0	0	3	0	3	9
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
08:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
Grand Total	2	0	0	2	0	6	0	6	0	0	0	0	0	5	0	5	13
Apprch %	100	0	0		0	100	0		0	0	0		0	100	0		
Total %	15.4	0	0	15.4	0	46.2	0	46.2	0	0	0	0	0	38.5	0	38.5	

	Raymond Avenue Southbound				Commonwealth Avenue Westbound				Raymond Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	**1**	1
08:00 AM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	1	0	1	**2**
08:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	5
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.750	.000	.750	.625

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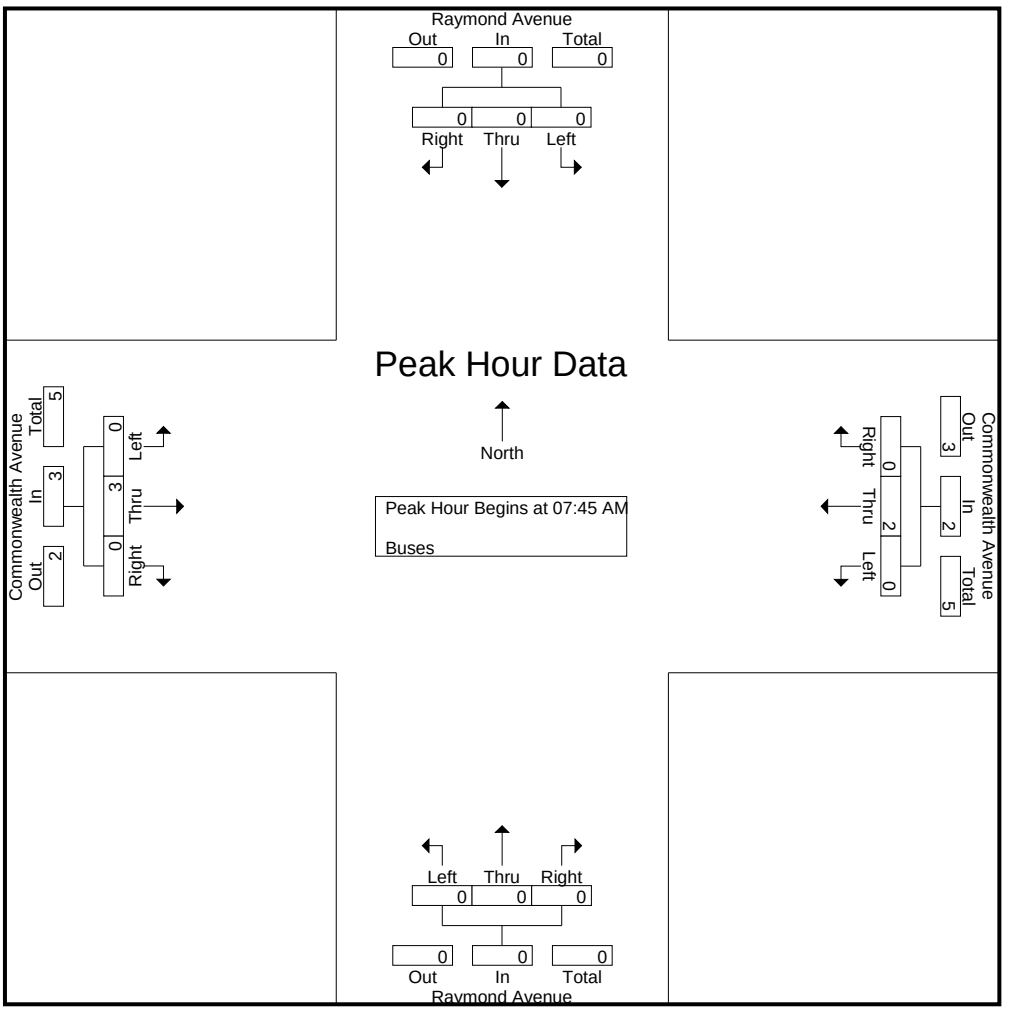
City of Alhambra
N/S: Raymond Avenue
E/W: Commonwealth Avenue
Weather: Clear

File Name : 03_AHB_Raymond_Common_AM
Site Code : 04122411
Start Date : 5/5/2022
Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	**1**
+15 mins.	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0	
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.750	.000	.750

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City of Alhambra
N/S: Raymond Avenue
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Weather: Clear

File Name : 03_AHB_Raymond_Common_PM
Site Code : 04122411
Start Date : 5/5/2022
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Trucks - Buses

	Raymond Avenue Southbound				Commonwealth Avenue Westbound				Raymond Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	18	23	2	43	4	95	9	108	9	26	7	42	15	84	10	109	302
04:15 PM	6	15	7	28	5	86	9	100	10	16	5	31	17	88	4	109	268
04:30 PM	12	17	8	37	1	78	7	86	10	29	5	44	16	94	7	117	284
04:45 PM	12	10	7	29	3	97	15	115	8	26	1	35	14	104	4	122	301
Total	48	65	24	137	13	356	40	409	37	97	18	152	62	370	25	457	1155
05:00 PM	11	25	6	42	8	73	3	84	10	23	11	44	15	97	5	117	287
05:15 PM	12	21	11	44	5	71	11	87	4	25	9	38	18	102	6	126	295
05:30 PM	12	24	4	40	6	70	11	87	5	21	10	36	23	115	7	145	308
05:45 PM	12	14	5	31	3	67	4	74	9	30	4	43	10	97	9	116	264
Total	47	84	26	157	22	281	29	332	28	99	34	161	66	411	27	504	1154
Grand Total	95	149	50	294	35	637	69	741	65	196	52	313	128	781	52	961	2309
Apprch %	32.3	50.7	17		4.7	86	9.3		20.8	62.6	16.6		13.3	81.3	5.4		
Total %	4.1	6.5	2.2	12.7	1.5	27.6	3	32.1	2.8	8.5	2.3	13.6	5.5	33.8	2.3	41.6	
Passenger Vehicles	94	148	50	292	35	629	69	733	64	194	52	310	128	771	52	951	2286
% Passenger Vehicles	98.9	99.3	100	99.3	100	98.7	100	98.9	98.5	99	100	99	100	98.7	100	99	99
Heavy Trucks	1	1	0	2	0	1	0	1	1	2	0	3	0	2	0	2	8
% Heavy Trucks	1.1	0.7	0	0.7	0	0.2	0	0.1	1.5	1	0	1	0	0.3	0	0.2	0.3
Buses	0	0	0	0	0	7	0	7	0	0	0	0	0	8	0	8	15
% Buses	0	0	0	0	0	1.1	0	0.9	0	0	0	0	0	1	0	0.8	0.6

	Raymond Avenue Southbound				Commonwealth Avenue Westbound				Raymond Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**12**	10	7	29	3	**97**	**15**	**115**	8	**26**	1	35	14	104	4	122	301
05:00 PM	11	**25**	6	42	**8**	73	3	84	**10**	23	**11**	**44**	15	97	5	117	287
05:15 PM	12	21	**11**	**44**	5	71	11	87	4	25	9	38	18	102	6	126	295
05:30 PM	12	24	4	40	6	70	11	87	5	21	10	36	**23**	**115**	**7**	**145**	**308**
Total Volume	47	80	28	155	22	311	40	373	27	95	31	153	70	418	22	510	1191
% App. Total	30.3	51.6	18.1		5.9	83.4	10.7		17.6	62.1	20.3		13.7	82	4.3		
PHF	.979	.800	.636	.881	.688	.802	.667	.811	.675	.913	.705	.869	.761	.909	.786	.879	.967

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Weather: Clear

File Name : 03_AHB_Raymond_Common_PM
Site Code : 04122411
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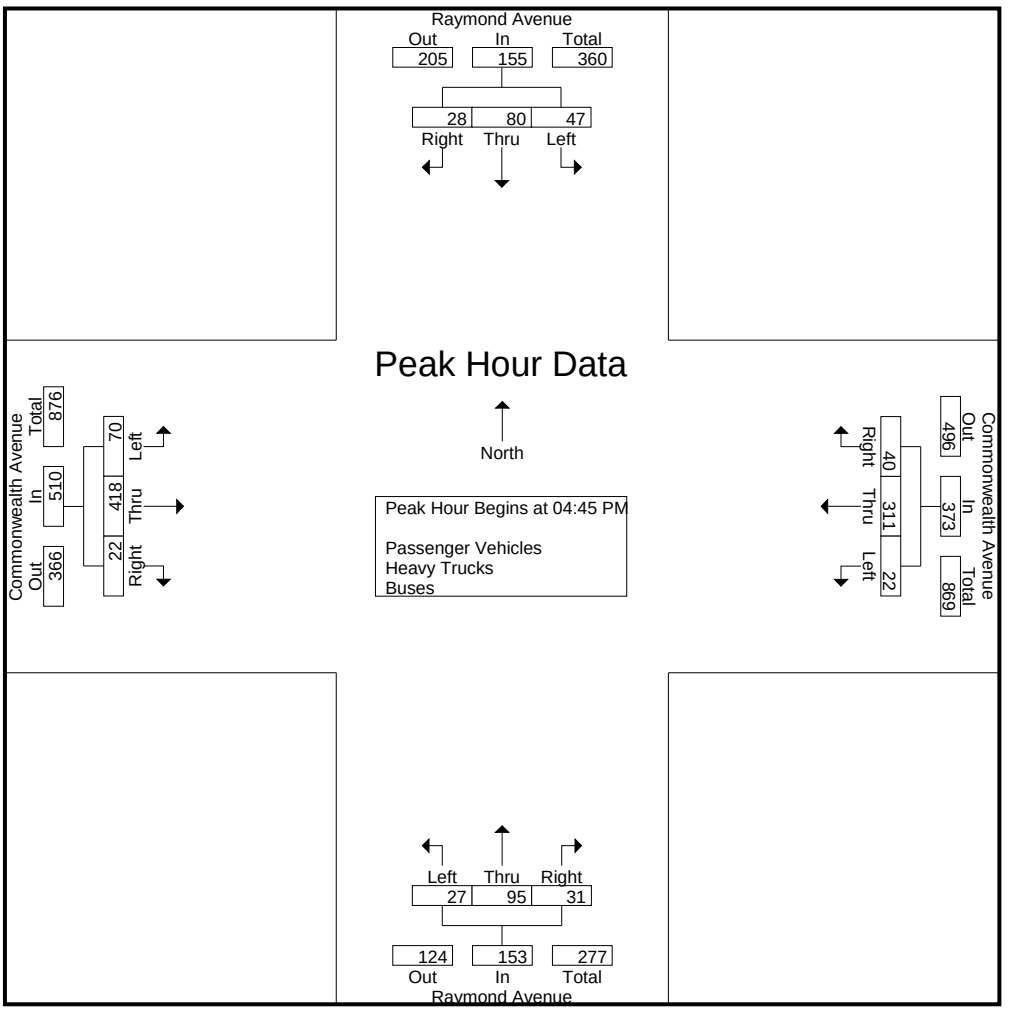

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:00 PM				04:30 PM				04:45 PM			
+0 mins.	11	**25**	6	42	4	95	9	108	**10**	**29**	5	**44**	14	104	4	122
+15 mins.	**12**	21	**11**	**44**	**5**	86	9	100	8	26	1	35	15	97	5	117
+30 mins.	12	24	4	40	1	78	7	86	10	23	**11**	44	18	102	6	126
+45 mins.	12	14	5	31	3	**97**	**15**	**115**	4	25	9	38	**23**	**115**	**7**	**145**
Total Volume	47	84	26	157	13	356	40	409	32	103	26	161	70	418	22	510
% App. Total	29.9	53.5	16.6		3.2	87	9.8		19.9	64	16.1		13.7	82	4.3	
PHF	.979	.840	.591	.892	.650	.918	.667	.889	.800	.888	.591	.915	.761	.909	.786	.879

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Start Date : 5/5/2022
Page No : 1

Groups Printed- Passenger Vehicles

	Raymond Avenue Southbound				Commonwealth Avenue Westbound				Raymond Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	18	23	2	43	4	93	9	106	9	26	7	42	15	82	10	107	298
04:15 PM	6	15	7	28	5	85	9	99	9	15	5	29	17	87	4	108	264
04:30 PM	12	17	8	37	1	77	7	85	10	29	5	44	16	93	7	116	282
04:45 PM	11	10	7	28	3	97	15	115	8	26	1	35	14	103	4	121	299
Total	47	65	24	136	13	352	40	405	36	96	18	150	62	365	25	452	1143
05:00 PM	11	25	6	42	8	73	3	84	10	23	11	44	15	96	5	116	286
05:15 PM	12	21	11	44	5	70	11	86	4	25	9	38	18	102	6	126	294
05:30 PM	12	24	4	40	6	69	11	86	5	21	10	36	23	112	7	142	304
05:45 PM	12	13	5	30	3	65	4	72	9	29	4	42	10	96	9	115	259
Total	47	83	26	156	22	277	29	328	28	98	34	160	66	406	27	499	1143
Grand Total	94	148	50	292	35	629	69	733	64	194	52	310	128	771	52	951	2286
Apprch %	32.2	50.7	17.1		4.8	85.8	9.4		20.6	62.6	16.8		13.5	81.1	5.5		
Total %	4.1	6.5	2.2	12.8	1.5	27.5	3	32.1	2.8	8.5	2.3	13.6	5.6	33.7	2.3	41.6	

	Raymond Avenue Southbound				Commonwealth Avenue Westbound				Raymond Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	11	10	7	28	3	**97**	**15**	**115**	8	**26**	1	35	14	103	4	121	299
05:00 PM	11	**25**	6	42	**8**	73	3	84	**10**	23	**11**	**44**	15	96	5	116	286
05:15 PM	**12**	21	**11**	**44**	5	70	11	86	4	25	9	38	18	102	6	126	294
05:30 PM	12	24	4	40	6	69	11	86	5	21	10	36	**23**	**112**	**7**	**142**	**304**
Total Volume	46	80	28	154	22	309	40	371	27	95	31	153	70	413	22	505	1183
% App. Total	29.9	51.9	18.2		5.9	83.3	10.8		17.6	62.1	20.3		13.9	81.8	4.4		
PHF	.958	.800	.636	.875	.688	.796	.667	.807	.675	.913	.705	.869	.761	.922	.786	.889	.973

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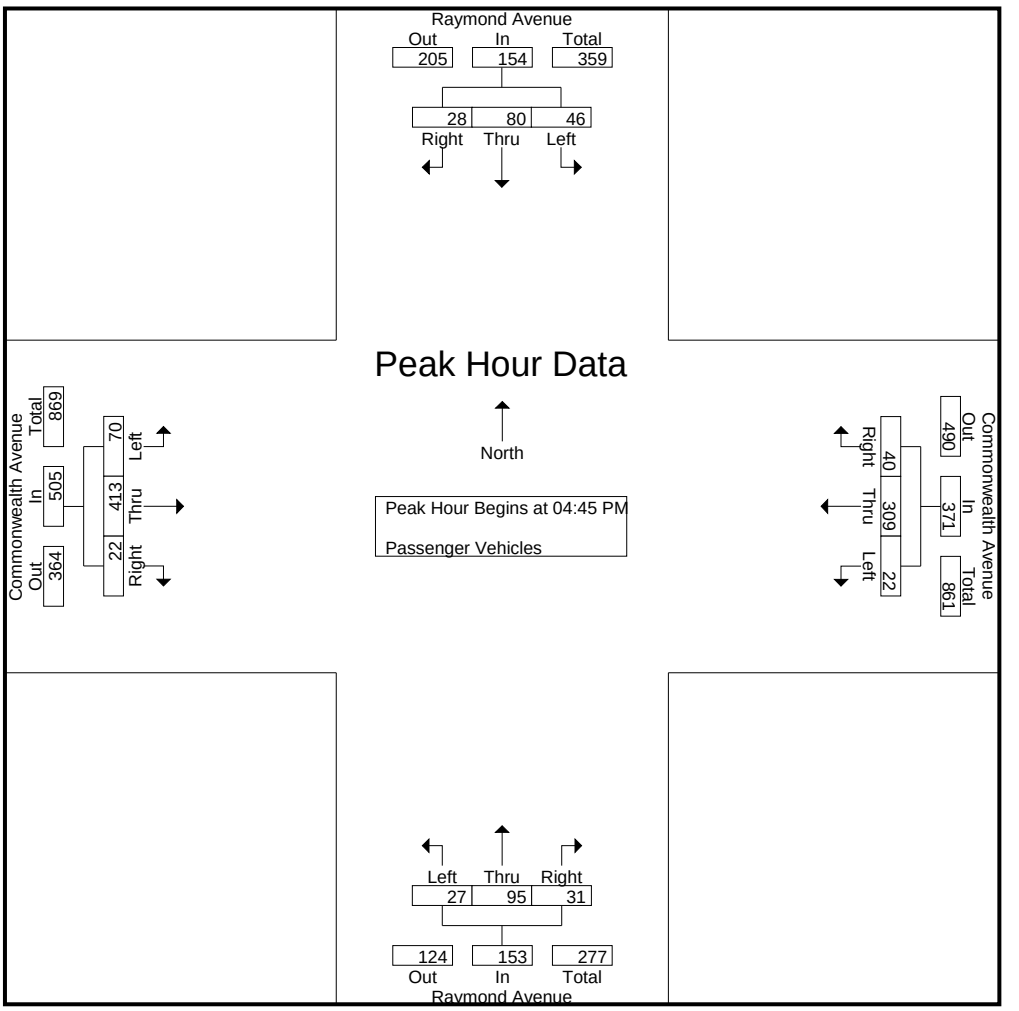

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	11	10	7	28	3	**97**	**15**	**115**	8	**26**	1	35	14	103	4	121
+15 mins.	11	**25**	6	42	**8**	73	3	84	**10**	23	**11**	**44**	15	96	5	116
+30 mins.	**12**	21	**11**	**44**	5	70	11	86	4	25	9	38	18	102	6	126
+45 mins.	12	24	4	40	6	69	11	86	5	21	10	36	**23**	**112**	**7**	**142**
Total Volume	46	80	28	154	22	309	40	371	27	95	31	153	70	413	22	505
% App. Total	29.9	51.9	18.2		5.9	83.3	10.8		17.6	62.1	20.3		13.9	81.8	4.4	
PHF	.958	.800	.636	.875	.688	.796	.667	.807	.675	.913	.705	.869	.761	.922	.786	.889

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City of Alhambra
N/S: Raymond Avenue
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Weather: Clear

File Name : 03_AHB_Raymond_Common_PM
Site Code : 04122411
Start Date : 5/5/2022

Groups Printed- Heavy Trucks

	Raymond Avenue Southbound				Commonwealth Avenue Westbound				Raymond Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:15 PM	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	0	0	1	0	0	0	0	1	1	0	2	0	1	0	1	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:45 PM	0	1	0	1	0	1	0	1	0	1	0	1	0	0	0	0	3
Total	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	4
Grand Total	1	1	0	2	0	1	0	1	1	2	0	3	0	2	0	2	8
Apprch %	50	50	0		0	100	0		33.3	66.7	0		0	100	0		
Total %	12.5	12.5	0	25	0	12.5	0	12.5	12.5	25	0	37.5	0	25	0	25	

	Raymond Avenue Southbound				Commonwealth Avenue Westbound				Raymond Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	**1**
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	**1**	1
Total Volume	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
% App. Total	100	0	0		0	0	0		0	0	0		0	100	0		
PHF	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.500

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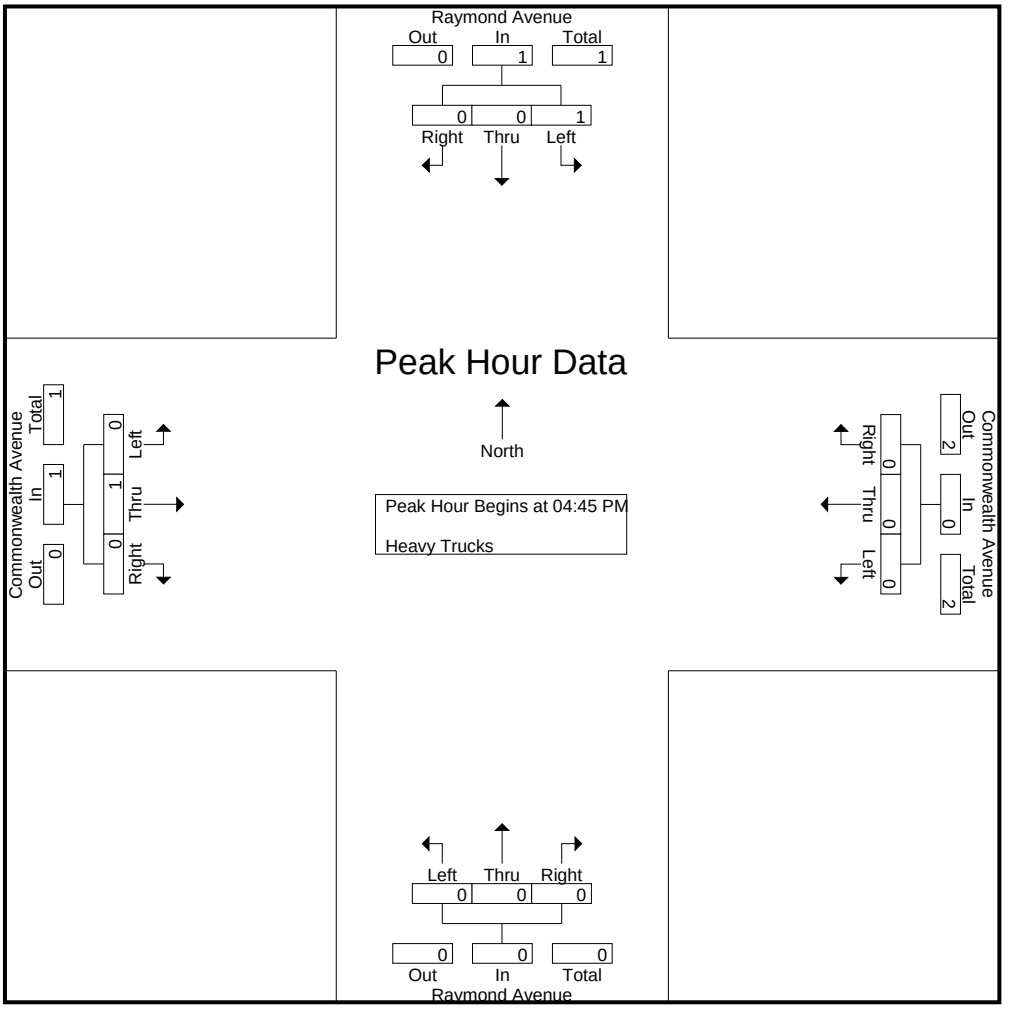

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	**1**
Total Volume	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1
% App. Total	100	0	0		0	0	0		0	0	0		0	100	0	
PHF	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250

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Groups Printed- Buses

	Raymond Avenue Southbound				Commonwealth Avenue Westbound				Raymond Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
04:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	4	0	4	0	0	0	0	0	4	0	4	8
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
05:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
Total	0	0	0	0	0	3	0	3	0	0	0	0	0	4	0	4	7
Grand Total	0	0	0	0	0	7	0	7	0	0	0	0	0	8	0	8	15
Apprch %	0	0	0		0	100	0		0	0	0		0	100	0		
Total %	0	0	0	0	0	46.7	0	46.7	0	0	0	0	0	53.3	0	53.3	

	Raymond Avenue Southbound				Commonwealth Avenue Westbound				Raymond Avenue Northbound				Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:15 PM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	**2**	0	**2**	**3**
Total Volume	0	0	0	0	0	2	0	2	0	0	0	0	0	4	0	4	6
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.500	.000	.500	.500

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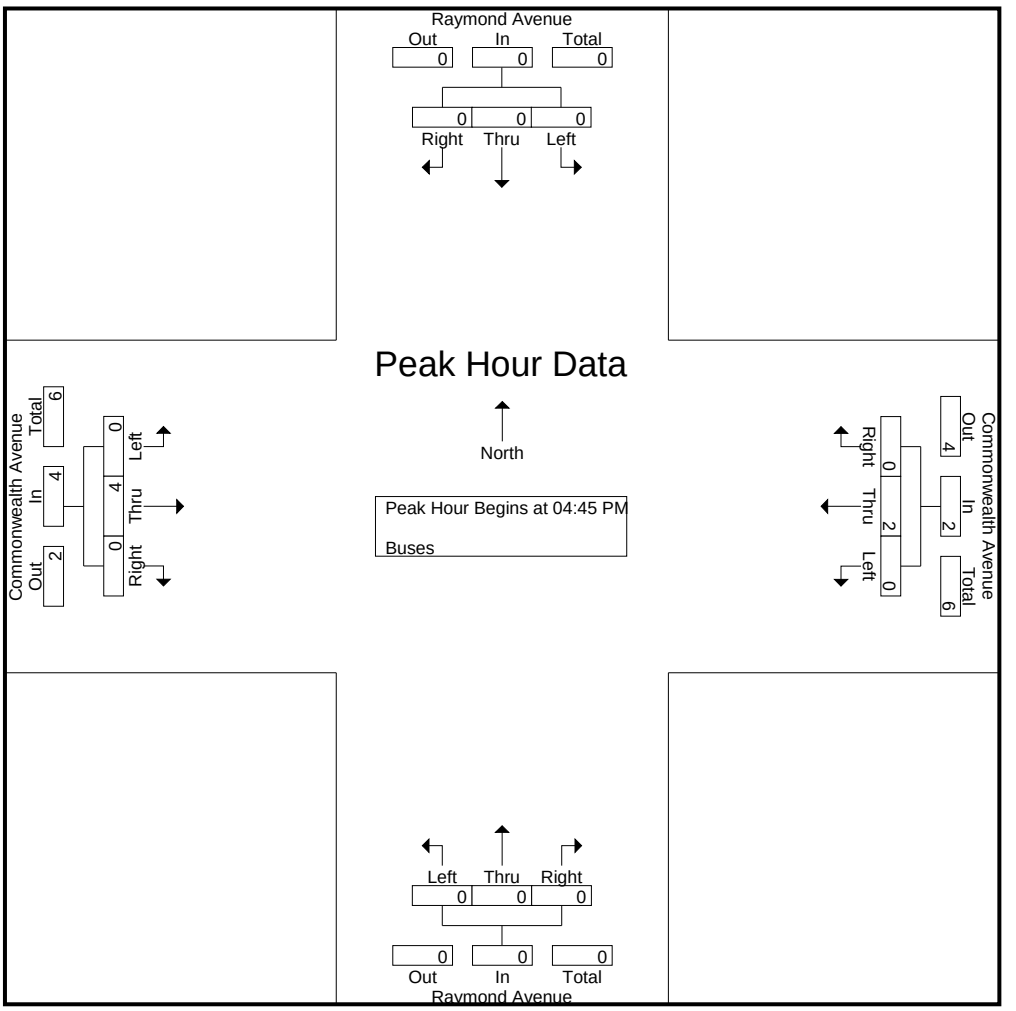

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	**2**	0	**2**
Total Volume	0	0	0	0	0	2	0	2	0	0	0	0	0	4	0	4
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0	
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.500	.000	.500

Location: Alhambra
N/S: Raymond Avenue
E/W: Commonwealth Avenue

Date: 5/5/2022
Day: Thursday

PEDESTRIANS

	North Leg Raymond Avenue	East Leg Commonwealth Avenue	South Leg Raymond Avenue	West Leg Commonwealth Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	1	0	0	1
7:30 AM	0	0	1	0	1
7:45 AM	1	1	1	0	3
8:00 AM	1	0	0	1	2
8:15 AM	0	2	1	0	3
8:30 AM	2	1	2	0	5
8:45 AM	2	0	0	0	2
TOTAL VOLUMES:	6	5	5	1	17

	North Leg Raymond Avenue	East Leg Commonwealth Avenue	South Leg Raymond Avenue	West Leg Commonwealth Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	6	0	2	0	8
4:15 PM	0	0	0	2	2
4:30 PM	1	0	0	2	3
4:45 PM	1	0	1	0	2
5:00 PM	1	0	2	4	7
5:15 PM	0	1	2	0	3
5:30 PM	5	2	0	1	8
5:45 PM	0	0	1	0	1
TOTAL VOLUMES:	14	3	8	9	34

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Location: Alhambra
N/S: Raymond Avenue
E/W: Commonwealth Avenue

Date: 5/5/2022
Day: Thursday

BICYCLES

	Southbound Raymond Avenue			Westbound Commonwealth Avenue			Northbound Raymond Avenue			Eastbound Commonwealth Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	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	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	1	1	0	0	0	0	0	0	0	2
8:30 AM	0	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	2	0	2
TOTAL VOLUMES:	0	1	0	2	1	0	0	0	0	0	2	0	6

	Southbound Raymond Avenue			Westbound Commonwealth Avenue			Northbound Raymond Avenue			Eastbound Commonwealth Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	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	0
4:30 PM	0	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	0
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	0	1
5:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
TOTAL VOLUMES:	0	0	0	0	0	0	0	2	1	0	2	0	5

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City of Alhambra
N/S: Palm Avenue
E/W: Costco Driveway 2
Weather: Clear

File Name : 06_AHB_Palm_Costco Dwy 2_PM
Site Code : 04122411
Start Date : 5/5/2022
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Trucks - Buses

	Palm Avenue Southbound				Teagarden Lane Westbound				Palm Avenue Northbound				Costco Driveway 2 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	118	32	150	0	0	0	0	11	86	0	97	21	0	12	33	280
04:15 PM	0	125	39	164	0	0	1	1	13	94	1	108	25	0	13	38	311
04:30 PM	0	117	54	171	0	0	0	0	5	79	0	84	26	0	21	47	302
04:45 PM	2	95	31	128	1	0	0	1	14	107	0	121	25	0	19	44	294
Total	2	455	156	613	1	0	1	2	43	366	1	410	97	0	65	162	1187
05:00 PM	1	107	39	147	0	0	1	1	10	126	0	136	19	0	18	37	321
05:15 PM	0	112	34	146	0	0	0	0	14	91	0	105	26	0	15	41	292
05:30 PM	0	119	26	145	1	0	0	1	13	90	0	103	9	0	20	29	278
05:45 PM	0	113	32	145	0	0	0	0	10	101	1	112	30	0	21	51	308
Total	1	451	131	583	1	0	1	2	47	408	1	456	84	0	74	158	1199
Grand Total	3	906	287	1196	2	0	2	4	90	774	2	866	181	0	139	320	2386
Apprch %	0.3	75.8	24		50	0	50		10.4	89.4	0.2		56.6	0	43.4		
Total %	0.1	38	12	50.1	0.1	0	0.1	0.2	3.8	32.4	0.1	36.3	7.6	0	5.8	13.4	
Passenger Vehicles	3	892	286	1181	2	0	2	4	89	764	2	855	181	0	139	320	2360
% Passenger Vehicles	100	98.5	99.7	98.7	100	0	100	100	98.9	98.7	100	98.7	100	0	100	100	98.9
Heavy Trucks	0	7	0	7	0	0	0	0	1	4	0	5	0	0	0	0	12
% Heavy Trucks	0	0.8	0	0.6	0	0	0	0	1.1	0.5	0	0.6	0	0	0	0	0.5
Buses	0	7	1	8	0	0	0	0	0	6	0	6	0	0	0	0	14
% Buses	0	0.8	0.3	0.7	0	0	0	0	0	0.8	0	0.7	0	0	0	0	0.6

	Palm Avenue Southbound				Teagarden Lane Westbound				Palm Avenue Northbound				Costco Driveway 2 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	**125**	39	164	0	0	**1**	**1**	13	94	**1**	108	25	0	13	38	311
04:30 PM	0	117	**54**	**171**	0	0	0	0	5	79	0	84	**26**	0	**21**	**47**	302
04:45 PM	**2**	95	31	128	**1**	0	0	1	**14**	107	0	121	25	0	19	44	294
05:00 PM	1	107	39	147	0	0	1	1	10	**126**	0	**136**	19	0	18	37	**321**
Total Volume	3	444	163	610	1	0	2	3	42	406	1	449	95	0	71	166	1228
% App. Total	0.5	72.8	26.7		33.3	0	66.7		9.4	90.4	0.2		57.2	0	42.8		
PHF	.375	.888	.755	.892	.250	.000	.500	.750	.750	.806	.250	.825	.913	.000	.845	.883	.956

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City of Alhambra
N/S: Palm Avenue
E/W: Costco Driveway 2
Weather: Clear

File Name : 06_AHB_Palm_Costco Dwy 2_PM
Site Code : 04122411
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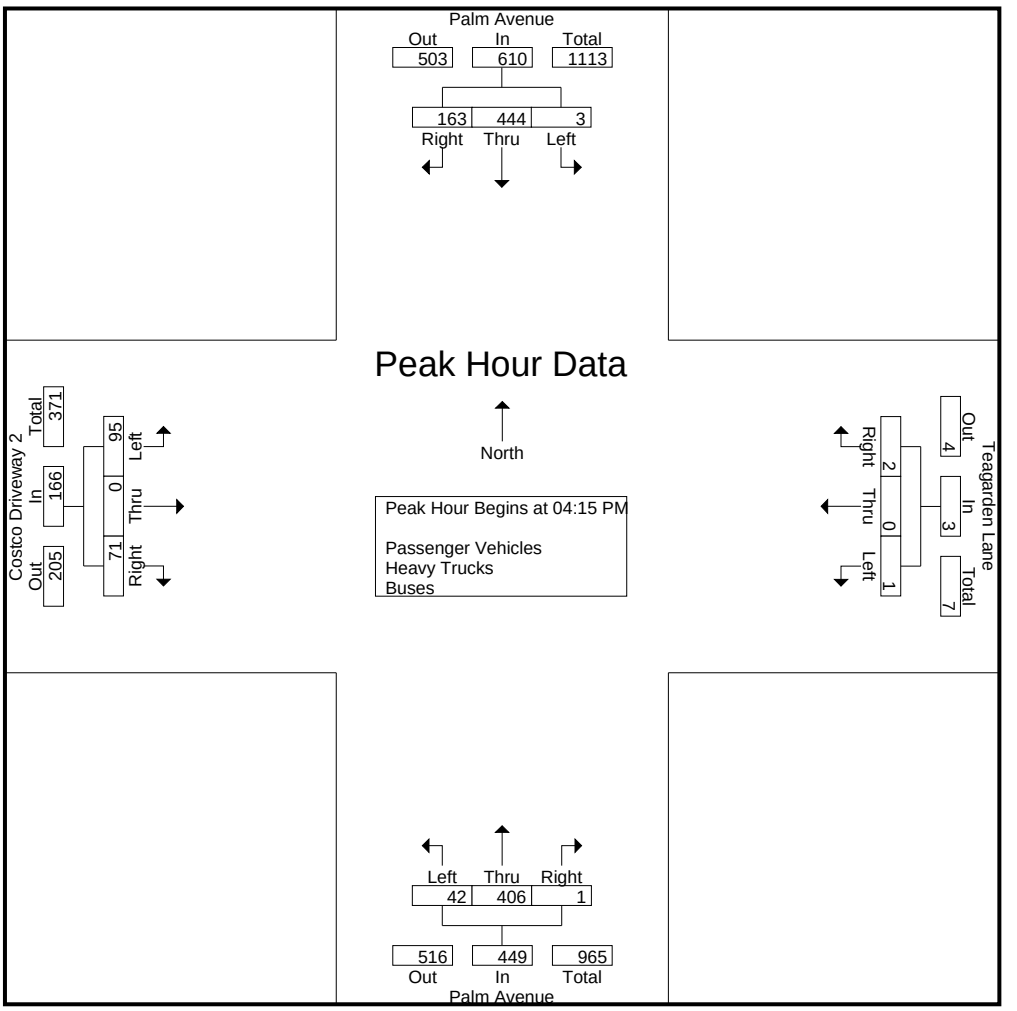

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:15 PM				04:45 PM				04:30 PM			
+0 mins.	0	118	32	150	0	0	**1**	**1**	**14**	107	0	121	**26**	0	**21**	**47**
+15 mins.	0	**125**	39	164	0	0	0	0	10	**126**	0	**136**	25	0	19	44
+30 mins.	0	117	**54**	**171**	**1**	0	0	1	14	91	0	105	19	0	18	37
+45 mins.	**2**	95	31	128	0	0	1	1	13	90	0	103	26	0	15	41
Total Volume	2	455	156	613	1	0	2	3	51	414	0	465	96	0	73	169
% App. Total	0.3	74.2	25.4		33.3	0	66.7		11	89	0		56.8	0	43.2	
PHF	.250	.910	.722	.896	.250	.000	.500	.750	.911	.821	.000	.855	.923	.000	.869	.899

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City of Alhambra
N/S: Palm Avenue
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Weather: Clear

File Name : 06_AHB_Palm_Costco Dwy 2_PM
Site Code : 04122411
Start Date : 5/5/2022

Groups Printed- Passenger Vehicles

	Palm Avenue Southbound				Teagarden Lane Westbound				Palm Avenue Northbound				Costco Driveway 2 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	116	32	148	0	0	0	0	11	85	0	96	21	0	12	33	277
04:15 PM	0	125	39	164	0	0	1	1	13	92	1	106	25	0	13	38	309
04:30 PM	0	115	53	168	0	0	0	0	5	77	0	82	26	0	21	47	297
04:45 PM	2	94	31	127	1	0	0	1	14	105	0	119	25	0	19	44	291
Total	2	450	155	607	1	0	1	2	43	359	1	403	97	0	65	162	1174
05:00 PM	1	106	39	146	0	0	1	1	10	126	0	136	19	0	18	37	320
05:15 PM	0	110	34	144	0	0	0	0	14	89	0	103	26	0	15	41	288
05:30 PM	0	116	26	142	1	0	0	1	13	90	0	103	9	0	20	29	275
05:45 PM	0	110	32	142	0	0	0	0	9	100	1	110	30	0	21	51	303
Total	1	442	131	574	1	0	1	2	46	405	1	452	84	0	74	158	1186
Grand Total	3	892	286	1181	2	0	2	4	89	764	2	855	181	0	139	320	2360
Apprch %	0.3	75.5	24.2		50	0	50		10.4	89.4	0.2		56.6	0	43.4		
Total %	0.1	37.8	12.1	50	0.1	0	0.1	0.2	3.8	32.4	0.1	36.2	7.7	0	5.9	13.6	

	Palm Avenue Southbound				Teagarden Lane Westbound				Palm Avenue Northbound				Costco Driveway 2 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	**125**	39	164	0	0	**1**	**1**	13	92	**1**	106	25	0	13	38	309
04:30 PM	0	115	**53**	**168**	0	0	0	0	5	77	0	82	**26**	0	**21**	**47**	297
04:45 PM	**2**	94	31	127	**1**	0	0	1	**14**	105	0	119	25	0	19	44	291
05:00 PM	1	106	39	146	0	0	1	1	10	**126**	0	**136**	19	0	18	37	**320**
Total Volume	3	440	162	605	1	0	2	3	42	400	1	443	95	0	71	166	1217
% App. Total	0.5	72.7	26.8		33.3	0	66.7		9.5	90.3	0.2		57.2	0	42.8		
PHF	.375	.880	.764	.900	.250	.000	.500	.750	.750	.794	.250	.814	.913	.000	.845	.883	.951

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City of Alhambra
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Weather: Clear

File Name : 06_AHB_Palm_Costco Dwy 2_PM
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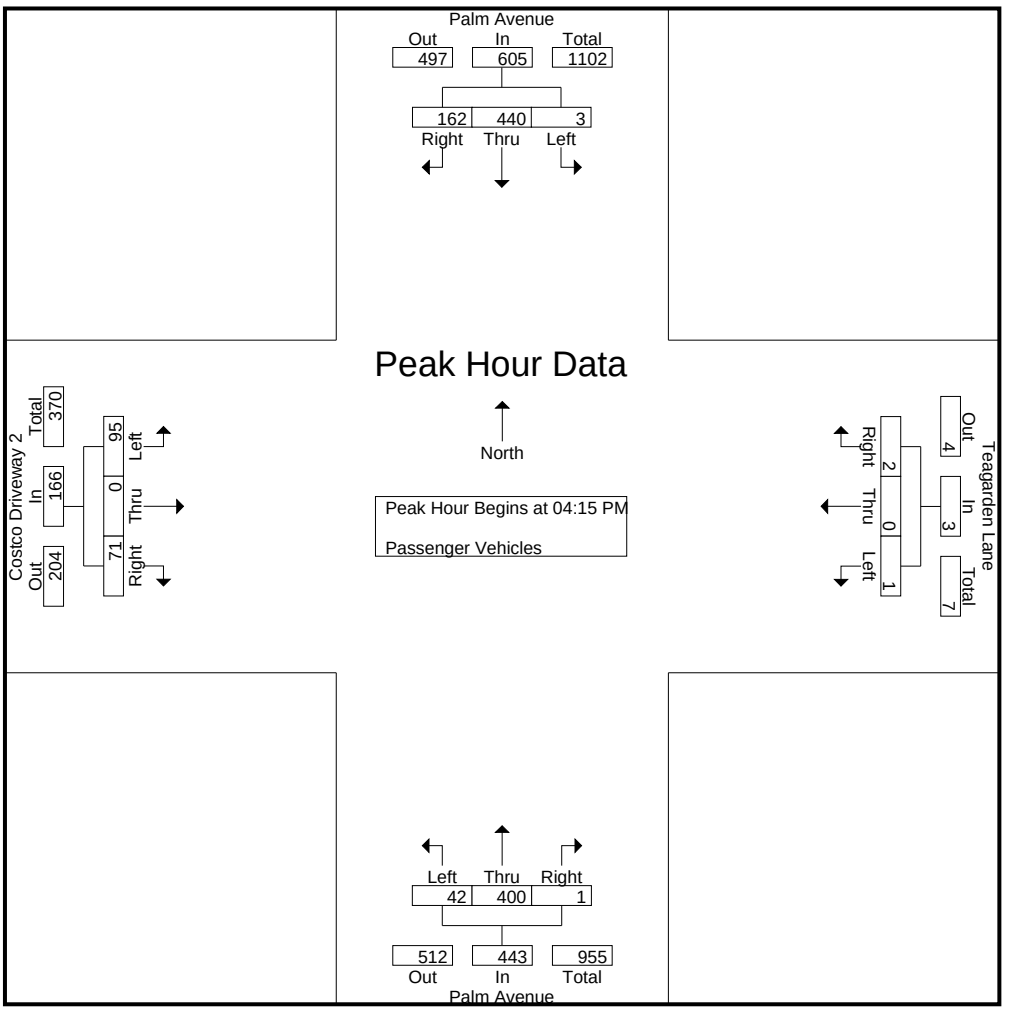

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:15 PM				04:15 PM				04:15 PM			
+0 mins.	0	**125**	39	164	0	0	**1**	**1**	13	92	**1**	106	25	0	13	38
+15 mins.	0	115	**53**	**168**	0	0	0	0	5	77	0	82	**26**	0	**21**	**47**
+30 mins.	**2**	94	31	127	**1**	0	0	1	**14**	105	0	119	25	0	19	44
+45 mins.	1	106	39	146	0	0	1	1	10	**126**	0	**136**	19	0	18	37
Total Volume	3	440	162	605	1	0	2	3	42	400	1	443	95	0	71	166
% App. Total	0.5	72.7	26.8		33.3	0	66.7		9.5	90.3	0.2		57.2	0	42.8	
PHF	.375	.880	.764	.900	.250	.000	.500	.750	.750	.794	.250	.814	.913	.000	.845	.883

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City of Alhambra
N/S: Palm Avenue
E/W: Costco Driveway 2
Weather: Clear

File Name : 06_AHB_Palm_Costco Dwy 2_PM
Site Code : 04122411
Start Date : 5/5/2022
Page No : 1

Groups Printed- Heavy Trucks

	Palm Avenue Southbound				Teagarden Lane Westbound				Palm Avenue Northbound				Costco Driveway 2 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
04:30 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	0	4	0	4	0	0	0	0	5
05:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
05:45 PM	0	2	0	2	0	0	0	0	1	0	0	1	0	0	0	0	3
Total	0	6	0	6	0	0	0	0	1	0	0	1	0	0	0	0	7
Grand Total	0	7	0	7	0	0	0	0	1	4	0	5	0	0	0	0	12
Apprch %	0	100	0		0	0	0		20	80	0		0	0	0		
Total %	0	58.3	0	58.3	0	0	0	0	8.3	33.3	0	41.7	0	0	0	0	

	Palm Avenue Southbound				Teagarden Lane Westbound				Palm Avenue Northbound				Costco Driveway 2 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	0	0	0	0	**2**	0	**2**	0	0	0	0	**2**
04:30 PM	0	**1**	0	**1**	0	0	0	0	0	1	0	1	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	2	0	2	0	0	0	0	0	4	0	4	0	0	0	0	6
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.750

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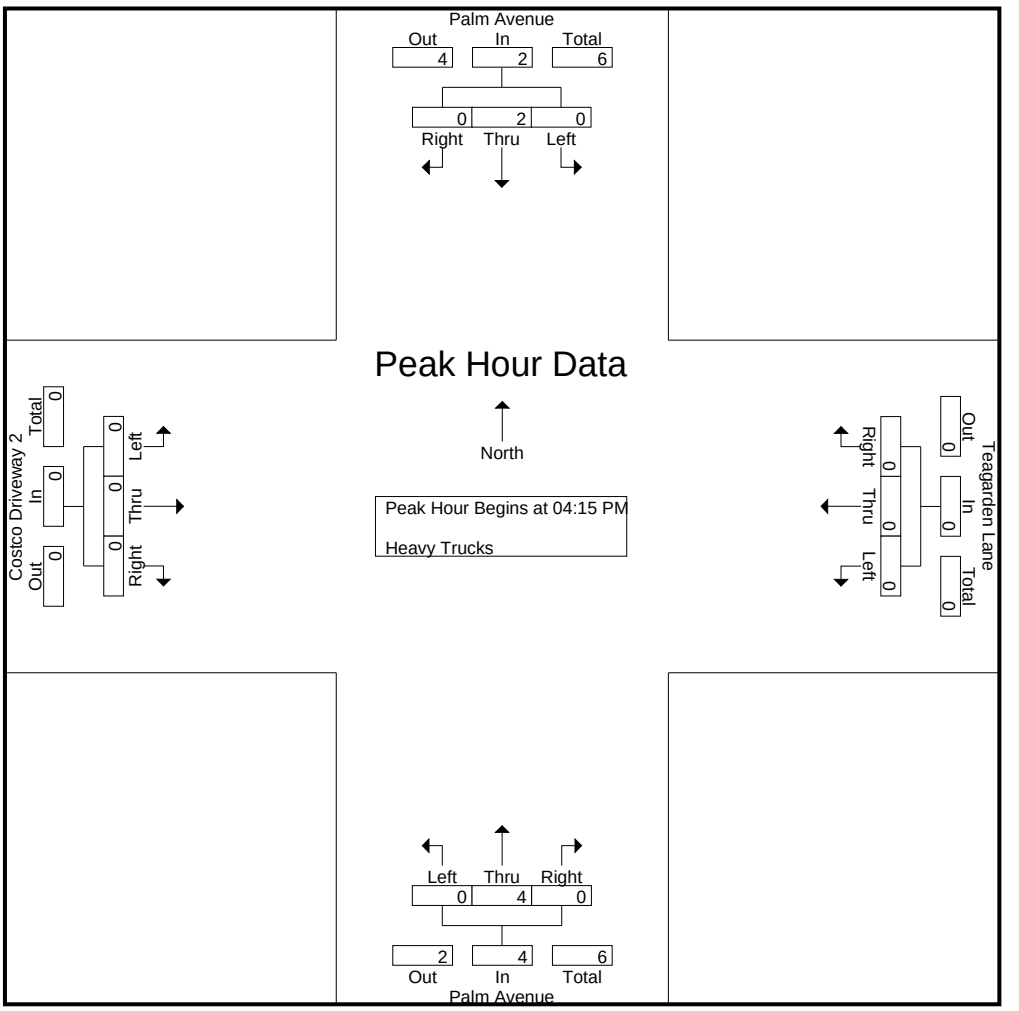

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:15 PM				04:15 PM				04:15 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	**2**	0	**2**	0	0	0	0
+15 mins.	0	**1**	0	**1**	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	0	2	0	0	0	0	0	4	0	4	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000

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City of Alhambra
N/S: Palm Avenue
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Weather: Clear

File Name : 06_AHB_Palm_Costco Dwy 2_PM
Site Code : 04122411
Start Date : 5/5/2022
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Groups Printed- Buses

	Palm Avenue Southbound				Teagarden Lane Westbound				Palm Avenue Northbound				Costco Driveway 2 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	1	2	0	0	0	0	0	1	0	1	0	0	0	0	3
04:45 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Total	0	4	1	5	0	0	0	0	0	3	0	3	0	0	0	0	8
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3
05:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Total	0	3	0	3	0	0	0	0	0	3	0	3	0	0	0	0	6
Grand Total	0	7	1	8	0	0	0	0	0	6	0	6	0	0	0	0	14
Apprch %	0	87.5	12.5		0	0	0		0	100	0		0	0	0		
Total %	0	50	7.1	57.1	0	0	0	0	0	42.9	0	42.9	0	0	0	0	

	Palm Avenue Southbound				Teagarden Lane Westbound				Palm Avenue Northbound				Costco Driveway 2 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	**1**	**1**	**2**	0	0	0	0	0	**1**	0	**1**	0	0	0	0	**3**
04:45 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	1	3	0	0	0	0	0	2	0	2	0	0	0	0	5
% App. Total	0	66.7	33.3		0	0	0		0	100	0		0	0	0		
PHF	.000	.500	.250	.375	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.417

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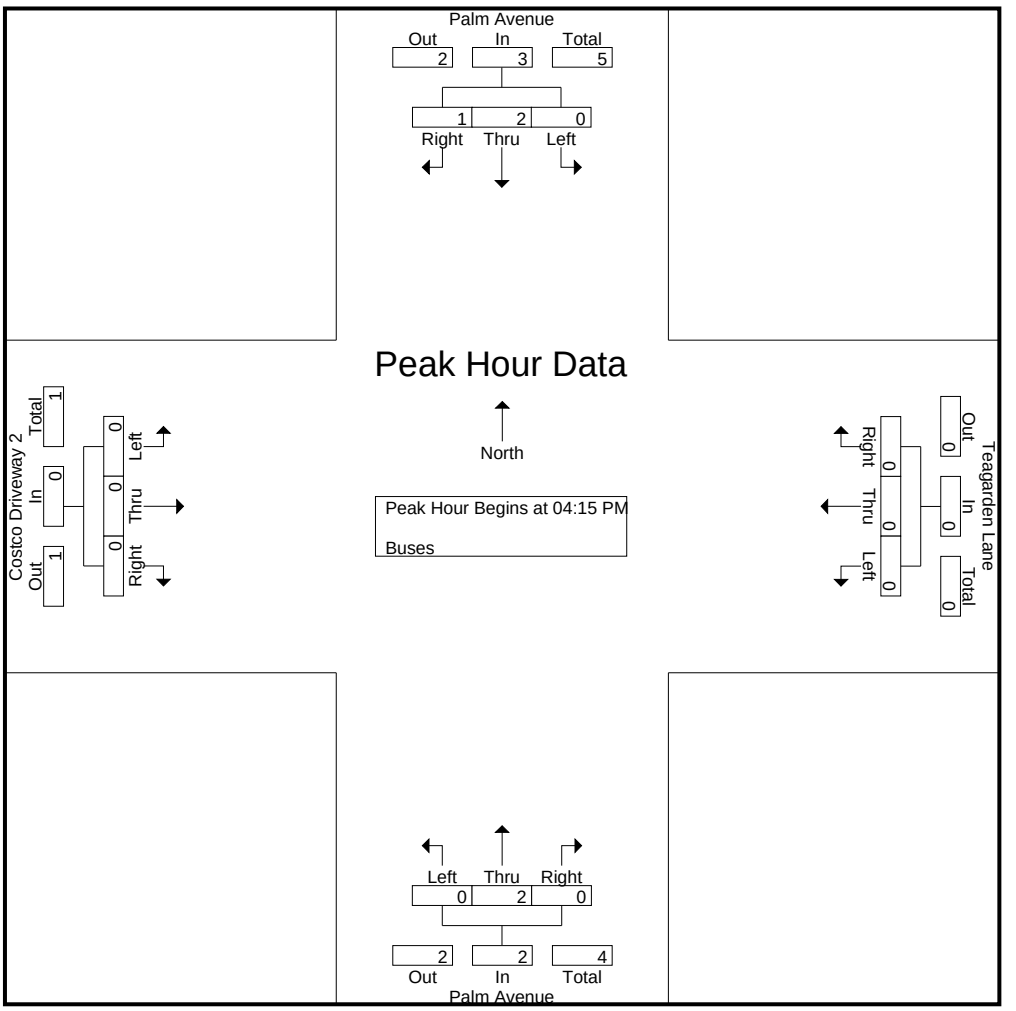
City of Alhambra
N/S: Palm Avenue
E/W: Costco Driveway 2
Weather: Clear

File Name : 06_AHB_Palm_Costco Dwy 2_PM
Site Code : 04122411
Start Date : 5/5/2022
Page No : 2



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:15 PM				04:15 PM				04:15 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	**1**	**1**	**2**	0	0	0	0	0	**1**	0	**1**	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	1	3	0	0	0	0	0	2	0	2	0	0	0	0
% App. Total	0	66.7	33.3		0	0	0		0	100	0		0	0	0	
PHF	.000	.500	.250	.375	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000

Location: Alhambra
N/S: Palm Avenue
E/W: Costco Dwy 2

Date: 5/5/2022
Day: Thursday

PEDESTRIANS

	North Leg Palm Avenue	East Leg Teagarden Lane	South Leg Palm Avenue	West Leg Costco Dwy 2	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	1	1	1	3
4:30 PM	0	2	0	0	2
4:45 PM	0	0	0	5	5
5:00 PM	0	0	0	1	1
5:15 PM	0	1	0	1	2
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	4	1	8	13

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Location: Alhambra
N/S: Palm Avenue
E/W: Costco Dwy 2

Date: 5/5/2022
Day: Thursday

BICYCLES

	Southbound Palm Avenue			Westbound Teagarden Lane			Northbound Palm Avenue			Eastbound Costco Dwy 2			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:15 PM	0	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	0
4:45 PM	0	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	0
5:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	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	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	0	0	0	2	0	1	0	0	4

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City of Alhambra
N/S: Palm Avenue
E/W: Costco Driveway 1
Weather: Clear

File Name : 05_AHB_Palm_Costco Dwy 1_PM
Site Code : 04122411
Start Date : 5/5/2022

Groups Printed- Passenger Vehicles - Heavy Trucks - Buses

	Palm Avenue Southbound				Palm Avenue Northbound			Costco Driveway 1 Eastbound			
Start Time	Thru	Right	Uturn	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	85	41	1	127	65	74	139	23	29	52	318
04:15 PM	93	44	1	138	60	76	136	28	28	56	330
04:30 PM	100	38	0	138	65	62	127	21	28	49	314
04:45 PM	93	34	0	127	66	102	168	22	43	65	360
Total	371	157	2	530	256	314	570	94	128	222	1322
05:00 PM	96	32	1	129	59	107	166	30	30	60	355
05:15 PM	93	31	2	126	48	86	134	18	31	49	309
05:30 PM	96	45	0	141	74	85	159	18	36	54	354
05:45 PM	112	23	3	138	48	93	141	15	32	47	326
Total	397	131	6	534	229	371	600	81	129	210	1344
Grand Total	768	288	8	1064	485	685	1170	175	257	432	2666
Apprch %	72.2	27.1	0.8		41.5	58.5		40.5	59.5		
Total %	28.8	10.8	0.3	39.9	18.2	25.7	43.9	6.6	9.6	16.2	
Passenger Vehicles	754	287	8	1049	484	674	1158	175	253	428	2635
% Passenger Vehicles	98.2	99.7	100	98.6	99.8	98.4	99	100	98.4	99.1	98.8
Heavy Trucks	7	1	0	8	1	5	6	0	4	4	18
% Heavy Trucks	0.9	0.3	0	0.8	0.2	0.7	0.5	0	1.6	0.9	0.7
Buses	7	0	0	7	0	6	6	0	0	0	13
% Buses	0.9	0	0	0.7	0	0.9	0.5	0	0	0	0.5

	Palm Avenue Southbound				Palm Avenue Northbound			Costco Driveway 1 Eastbound			
Start Time	Thru	Right	Uturn	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 04:45 PM											
04:45 PM	93	34	0	127	66	102	**168**	22	**43**	**65**	**360**
05:00 PM	**96**	32	1	129	59	**107**	166	**30**	30	60	355
05:15 PM	93	31	**2**	126	48	86	134	18	31	49	309
05:30 PM	96	**45**	0	**141**	**74**	85	159	18	36	54	354
Total Volume	378	142	3	523	247	380	627	88	140	228	1378
% App. Total	72.3	27.2	0.6		39.4	60.6		38.6	61.4		
PHF	.984	.789	.375	.927	.834	.888	.933	.733	.814	.877	.957

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City of Alhambra
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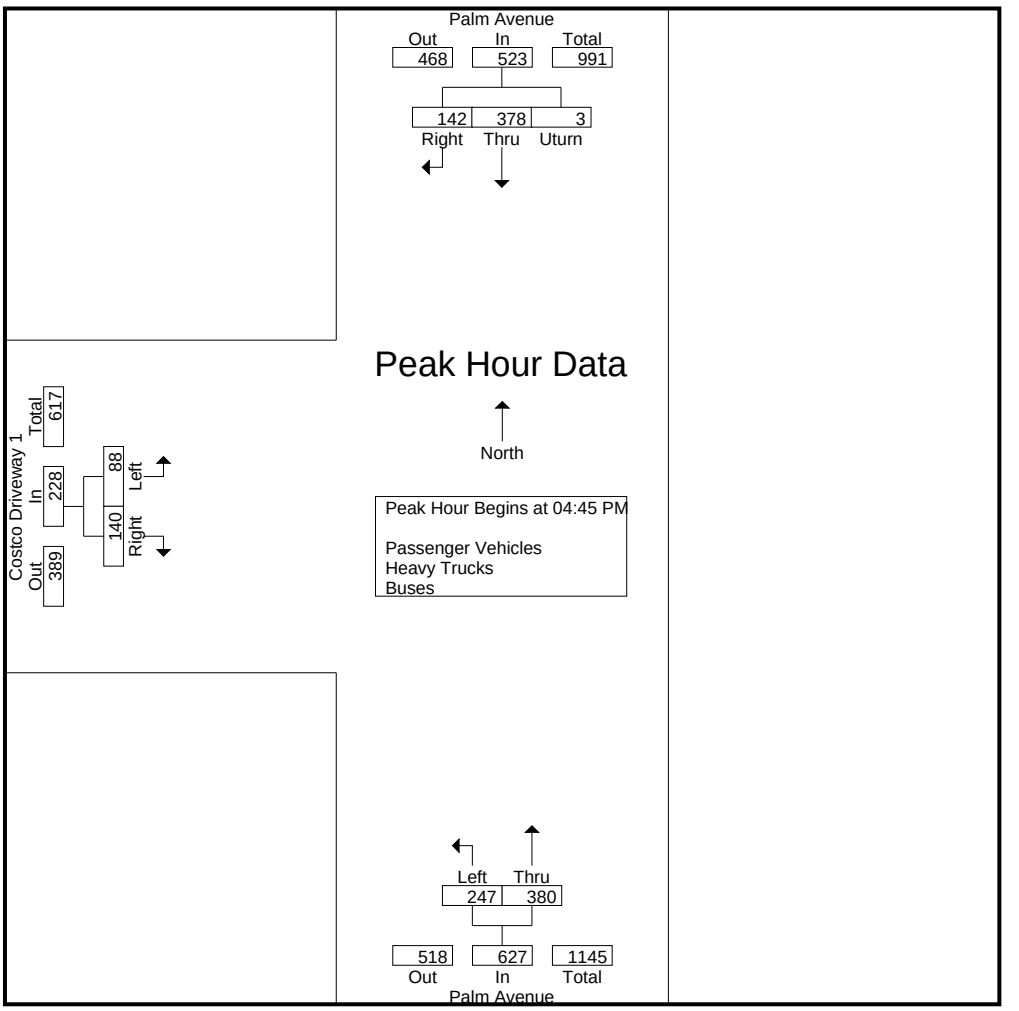
E/W: Costco Driveway 1
Weather: Clear

File Name : 05_AHB_Palm_Costco Dwy 1_PM
Site Code : 04122411
Start Date : 5/5/2022



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:45 PM			04:15 PM		
+0 mins.	96	32	1	129	66	102	**168**	28	28	56
+15 mins.	93	31	2	126	59	**107**	166	21	28	49
+30 mins.	96	**45**	0	**141**	48	86	134	22	**43**	**65**
+45 mins.	**112**	23	**3**	138	**74**	85	159	**30**	30	60
Total Volume	397	131	6	534	247	380	627	101	129	230
% App. Total	74.3	24.5	1.1		39.4	60.6		43.9	56.1	
PHF	.886	.728	.500	.947	.834	.888	.933	.842	.750	.885

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City of Alhambra
N/S: Palm Avenue
E/W: Costco Driveway 1
Weather: Clear

File Name : 05_AHB_Palm_Costco Dwy 1_PM
Site Code : 04122411
Start Date : 5/5/2022
Page No : 1

Groups Printed- Passenger Vehicles

	Palm Avenue Southbound				Palm Avenue Northbound			Costco Driveway 1 Eastbound			
Start Time	Thru	Right	Uturn	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	82	41	1	124	65	73	138	23	28	51	313
04:15 PM	93	44	1	138	60	74	134	28	28	56	328
04:30 PM	99	37	0	136	65	60	125	21	28	49	310
04:45 PM	92	34	0	126	66	100	166	22	43	65	357
Total	366	156	2	524	256	307	563	94	127	221	1308
05:00 PM	95	32	1	128	58	107	165	30	28	58	351
05:15 PM	91	31	2	124	48	84	132	18	31	49	305
05:30 PM	93	45	0	138	74	85	159	18	35	53	350
05:45 PM	109	23	3	135	48	91	139	15	32	47	321
Total	388	131	6	525	228	367	595	81	126	207	1327
Grand Total	754	287	8	1049	484	674	1158	175	253	428	2635
Apprch %	71.9	27.4	0.8		41.8	58.2		40.9	59.1		
Total %	28.6	10.9	0.3	39.8	18.4	25.6	43.9	6.6	9.6	16.2	

	Palm Avenue Southbound				Palm Avenue Northbound			Costco Driveway 1 Eastbound			
Start Time	Thru	Right	Uturn	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 04:45 PM											
04:45 PM	92	34	0	126	66	100	**166**	22	**43**	**65**	**357**
05:00 PM	**95**	32	1	128	58	**107**	165	**30**	28	58	351
05:15 PM	91	31	**2**	124	48	84	132	18	31	49	305
05:30 PM	93	**45**	0	**138**	**74**	85	159	18	35	53	350
Total Volume	371	142	3	516	246	376	622	88	137	225	1363
% App. Total	71.9	27.5	0.6		39.5	60.5		39.1	60.9		
PHF	.976	.789	.375	.935	.831	.879	.937	.733	.797	.865	.954

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City of Alhambra
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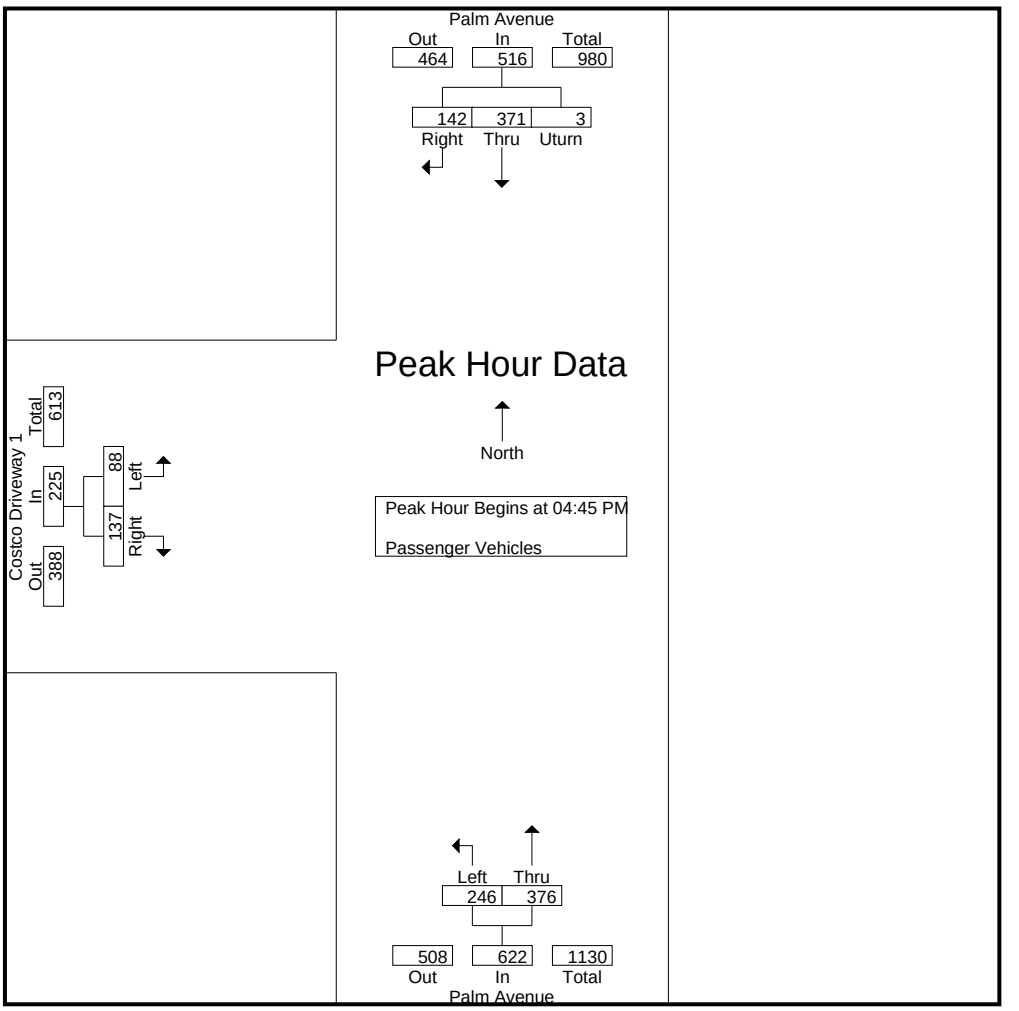
E/W: Costco Driveway 1
Weather: Clear

File Name : 05_AHB_Palm_Costco Dwy 1_PM
Site Code : 04122411
Start Date : 5/5/2022



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM			04:45 PM		
+0 mins.	92	34	0	126	66	100	**166**	22	**43**	**65**
+15 mins.	**95**	32	1	128	58	**107**	165	**30**	28	58
+30 mins.	91	31	**2**	124	48	84	132	18	31	49
+45 mins.	93	**45**	0	**138**	**74**	85	159	18	35	53
Total Volume	371	142	3	516	246	376	622	88	137	225
% App. Total	71.9	27.5	0.6		39.5	60.5		39.1	60.9	
PHF	.976	.789	.375	.935	.831	.879	.937	.733	.797	.865

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City of Alhambra
N/S: Palm Avenue
E/W: Costco Driveway 1
Weather: Clear

File Name : 05_AHB_Palm_Costco Dwy 1_PM
Site Code : 04122411
Start Date : 5/5/2022

Groups Printed- Heavy Trucks

	Palm Avenue Southbound				Palm Avenue Northbound			Costco Driveway 1 Eastbound			
Start Time	Thru	Right	Uturn	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	1	0	0	1	0	0	0	0	1	1	2
04:15 PM	0	0	0	0	0	2	2	0	0	0	2
04:30 PM	0	1	0	1	0	1	1	0	0	0	2
04:45 PM	0	0	0	0	0	1	1	0	0	0	1
Total	1	1	0	2	0	4	4	0	1	1	7
05:00 PM	1	0	0	1	1	0	1	0	2	2	4
05:15 PM	1	0	0	1	0	0	0	0	0	0	1
05:30 PM	2	0	0	2	0	0	0	0	1	1	3
05:45 PM	2	0	0	2	0	1	1	0	0	0	3
Total	6	0	0	6	1	1	2	0	3	3	11
Grand Total	7	1	0	8	1	5	6	0	4	4	18
Apprch %	87.5	12.5	0		16.7	83.3		0	100		
Total %	38.9	5.6	0	44.4	5.6	27.8	33.3	0	22.2	22.2	

	Palm Avenue Southbound				Palm Avenue Northbound			Costco Driveway 1 Eastbound			
Start Time	Thru	Right	Uturn	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 04:45 PM											
04:45 PM	0	0	0	0	0	**1**	**1**	0	0	0	1
05:00 PM	1	0	0	1	**1**	0	1	0	**2**	**2**	**4**
05:15 PM	1	0	0	1	0	0	0	0	0	0	1
05:30 PM	**2**	0	0	**2**	0	0	0	0	1	1	3
Total Volume	4	0	0	4	1	1	2	0	3	3	9
% App. Total	100	0	0		50	50		0	100		
PHF	.500	.000	.000	.500	.250	.250	.500	.000	.375	.375	.563

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City of Alhambra
N/S: Palm Avenue
E/W: Costco Driveway 1
Weather: Clear

File Name : 05_AHB_Palm_Costco Dwy 1_PM
Site Code : 04122411
Start Date : 5/5/2022
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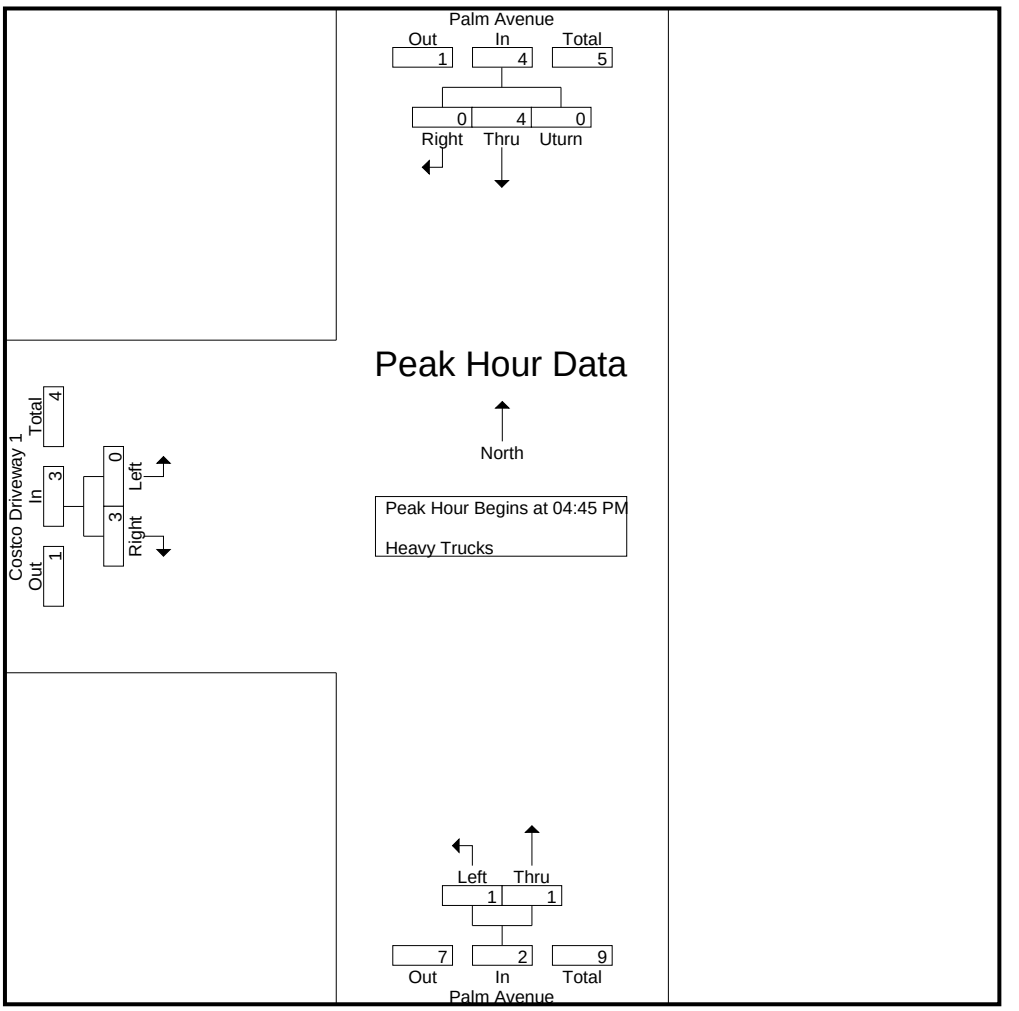

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM			04:45 PM		
+0 mins.	0	0	0	0	0	**1**	**1**	0	0	0
+15 mins.	1	0	0	1	**1**	0	1	0	**2**	**2**
+30 mins.	1	0	0	1	0	0	0	0	0	0
+45 mins.	**2**	0	0	**2**	0	0	0	0	1	1
Total Volume	4	0	0	4	1	1	2	0	3	3
% App. Total	100	0	0		50	50		0	100	
PHF	.500	.000	.000	.500	.250	.250	.500	.000	.375	.375

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City of Alhambra
N/S: Palm Avenue
E/W: Costco Driveway 1
Weather: Clear

File Name : 05_AHB_Palm_Costco Dwy 1_PM
Site Code : 04122411
Start Date : 5/5/2022
Page No : 1

Groups Printed- Buses

	Palm Avenue Southbound				Palm Avenue Northbound			Costco Driveway 1 Eastbound			
Start Time	Thru	Right	Uturn	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	2	0	0	2	0	1	1	0	0	0	3
04:15 PM	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	1	0	0	1	0	1	1	0	0	0	2
04:45 PM	1	0	0	1	0	1	1	0	0	0	2
Total	4	0	0	4	0	3	3	0	0	0	7
05:00 PM	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	1	0	0	1	0	2	2	0	0	0	3
05:30 PM	1	0	0	1	0	0	0	0	0	0	1
05:45 PM	1	0	0	1	0	1	1	0	0	0	2
Total	3	0	0	3	0	3	3	0	0	0	6
Grand Total	7	0	0	7	0	6	6	0	0	0	13
Apprch %	100	0	0		0	100		0	0		
Total %	53.8	0	0	53.8	0	46.2	46.2	0	0	0	

	Palm Avenue Southbound				Palm Avenue Northbound			Costco Driveway 1 Eastbound			
Start Time	Thru	Right	Uturn	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 04:45 PM											
04:45 PM	**1**	0	0	**1**	0	1	1	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	1	0	0	1	0	**2**	**2**	0	0	0	**3**
05:30 PM	1	0	0	1	0	0	0	0	0	0	1
Total Volume	3	0	0	3	0	3	3	0	0	0	6
% App. Total	100	0	0		0	100		0	0		
PHF	.750	.000	.000	.750	.000	.375	.375	.000	.000	.000	.500

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City of Alhambra
N/S: Palm Avenue
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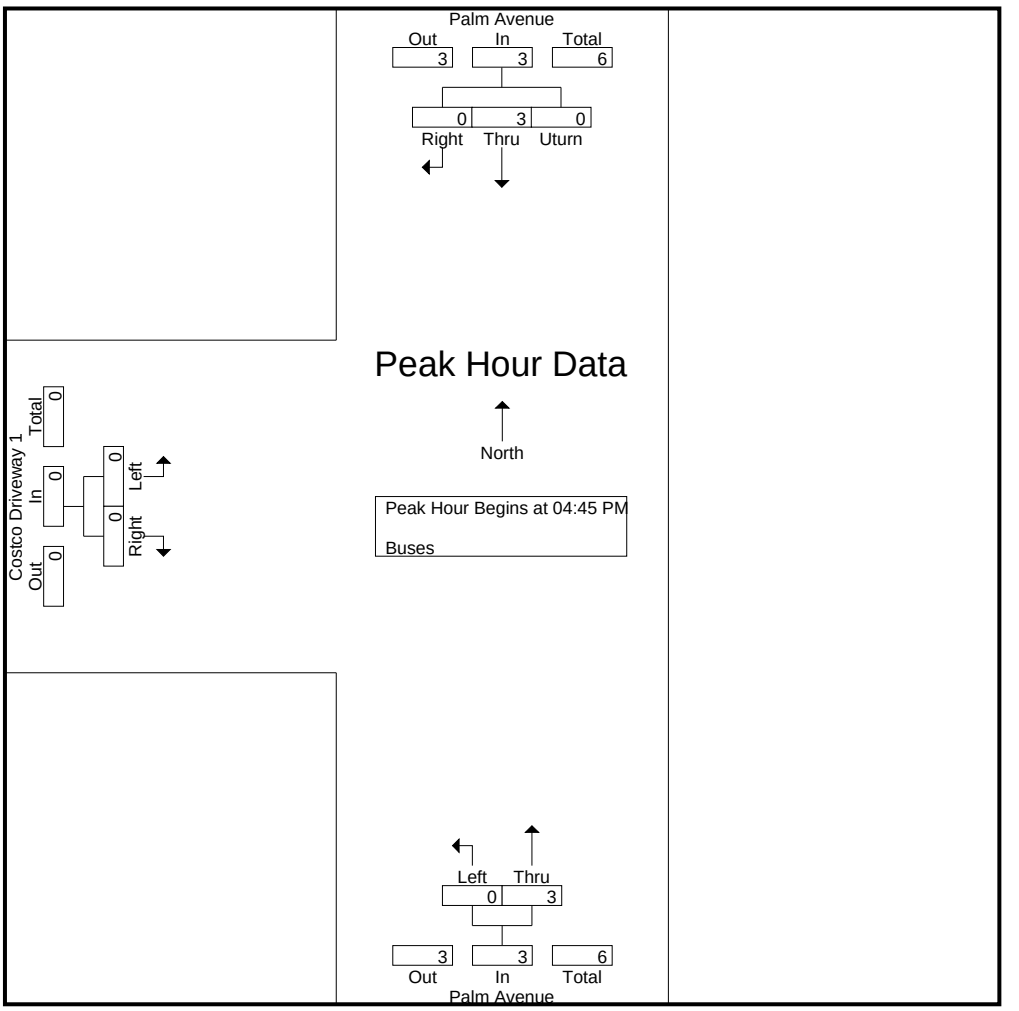
Weather: Clear

File Name : 05_AHB_Palm_Costco Dwy 1_PM
Site Code : 04122411
Start Date : 5/5/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM			04:45 PM		
+0 mins.	**1**	0	0	**1**	0	1	1	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0
+30 mins.	1	0	0	1	0	**2**	**2**	0	0	0
+45 mins.	1	0	0	1	0	0	0	0	0	0
Total Volume	3	0	0	3	0	3	3	0	0	0
% App. Total	100	0	0		0	100		0	0	
PHF	.750	.000	.000	.750	.000	.375	.375	.000	.000	.000

Location: Alhambra
N/S: Palm Avenue
E/W: Costco Dwy 1

Date: 5/5/2022
Day: Thursday

PEDESTRIANS

	North Leg Palm Avenue	East Leg Costco Dwy 1	South Leg Palm Avenue	West Leg Costco Dwy 1	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	1	1
4:30 PM	0	0	0	1	1
4:45 PM	0	0	0	2	2
5:00 PM	0	0	0	1	1
5:15 PM	0	0	0	2	2
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	7	7

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Location: Alhambra
N/S: Palm Avenue
E/W: Costco Dwy 1

Date: 5/5/2022
Day: Thursday

BICYCLES

	Southbound Palm Avenue			Westbound Costco Dwy 1			Northbound Palm Avenue			Eastbound Costco Dwy 1			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	1	0	0	0	0	0	2	0	0	0	0	3
4:15 PM	0	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	0
4:45 PM	0	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	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
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	0	0	0	0	0	0
TOTAL VOLUMES:	0	2	0	0	0	0	0	3	0	0	0	0	5

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City of Alhambra
N/S: Palm Avenue
E/W: Pepper Street
Weather: Clear

File Name : 04_AHB_Palm_Pepper_PM
Site Code : 04122411
Start Date : 5/5/2022

Groups Printed- Passenger Vehicles - Heavy Trucks - Buses

	Palm Avenue Southbound			Pepper Street Westbound			Palm Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	114	114	0	3	3	137	2	139	256
04:15 PM	0	123	123	0	1	1	137	0	137	261
04:30 PM	0	129	129	0	3	3	126	1	127	259
04:45 PM	0	134	134	0	5	5	161	1	162	301
Total	0	500	500	0	12	12	561	4	565	1077
05:00 PM	0	127	127	0	1	1	165	0	165	293
05:15 PM	0	127	127	0	1	1	138	0	138	266
05:30 PM	0	128	128	0	4	4	156	3	159	291
05:45 PM	0	149	149	0	1	1	143	1	144	294
Total	0	531	531	0	7	7	602	4	606	1144
Grand Total	0	1031	1031	0	19	19	1163	8	1171	2221
Apprch %	0	100		0	100		99.3	0.7		
Total %	0	46.4	46.4	0	0.9	0.9	52.4	0.4	52.7	
Passenger Vehicles	0	1013	1013	0	19	19	1152	8	1160	2192
% Passenger Vehicles	0	98.3	98.3	0	100	100	99.1	100	99.1	98.7
Heavy Trucks	0	11	11	0	0	0	5	0	5	16
% Heavy Trucks	0	1.1	1.1	0	0	0	0.4	0	0.4	0.7
Buses	0	7	7	0	0	0	6	0	6	13
% Buses	0	0.7	0.7	0	0	0	0.5	0	0.5	0.6

	Palm Avenue Southbound			Pepper Street Westbound			Palm Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	**134**	**134**	0	**5**	**5**	161	1	162	**301**
05:00 PM	0	127	127	0	1	1	**165**	0	**165**	293
05:15 PM	0	127	127	0	1	1	138	0	138	266
05:30 PM	0	128	128	0	4	4	156	**3**	159	291
Total Volume	0	516	516	0	11	11	620	4	624	1151
% App. Total	0	100		0	100		99.4	0.6		
PHF	.000	.963	.963	.000	.550	.550	.939	.333	.945	.956

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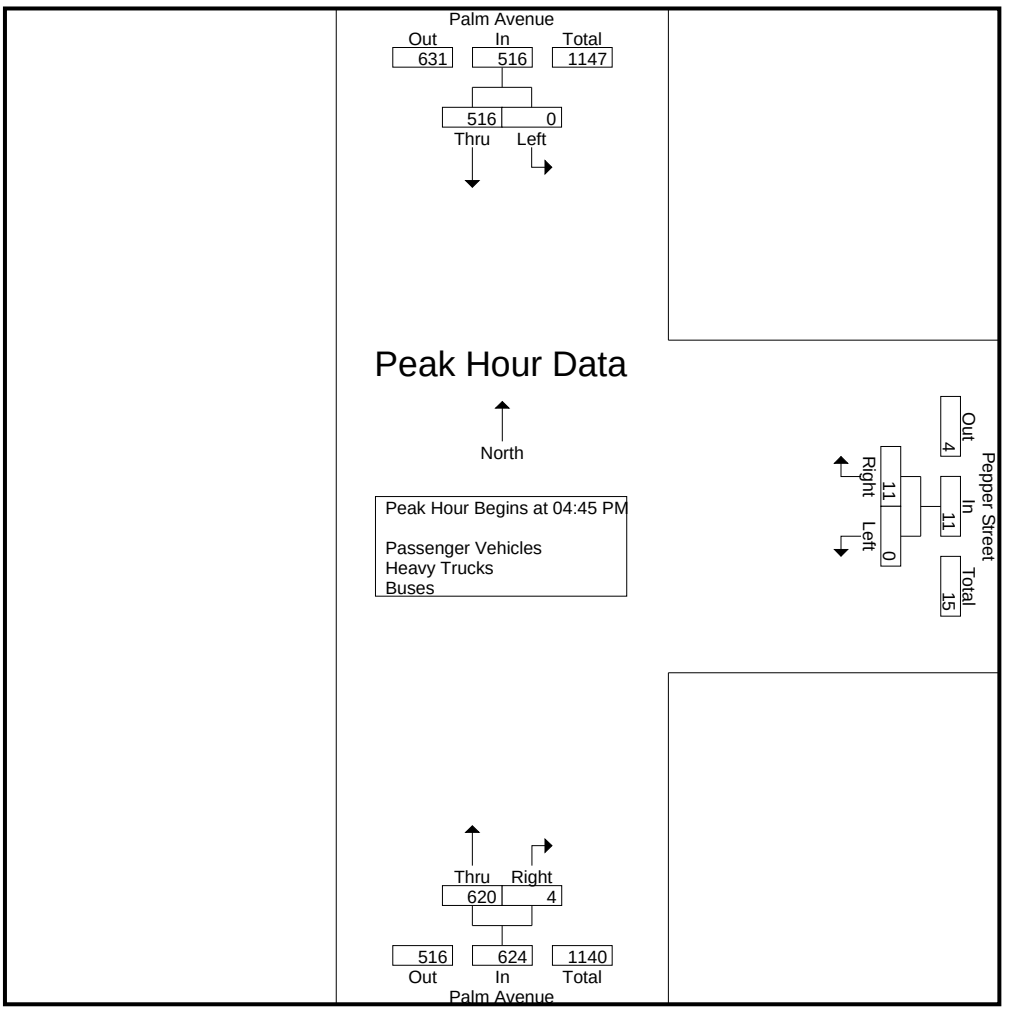
Start Date : 5/5/2022



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			04:00 PM			04:45 PM		
+0 mins.	0	127	127	0	3	3	161	1	162
+15 mins.	0	127	127	0	1	1	**165**	0	**165**
+30 mins.	0	128	128	0	3	3	138	0	138
+45 mins.	0	**149**	**149**	0	**5**	**5**	156	**3**	159
Total Volume	0	531	531	0	12	12	620	4	624
% App. Total	0	100		0	100		99.4	0.6	
PHF	.000	.891	.891	.000	.600	.600	.939	.333	.945

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File Name : 04_AHB_Palm_Pepper_PM
Site Code : 04122411
Start Date : 5/5/2022
Page No : 1

Groups Printed- Passenger Vehicles

	Palm Avenue Southbound			Pepper Street Westbound			Palm Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	111	111	0	3	3	136	2	138	252
04:15 PM	0	122	122	0	1	1	135	0	135	258
04:30 PM	0	128	128	0	3	3	124	1	125	256
04:45 PM	0	133	133	0	5	5	159	1	160	298
Total	0	494	494	0	12	12	554	4	558	1064
05:00 PM	0	124	124	0	1	1	164	0	164	289
05:15 PM	0	125	125	0	1	1	136	0	136	262
05:30 PM	0	124	124	0	4	4	156	3	159	287
05:45 PM	0	146	146	0	1	1	142	1	143	290
Total	0	519	519	0	7	7	598	4	602	1128
Grand Total	0	1013	1013	0	19	19	1152	8	1160	2192
Apprch %	0	100		0	100		99.3	0.7		
Total %	0	46.2	46.2	0	0.9	0.9	52.6	0.4	52.9	

	Palm Avenue Southbound			Pepper Street Westbound			Palm Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	**133**	**133**	0	**5**	**5**	159	1	160	**298**
05:00 PM	0	124	124	0	1	1	**164**	0	**164**	289
05:15 PM	0	125	125	0	1	1	136	0	136	262
05:30 PM	0	124	124	0	4	4	156	**3**	159	287
Total Volume	0	506	506	0	11	11	615	4	619	1136
% App. Total	0	100		0	100		99.4	0.6		
PHF	.000	.951	.951	.000	.550	.550	.938	.333	.944	.953

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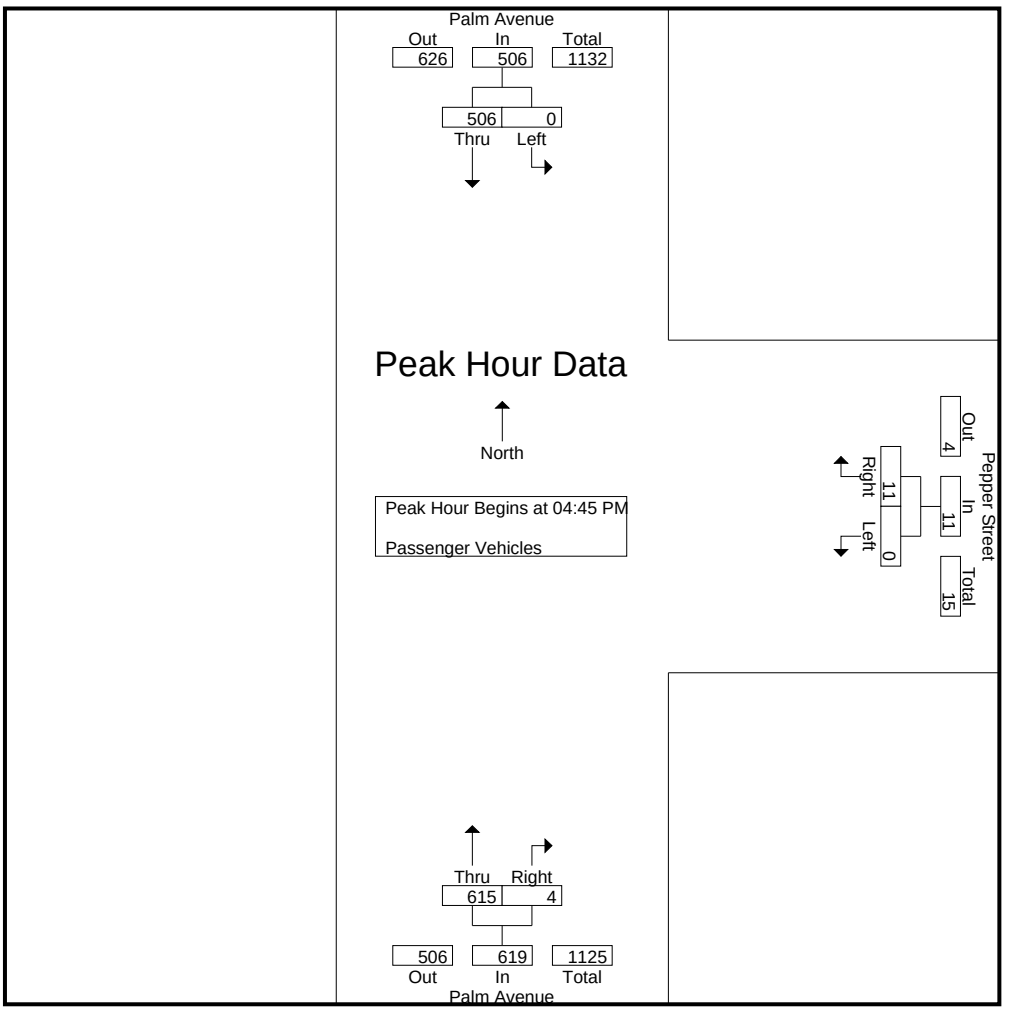

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	**133**	**133**	0	**5**	**5**	159	1	160
+15 mins.	0	124	124	0	1	1	**164**	0	**164**
+30 mins.	0	125	125	0	1	1	136	0	136
+45 mins.	0	124	124	0	4	4	156	**3**	159
Total Volume	0	506	506	0	11	11	615	4	619
% App. Total	0	100		0	100		99.4	0.6	
PHF	.000	.951	.951	.000	.550	.550	.938	.333	.944

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Weather: Clear

File Name : 04_AHB_Palm_Pepper_PM
Site Code : 04122411
Start Date : 5/5/2022

Groups Printed- Heavy Trucks

	Palm Avenue Southbound			Pepper Street Westbound			Palm Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	1	0	0	0	0	0	0	1
04:15 PM	0	1	1	0	0	0	2	0	2	3
04:30 PM	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	0	0	0	0	0	1	0	1	1
Total	0	2	2	0	0	0	4	0	4	6
05:00 PM	0	3	3	0	0	0	1	0	1	4
05:15 PM	0	1	1	0	0	0	0	0	0	1
05:30 PM	0	3	3	0	0	0	0	0	0	3
05:45 PM	0	2	2	0	0	0	0	0	0	2
Total	0	9	9	0	0	0	1	0	1	10
Grand Total	0	11	11	0	0	0	5	0	5	16
Apprch %	0	100		0	0		100	0		
Total %	0	68.8	68.8	0	0	0	31.2	0	31.2	

	Palm Avenue Southbound			Pepper Street Westbound			Palm Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	0	0	0	0	0	**1**	0	**1**	1
05:00 PM	0	**3**	**3**	0	0	0	1	0	1	**4**
05:15 PM	0	1	1	0	0	0	0	0	0	1
05:30 PM	0	3	3	0	0	0	0	0	0	3
Total Volume	0	7	7	0	0	0	2	0	2	9
% App. Total	0	100		0	0		100	0		
PHF	.000	.583	.583	.000	.000	.000	.500	.000	.500	.563

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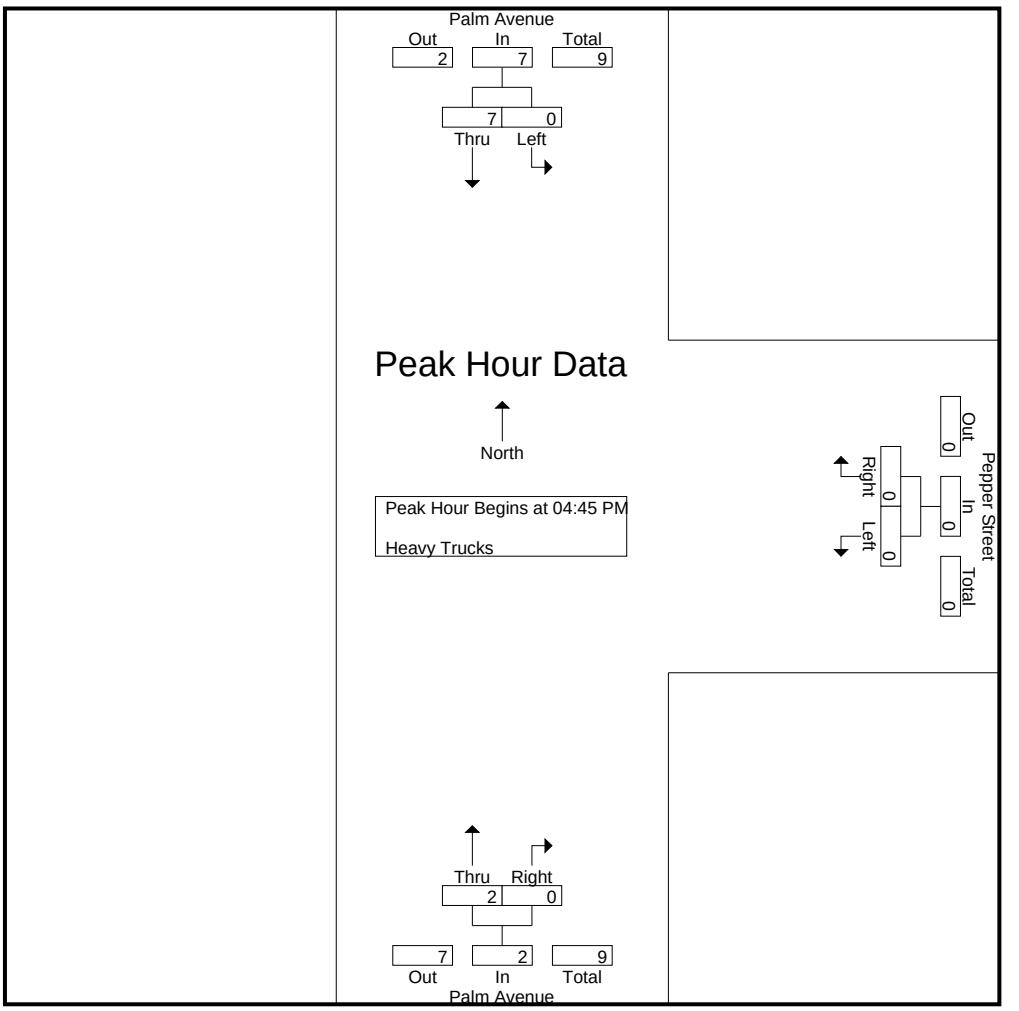

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	0	0	0	0	0	**1**	0	**1**
+15 mins.	0	**3**	**3**	0	0	0	1	0	1
+30 mins.	0	1	1	0	0	0	0	0	0
+45 mins.	0	3	3	0	0	0	0	0	0
Total Volume	0	7	7	0	0	0	2	0	2
% App. Total	0	100		0	0		100	0	
PHF	.000	.583	.583	.000	.000	.000	.500	.000	.500

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N/S: Palm Avenue
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File Name : 04_AHB_Palm_Pepper_PM
Site Code : 04122411
Start Date : 5/5/2022

Groups Printed- Buses

	Palm Avenue Southbound				Pepper Street Westbound				Palm Avenue Northbound				Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
04:45 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Total	0	4	0	4	0	0	0	0	0	3	0	3	0	0	0	0	7
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3
05:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Total	0	3	0	3	0	0	0	0	0	3	0	3	0	0	0	0	6
Grand Total	0	7	0	7	0	0	0	0	0	6	0	6	0	0	0	0	13
Apprch %	0	100	0		0	0	0		0	100	0		0	0	0		
Total %	0	53.8	0	53.8	0	0	0	0	0	46.2	0	46.2	0	0	0	0	

	Palm Avenue Southbound				Pepper Street Westbound				Palm Avenue Northbound				Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	**1**	0	**1**	0	0	0	0	0	1	0	1	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	0	1	0	0	0	0	0	**2**	0	**2**	0	0	0	0	**3**
05:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	3	0	3	0	0	0	0	0	3	0	3	0	0	0	0	6
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.750	.000	.750	.000	.000	.000	.000	.000	.375	.000	.375	.000	.000	.000	.000	.500

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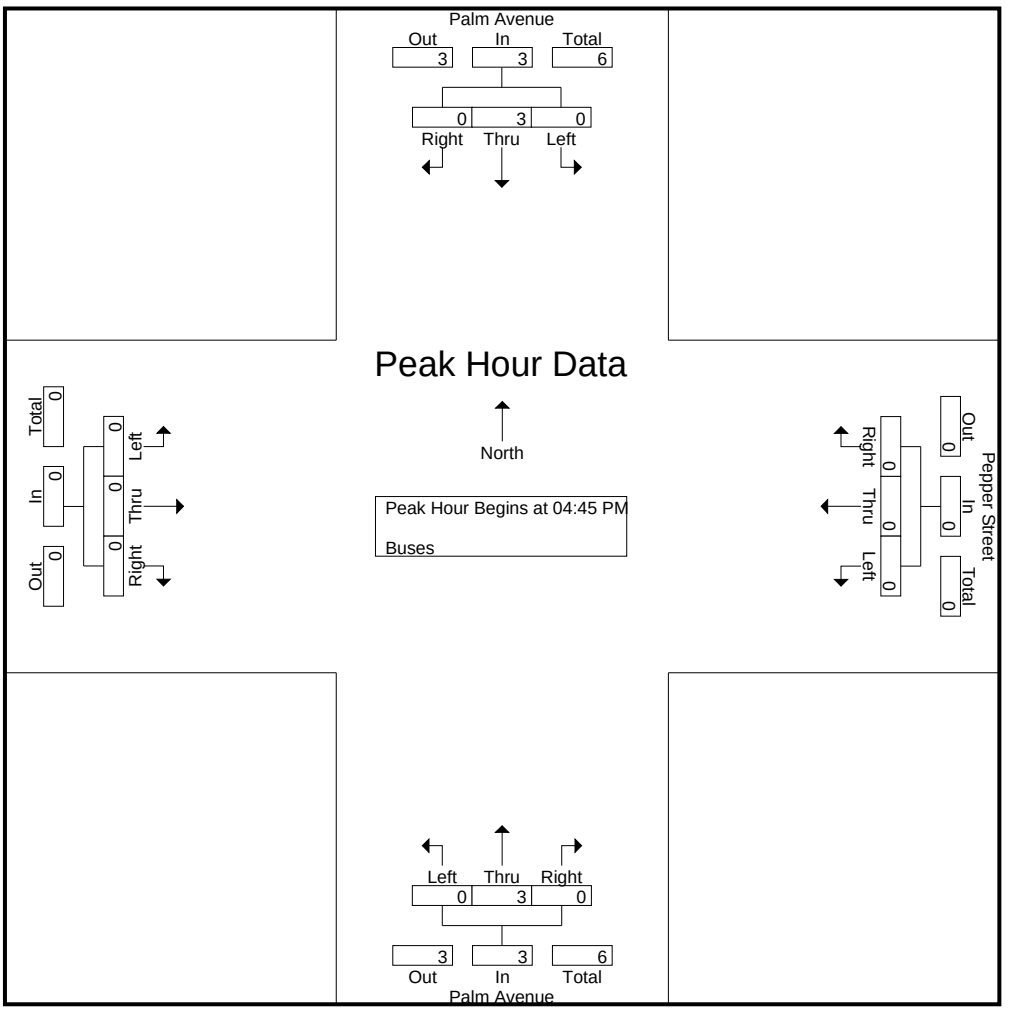

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	**1**	0	**1**	0	0	0	0	0	1	0	1	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	**2**	0	**2**	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	3	0	3	0	0	0	0	0	3	0	3	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.750	.000	.750	.000	.000	.000	.000	.000	.375	.000	.375	.000	.000	.000	.000

Location: Alhambra
N/S: Palm Avenue
E/W: Pepper Street

Date: 5/5/2022
Day: Thursday

PEDESTRIANS

	North Leg Palm Avenue	East Leg Pepper Street	South Leg Palm Avenue	West Leg Pepper Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	2	0	0	2
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	1	0	0	1
5:30 PM	0	1	0	0	1
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	4	0	0	4

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Location: Alhambra
N/S: Palm Avenue
E/W: Pepper Street

Date: 5/5/2022
Day: Thursday

BICYCLES

	Southbound Palm Avenue			Westbound Pepper Street			Northbound Palm Avenue			Eastbound Pepper Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	1	0	0	0	0	0	2	0	0	0	0	3
4:15 PM	0	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	0
4:45 PM	0	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	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	0	0	0	3	0	0	0	0	4

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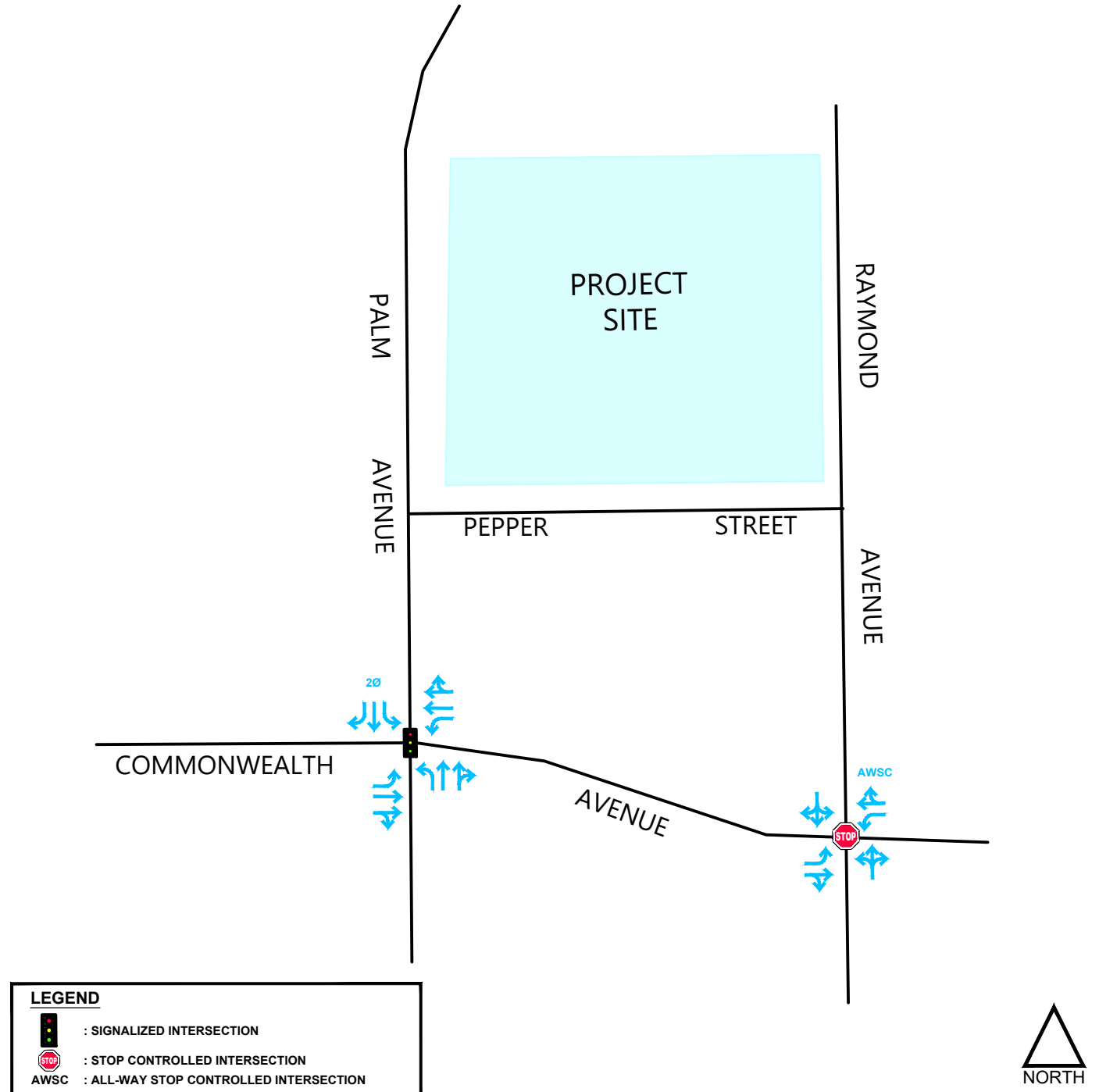
APPENDIX C

STUDY INTERSECTION GEOMETRICS AND TRAFFIC CONTROL CONDITIONS



APPENDIX C

10/24/2022

J:\2022\JC28074 CFTPlazaAlhambraPalmAve&PepperSt\Graphics\LANE-CONFIG

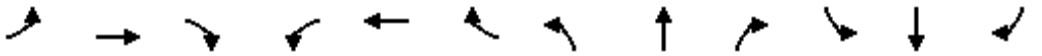
STUDY INTERSECTION GEOMETRICS
AND TRAFFIC CONTROL CONDITIONS

KOA
300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.koacorp.com

APPENDIX D

SYNCHRO DELAY AND SIMTRAFFIC QUEUING CALCULATION WORKSHEETS

EXISTING (2022) TRAFFIC CONDITIONS
WEEKDAY AM PEAK HOUR



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	181	264	13	10	221	78	17	54	13	43	106	193
Future Volume (vph)	181	264	13	10	221	78	17	54	13	43	106	193
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	12	10	12	12	14	16	12	10	12	12
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.96		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1649	3547		1527	3420		1923	3682		1678	1810	1547
Flt Permitted	0.54	1.00		0.55	1.00		0.68	1.00		0.70	1.00	1.00
Satd. Flow (perm)	931	3547		891	3420		1374	3682		1242	1810	1547
Peak-hour factor, PHF	0.85	0.85	0.85	0.83	0.83	0.83	0.84	0.84	0.84	0.87	0.87	0.87
Adj. Flow (vph)	213	311	15	12	266	94	20	64	15	49	122	222
RTOR Reduction (vph)	0	6	0	0	52	0	0	9	0	0	0	133
Lane Group Flow (vph)	213	320	0	12	308	0	20	70	0	49	122	89
Confl. Peds. (#/hr)	4		4	4		4	2		6	6		2
Confl. Bikes (#/hr)			1			1						
Heavy Vehicles (%)	2%	1%	0%	10%	1%	1%	0%	4%	23%	0%	5%	3%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		4
Actuated Green, G (s)	26.9	26.9		26.9	26.9		24.1	24.1		24.1	24.1	24.1
Effective Green, g (s)	26.9	26.9		26.9	26.9		24.1	24.1		24.1	24.1	24.1
Actuated g/C Ratio	0.45	0.45		0.45	0.45		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Grp Cap (vph)	417	1590		399	1533		551	1478		498	727	621
v/s Ratio Prot		0.09			0.09			0.02			c0.07	
v/s Ratio Perm	c0.23			0.01			0.01			0.04		0.06
v/c Ratio	0.51	0.20		0.03	0.20		0.04	0.05		0.10	0.17	0.14
Uniform Delay, d1	11.8	10.0		9.3	10.0		10.9	10.9		11.2	11.5	11.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	4.4	0.3		0.1	0.3		0.1	0.1		0.4	0.5	0.5
Delay (s)	16.3	10.3		9.4	10.3		11.0	11.0		11.6	12.0	11.9
Level of Service	B	B		A	B		B	B		B	B	B
Approach Delay (s)		12.7			10.3			11.0			11.9	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	61.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

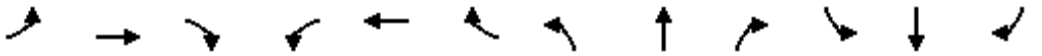
Intersection	
Intersection Delay, s/veh	14.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	40	256	21	20	281	47	14	80	13	27	65	18
Future Vol, veh/h	40	256	21	20	281	47	14	80	13	27	65	18
Peak Hour Factor	0.84	0.84	0.84	0.89	0.89	0.89	0.89	0.89	0.89	0.67	0.67	0.67
Heavy Vehicles, %	3	2	5	0	1	2	0	1	0	0	3	0
Mvmt Flow	48	305	25	22	316	53	16	90	15	40	97	27
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	14.9	16.7	11.1	11.7
HCM LOS	B	C	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	13%	100%	0%	100%	0%	25%
Vol Thru, %	75%	0%	92%	0%	86%	59%
Vol Right, %	12%	0%	8%	0%	14%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	107	40	277	20	328	110
LT Vol	14	40	0	20	0	27
Through Vol	80	0	256	0	281	65
RT Vol	13	0	21	0	47	18
Lane Flow Rate	120	48	330	22	369	164
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.211	0.086	0.544	0.04	0.6	0.283
Departure Headway (Hd)	6.329	6.515	5.936	6.453	5.861	6.208
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	563	548	607	553	615	575
Service Time	4.413	4.276	3.696	4.211	3.618	4.287
HCM Lane V/C Ratio	0.213	0.088	0.544	0.04	0.6	0.285
HCM Control Delay	11.1	9.9	15.6	9.5	17.1	11.7
HCM Lane LOS	B	A	C	A	C	B
HCM 95th-tile Q	0.8	0.3	3.3	0.1	4	1.2

EXISTING (2022) TRAFFIC CONDITIONS
WEEKDAY PM PEAK HOUR



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	225	336	33	6	350	99	43	157	18	153	161	209
Future Volume (vph)	225	336	33	6	350	99	43	157	18	153	161	209
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	12	10	12	12	14	16	12	10	12	12
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		0.99	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.97		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1662	3552		1675	3442		1917	3985		1681	1827	1556
Flt Permitted	0.43	1.00		0.52	1.00		0.65	1.00		0.60	1.00	1.00
Satd. Flow (perm)	753	3552		918	3442		1312	3985		1066	1827	1556
Peak-hour factor, PHF	0.94	0.94	0.94	0.85	0.85	0.85	0.73	0.73	0.73	0.95	0.95	0.95
Adj. Flow (vph)	239	357	35	7	412	116	59	215	25	161	169	220
RTOR Reduction (vph)	0	12	0	0	43	0	0	15	0	0	0	132
Lane Group Flow (vph)	239	380	0	7	485	0	59	225	0	161	169	88
Confl. Peds. (#/hr)	10		8	8		10	7		4	4		7
Confl. Bikes (#/hr)			1						1			
Heavy Vehicles (%)	1%	0%	0%	0%	1%	1%	0%	1%	0%	0%	4%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		4
Actuated Green, G (s)	27.0	27.0		27.0	27.0		24.0	24.0		24.0	24.0	24.0
Effective Green, g (s)	27.0	27.0		27.0	27.0		24.0	24.0		24.0	24.0	24.0
Actuated g/C Ratio	0.45	0.45		0.45	0.45		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Grp Cap (vph)	338	1598		413	1548		524	1594		426	730	622
v/s Ratio Prot		0.11			0.14			0.06			0.09	
v/s Ratio Perm	c0.32			0.01			0.04			c0.15		0.06
v/c Ratio	0.71	0.24		0.02	0.31		0.11	0.14		0.38	0.23	0.14
Uniform Delay, d1	13.3	10.2		9.1	10.6		11.3	11.4		12.7	11.9	11.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	11.8	0.4		0.1	0.5		0.4	0.2		2.5	0.7	0.5
Delay (s)	25.1	10.5		9.2	11.1		11.7	11.6		15.3	12.6	11.9
Level of Service	C	B		A	B		B	B		B	B	B
Approach Delay (s)		16.0			11.1			11.7			13.1	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	13.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	75.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

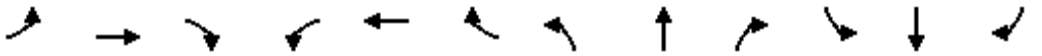
Intersection	
Intersection Delay, s/veh	51.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	70	418	22	22	386	40	27	95	31	47	80	28
Future Vol, veh/h	70	418	22	22	386	40	27	95	31	47	80	28
Peak Hour Factor	0.88	0.88	0.88	0.81	0.81	0.81	0.87	0.87	0.87	0.88	0.88	0.88
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	2	0	0
Mvmt Flow	80	475	25	27	477	49	31	109	36	53	91	32
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	53.6	72.8	16.1	16.3
HCM LOS	F	F	C	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	18%	100%	0%	100%	0%	30%
Vol Thru, %	62%	0%	95%	0%	91%	52%
Vol Right, %	20%	0%	5%	0%	9%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	153	70	440	22	426	155
LT Vol	27	70	0	22	0	47
Through Vol	95	0	418	0	386	80
RT Vol	31	0	22	0	40	28
Lane Flow Rate	176	80	500	27	526	176
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.388	0.167	0.974	0.058	1.036	0.392
Departure Headway (Hd)	8.102	7.666	7.133	7.658	7.094	8.167
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	447	471	510	470	515	444
Service Time	6.102	5.366	4.833	5.358	4.794	6.167
HCM Lane V/C Ratio	0.394	0.17	0.98	0.057	1.021	0.396
HCM Control Delay	16.1	11.9	60.2	10.8	76	16.3
HCM Lane LOS	C	B	F	B	F	C
HCM 95th-tile Q	1.8	0.6	12.8	0.2	15.2	1.8

FUTURE (2024) WITHOUT PROJECT TRAFFIC CONDITIONS
WEEKDAY AM PEAK HOUR



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	185	273	13	10	230	80	17	60	13	44	114	197
Future Volume (vph)	185	273	13	10	230	80	17	60	13	44	114	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	12	10	12	12	14	16	12	10	12	12
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.96		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1649	3548		1527	3423		1923	3702		1678	1810	1547
Flt Permitted	0.53	1.00		0.55	1.00		0.67	1.00		0.70	1.00	1.00
Satd. Flow (perm)	920	3548		883	3423		1363	3702		1233	1810	1547
Peak-hour factor, PHF	0.85	0.85	0.85	0.83	0.83	0.83	0.84	0.84	0.84	0.87	0.87	0.87
Adj. Flow (vph)	218	321	15	12	277	96	20	71	15	51	131	226
RTOR Reduction (vph)	0	6	0	0	53	0	0	9	0	0	0	135
Lane Group Flow (vph)	218	330	0	12	320	0	20	77	0	51	131	91
Confl. Peds. (#/hr)	4		4	4		4	2		6	6		2
Confl. Bikes (#/hr)			1			1						
Heavy Vehicles (%)	2%	1%	0%	10%	1%	1%	0%	4%	23%	0%	5%	3%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		4
Actuated Green, G (s)	26.9	26.9		26.9	26.9		24.1	24.1		24.1	24.1	24.1
Effective Green, g (s)	26.9	26.9		26.9	26.9		24.1	24.1		24.1	24.1	24.1
Actuated g/C Ratio	0.45	0.45		0.45	0.45		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Grp Cap (vph)	412	1590		395	1534		547	1486		495	727	621
v/s Ratio Prot		0.09			0.09			0.02			c0.07	
v/s Ratio Perm	c0.24			0.01			0.01			0.04		0.06
v/c Ratio	0.53	0.21		0.03	0.21		0.04	0.05		0.10	0.18	0.15
Uniform Delay, d1	12.0	10.1		9.3	10.1		10.9	11.0		11.2	11.6	11.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	4.8	0.3		0.1	0.3		0.1	0.1		0.4	0.5	0.5
Delay (s)	16.8	10.4		9.4	10.4		11.0	11.0		11.6	12.1	11.9
Level of Service	B	B		A	B		B	B		B	B	B
Approach Delay (s)		12.9			10.4			11.0			11.9	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	11.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	61.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

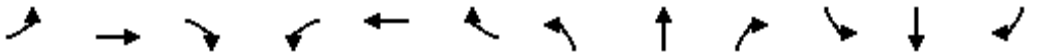
Intersection	
Intersection Delay, s/veh	15.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	41	265	21	20	292	48	14	83	13	28	67	18
Future Vol, veh/h	41	265	21	20	292	48	14	83	13	28	67	18
Peak Hour Factor	0.84	0.84	0.84	0.89	0.89	0.89	0.89	0.89	0.89	0.67	0.67	0.67
Heavy Vehicles, %	3	2	5	0	1	2	0	1	0	0	3	0
Mvmt Flow	49	315	25	22	328	54	16	93	15	42	100	27
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	15.7	17.8	11.4	12.1
HCM LOS	C	C	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	13%	100%	0%	100%	0%	25%
Vol Thru, %	75%	0%	93%	0%	86%	59%
Vol Right, %	12%	0%	7%	0%	14%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	110	41	286	20	340	113
LT Vol	14	41	0	20	0	28
Through Vol	83	0	265	0	292	67
RT Vol	13	0	21	0	48	18
Lane Flow Rate	124	49	340	22	382	169
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.221	0.089	0.568	0.041	0.629	0.296
Departure Headway (Hd)	6.435	6.586	6.008	6.519	5.928	6.309
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	552	542	596	547	607	565
Service Time	4.532	4.356	3.778	4.287	3.696	4.398
HCM Lane V/C Ratio	0.225	0.09	0.57	0.04	0.629	0.299
HCM Control Delay	11.4	10	16.5	9.6	18.3	12.1
HCM Lane LOS	B	A	C	A	C	B
HCM 95th-tile Q	0.8	0.3	3.6	0.1	4.4	1.2

FUTURE (2024) WITHOUT PROJECT TRAFFIC CONDITIONS
WEEKDAY PM PEAK HOUR



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	230	347	34	6	360	101	44	165	18	156	169	213
Future Volume (vph)	230	347	34	6	360	101	44	165	18	156	169	213
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	12	10	12	12	14	16	12	10	12	12
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.97		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1649	3521		1527	3445		1923	3803		1679	1810	1547
Flt Permitted	0.41	1.00		0.48	1.00		0.64	1.00		0.62	1.00	1.00
Satd. Flow (perm)	715	3521		778	3445		1287	3803		1089	1810	1547
Peak-hour factor, PHF	0.85	0.85	0.85	0.83	0.83	0.83	0.84	0.84	0.84	0.87	0.87	0.87
Adj. Flow (vph)	271	408	40	7	434	122	52	196	21	179	194	245
RTOR Reduction (vph)	0	12	0	0	43	0	0	13	0	0	0	147
Lane Group Flow (vph)	271	436	0	7	513	0	52	204	0	179	194	98
Confl. Peds. (#/hr)	4		4	4		4	2		6	6		2
Confl. Bikes (#/hr)			1			1						
Heavy Vehicles (%)	2%	1%	0%	10%	1%	1%	0%	4%	23%	0%	5%	3%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		4
Actuated Green, G (s)	26.9	26.9		26.9	26.9		24.1	24.1		24.1	24.1	24.1
Effective Green, g (s)	26.9	26.9		26.9	26.9		24.1	24.1		24.1	24.1	24.1
Actuated g/C Ratio	0.45	0.45		0.45	0.45		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Grp Cap (vph)	320	1578		348	1544		516	1527		437	727	621
v/s Ratio Prot		0.12			0.15			0.05			0.11	
v/s Ratio Perm	c0.38			0.01			0.04			c0.16		0.06
v/c Ratio	0.85	0.28		0.02	0.33		0.10	0.13		0.41	0.27	0.16
Uniform Delay, d1	14.7	10.4		9.2	10.7		11.2	11.4		12.9	12.0	11.5
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	23.3	0.4		0.1	0.6		0.4	0.2		2.8	0.9	0.5
Delay (s)	38.0	10.9		9.3	11.3		11.6	11.5		15.7	12.9	12.0
Level of Service	D	B		A	B		B	B		B	B	B
Approach Delay (s)		21.1			11.3			11.5			13.4	
Approach LOS		C			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	76.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

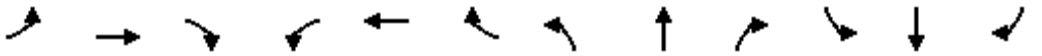
Intersection	
Intersection Delay, s/veh	63.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	71	430	22	22	397	41	28	98	32	48	83	29
Future Vol, veh/h	71	430	22	22	397	41	28	98	32	48	83	29
Peak Hour Factor	0.84	0.84	0.84	0.89	0.89	0.89	0.89	0.89	0.89	0.67	0.67	0.67
Heavy Vehicles, %	3	2	5	0	1	2	0	1	0	0	3	0
Mvmt Flow	85	512	26	25	446	46	31	110	36	72	124	43
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	90.1	68.1	17.5	20.3
HCM LOS	F	F	C	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	18%	100%	0%	100%	0%	30%
Vol Thru, %	62%	0%	95%	0%	91%	52%
Vol Right, %	20%	0%	5%	0%	9%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	158	71	452	22	438	160
LT Vol	28	71	0	22	0	48
Through Vol	98	0	430	0	397	83
RT Vol	32	0	22	0	41	29
Lane Flow Rate	178	85	538	25	492	239
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.407	0.188	1.114	0.054	1.008	0.529
Departure Headway (Hd)	8.653	8.024	7.456	8.199	7.632	8.346
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	419	447	490	440	477	435
Service Time	6.653	5.776	5.207	5.899	5.332	6.346
HCM Lane V/C Ratio	0.425	0.19	1.098	0.057	1.031	0.549
HCM Control Delay	17.5	12.6	102.3	11.4	71	20.3
HCM Lane LOS	C	B	F	B	F	C
HCM 95th-tile Q	1.9	0.7	18	0.2	13.6	3

FUTURE (2024) WITH PROJECT TRAFFIC CONDITIONS
WEEKDAY AM PEAK HOUR



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	187	273	13	10	230	80	17	62	13	44	116	199
Future Volume (vph)	187	273	13	10	230	80	17	62	13	44	116	199
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	12	10	12	12	14	16	12	10	12	12
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.96		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1649	3548		1527	3423		1923	3710		1678	1810	1547
Flt Permitted	0.53	1.00		0.55	1.00		0.67	1.00		0.70	1.00	1.00
Satd. Flow (perm)	920	3548		883	3423		1360	3710		1230	1810	1547
Peak-hour factor, PHF	0.85	0.85	0.85	0.83	0.83	0.83	0.84	0.84	0.84	0.87	0.87	0.87
Adj. Flow (vph)	220	321	15	12	277	96	20	74	15	51	133	229
RTOR Reduction (vph)	0	6	0	0	53	0	0	9	0	0	0	137
Lane Group Flow (vph)	220	330	0	12	320	0	20	80	0	51	133	92
Confl. Peds. (#/hr)	4		4	4		4	2		6	6		2
Confl. Bikes (#/hr)			1			1						
Heavy Vehicles (%)	2%	1%	0%	10%	1%	1%	0%	4%	23%	0%	5%	3%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		4
Actuated Green, G (s)	26.9	26.9		26.9	26.9		24.1	24.1		24.1	24.1	24.1
Effective Green, g (s)	26.9	26.9		26.9	26.9		24.1	24.1		24.1	24.1	24.1
Actuated g/C Ratio	0.45	0.45		0.45	0.45		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Grp Cap (vph)	412	1590		395	1534		546	1490		494	727	621
v/s Ratio Prot		0.09			0.09			0.02			c0.07	
v/s Ratio Perm	c0.24			0.01			0.01			0.04		0.06
v/c Ratio	0.53	0.21		0.03	0.21		0.04	0.05		0.10	0.18	0.15
Uniform Delay, d1	12.0	10.1		9.3	10.1		10.9	11.0		11.2	11.6	11.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	4.9	0.3		0.1	0.3		0.1	0.1		0.4	0.6	0.5
Delay (s)	16.9	10.4		9.4	10.4		11.0	11.0		11.6	12.1	11.9
Level of Service	B	B		A	B		B	B		B	B	B
Approach Delay (s)		12.9			10.4			11.0			12.0	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	11.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	61.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

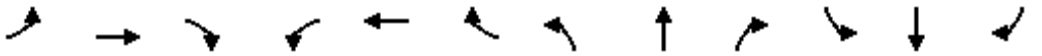
Intersection	
Intersection Delay, s/veh	15.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	41	265	21	20	292	49	14	85	13	29	69	18
Future Vol, veh/h	41	265	21	20	292	49	14	85	13	29	69	18
Peak Hour Factor	0.84	0.84	0.84	0.89	0.89	0.89	0.89	0.89	0.89	0.67	0.67	0.67
Heavy Vehicles, %	3	2	5	0	1	2	0	1	0	0	3	0
Mvmt Flow	49	315	25	22	328	55	16	96	15	43	103	27
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	15.8	18.1	11.5	12.2
HCM LOS	C	C	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	12%	100%	0%	100%	0%	25%
Vol Thru, %	76%	0%	93%	0%	86%	59%
Vol Right, %	12%	0%	7%	0%	14%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	112	41	286	20	341	116
LT Vol	14	41	0	20	0	29
Through Vol	85	0	265	0	292	69
RT Vol	13	0	21	0	49	18
Lane Flow Rate	126	49	340	22	383	173
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.226	0.09	0.571	0.041	0.634	0.305
Departure Headway (Hd)	6.465	6.62	6.042	6.552	5.959	6.332
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	550	538	592	544	602	563
Service Time	4.564	4.393	3.815	4.323	3.729	4.424
HCM Lane V/C Ratio	0.229	0.091	0.574	0.04	0.636	0.307
HCM Control Delay	11.5	10.1	16.6	9.6	18.6	12.2
HCM Lane LOS	B	B	C	A	C	B
HCM 95th-tile Q	0.9	0.3	3.6	0.1	4.5	1.3

FUTURE (2024) WITH PROJECT TRAFFIC CONDITIONS
WEEKDAY PM PEAK HOUR



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	237	347	34	6	360	102	44	170	18	157	174	219
Future Volume (vph)	237	347	34	6	360	102	44	170	18	157	174	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	12	10	12	12	14	16	12	10	12	12
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.97		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1649	3521		1527	3444		1923	3807		1679	1810	1547
Flt Permitted	0.41	1.00		0.48	1.00		0.63	1.00		0.61	1.00	1.00
Satd. Flow (perm)	714	3521		778	3444		1280	3807		1083	1810	1547
Peak-hour factor, PHF	0.85	0.85	0.85	0.83	0.83	0.83	0.84	0.84	0.84	0.87	0.87	0.87
Adj. Flow (vph)	279	408	40	7	434	123	52	202	21	180	200	252
RTOR Reduction (vph)	0	12	0	0	44	0	0	13	0	0	0	151
Lane Group Flow (vph)	279	436	0	7	513	0	52	210	0	180	200	101
Confl. Peds. (#/hr)	4		4	4		4	2		6	6		2
Confl. Bikes (#/hr)			1			1						
Heavy Vehicles (%)	2%	1%	0%	10%	1%	1%	0%	4%	23%	0%	5%	3%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		4
Actuated Green, G (s)	26.9	26.9		26.9	26.9		24.1	24.1		24.1	24.1	24.1
Effective Green, g (s)	26.9	26.9		26.9	26.9		24.1	24.1		24.1	24.1	24.1
Actuated g/C Ratio	0.45	0.45		0.45	0.45		0.40	0.40		0.40	0.40	0.40
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Grp Cap (vph)	320	1578		348	1544		514	1529		435	727	621
v/s Ratio Prot		0.12			0.15			0.06			0.11	
v/s Ratio Perm	c0.39			0.01			0.04			c0.17		0.07
v/c Ratio	0.87	0.28		0.02	0.33		0.10	0.14		0.41	0.28	0.16
Uniform Delay, d1	15.0	10.4		9.2	10.7		11.2	11.4		12.9	12.1	11.5
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	26.3	0.4		0.1	0.6		0.4	0.2		2.9	0.9	0.6
Delay (s)	41.3	10.9		9.3	11.3		11.6	11.6		15.8	13.0	12.1
Level of Service	D	B		A	B		B	B		B	B	B
Approach Delay (s)		22.5			11.3			11.6			13.4	
Approach LOS		C			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	66.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	71	430	23	22	397	45	29	105	32	52	89	29
Future Vol, veh/h	71	430	23	22	397	45	29	105	32	52	89	29
Peak Hour Factor	0.84	0.84	0.84	0.89	0.89	0.89	0.89	0.89	0.89	0.67	0.67	0.67
Heavy Vehicles, %	3	2	5	0	1	2	0	1	0	0	3	0
Mvmt Flow	85	512	27	25	446	51	33	118	36	78	133	43
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	91.6	74	18.3	22
HCM LOS	F	F	C	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	17%	100%	0%	100%	0%	31%
Vol Thru, %	63%	0%	95%	0%	90%	52%
Vol Right, %	19%	0%	5%	0%	10%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	166	71	453	22	442	170
LT Vol	29	71	0	22	0	52
Through Vol	105	0	430	0	397	89
RT Vol	32	0	23	0	45	29
Lane Flow Rate	187	85	539	25	497	254
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.432	0.188	1.116	0.055	1.028	0.567
Departure Headway (Hd)	8.809	8.258	7.686	8.356	7.782	8.463
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	412	437	475	431	472	429
Service Time	6.809	5.958	5.386	6.056	5.482	6.463
HCM Lane V/C Ratio	0.454	0.195	1.135	0.058	1.053	0.592
HCM Control Delay	18.3	12.9	103.9	11.5	77.1	22
HCM Lane LOS	C	B	F	B	F	C
HCM 95th-tile Q	2.1	0.7	17.8	0.2	14.2	3.4

Intersection: 1: Palm Ave & Commonwealth Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	T	R
Maximum Queue (ft)	150	430	400	30	77	106	63	68	113	130	152	95
Average Queue (ft)	112	204	128	4	47	46	20	19	46	59	62	48
95th Queue (ft)	176	450	422	19	73	81	49	54	87	112	115	82
Link Distance (ft)		400	400		166	166		521	521		171	171
Upstream Blk Time (%)		22	7							0	0	
Queuing Penalty (veh)		0	0							0	0	
Storage Bay Dist (ft)	125			125			70			130		
Storage Blk Time (%)	28	7					0	0		0	0	
Queuing Penalty (veh)	52	17					0	0		0	0	

Intersection: 2: Raymond Ave & Commonwealth Ave

Movement	EB	EB	B22	WB	WB	NB	SB
Directions Served	L	TR	T	L	TR	LTR	LTR
Maximum Queue (ft)	94	244	241	79	254	98	123
Average Queue (ft)	43	122	27	24	91	49	49
95th Queue (ft)	104	230	136	67	182	81	90
Link Distance (ft)		144	166		875	409	262
Upstream Blk Time (%)		17	2				
Queuing Penalty (veh)		102	8				
Storage Bay Dist (ft)	70			55			
Storage Blk Time (%)	0	32		0	26		
Queuing Penalty (veh)	1	25		1	6		

Intersection: 3: Palm Ave & Teagarden Ln/Costco Dwy

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	L	L	TR
Maximum Queue (ft)	164	30	30	26	8
Average Queue (ft)	70	10	6	2	0
95th Queue (ft)	132	34	26	14	5
Link Distance (ft)	212	184	185	499	499
Upstream Blk Time (%)	0				
Queuing Penalty (veh)	0				
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 4: Project Main Dwy & Palm Ave

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	211	91	56	6	53	41
Average Queue (ft)	93	29	26	0	13	3
95th Queue (ft)	167	63	57	4	41	19
Link Distance (ft)	198	115		92	185	185
Upstream Blk Time (%)	2	0				
Queuing Penalty (veh)	0	0				
Storage Bay Dist (ft)			90			
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 5: Palm Ave & Pepper St/Project South Dwy

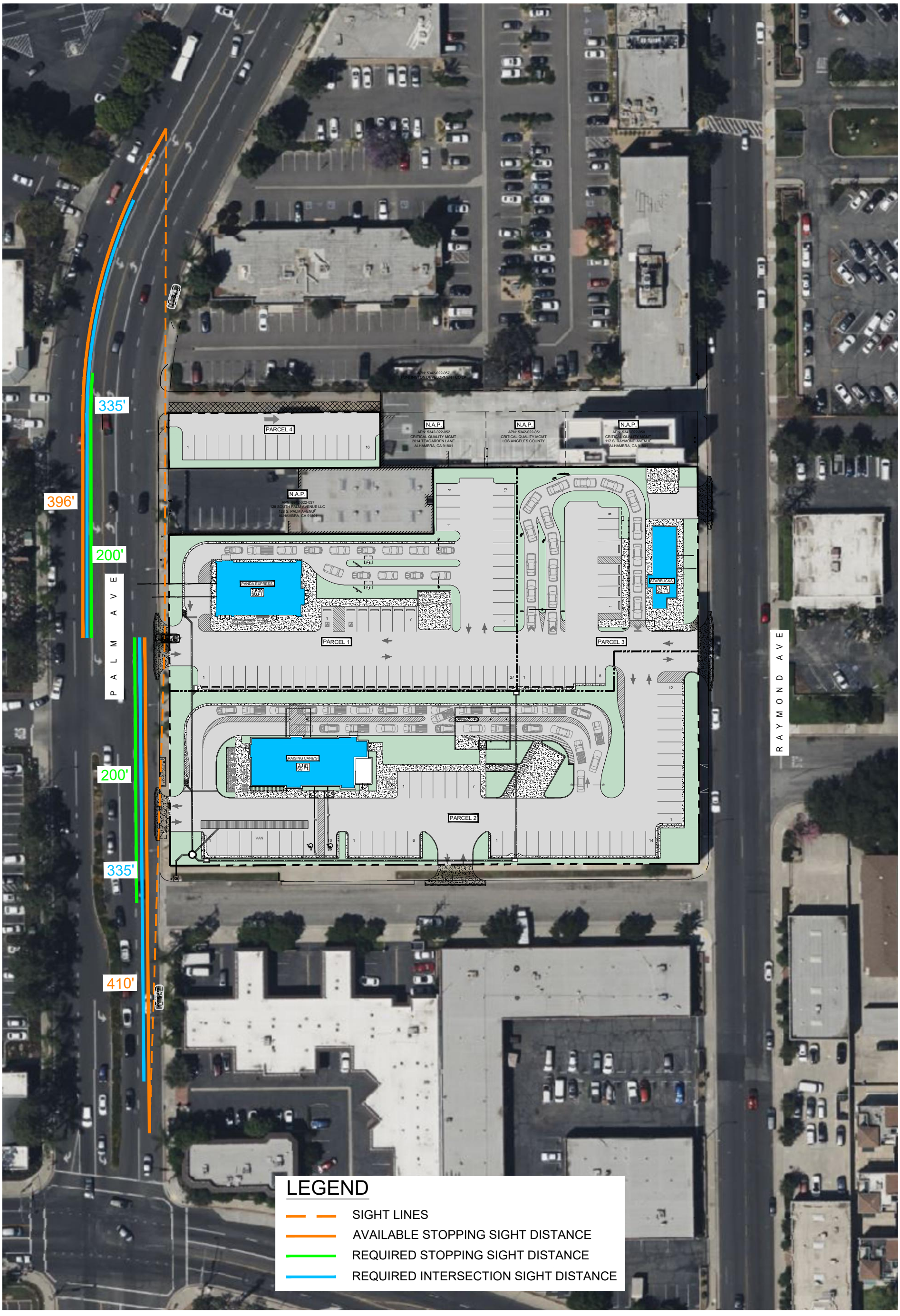
Movement	WB	SB
Directions Served	R	T
Maximum Queue (ft)	38	10
Average Queue (ft)	15	0
95th Queue (ft)	41	6
Link Distance (ft)	337	92
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 213

APPENDIX E

PROJECT DRIVEWAY SIGHT DISTANCE ANALYSIS



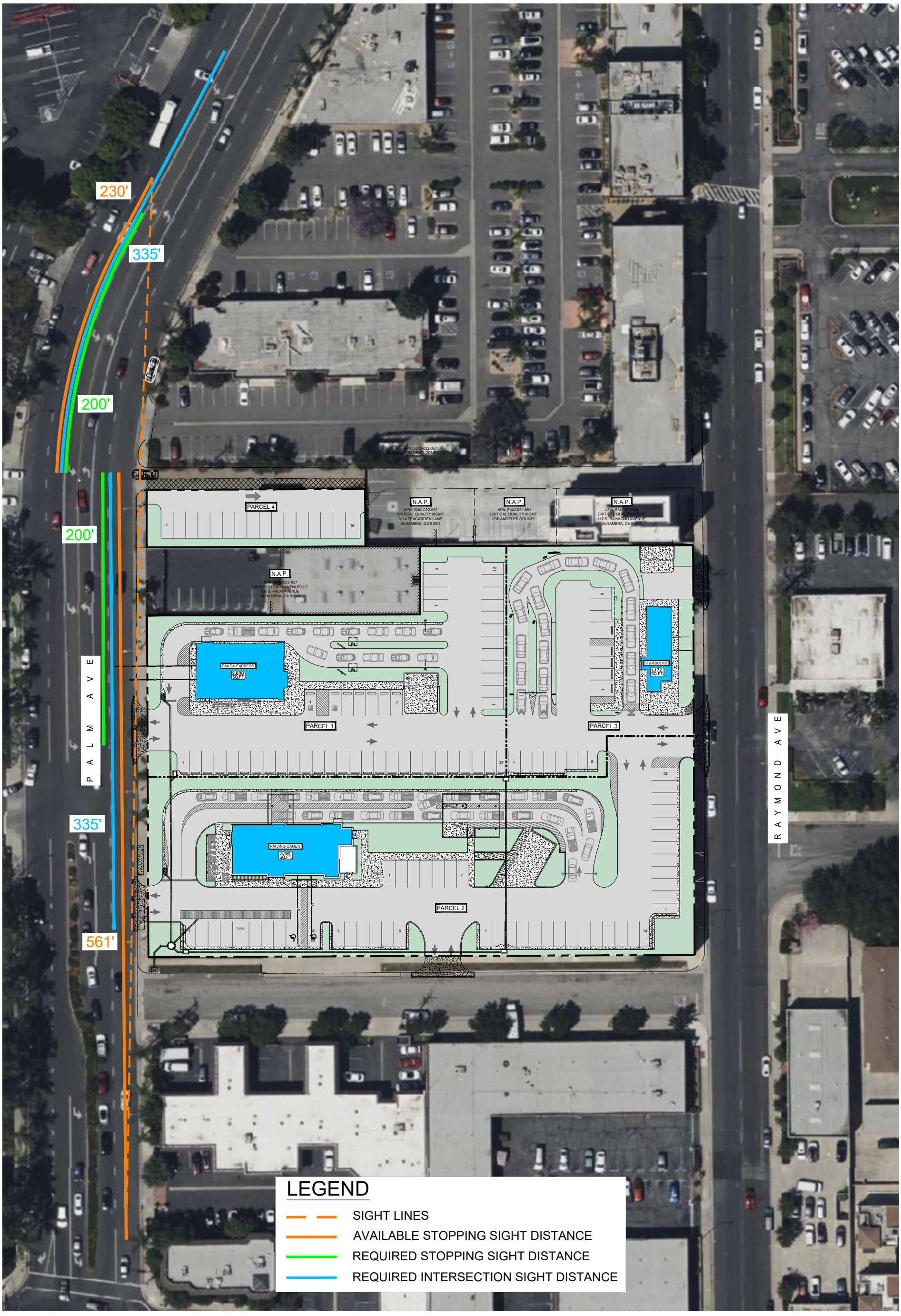
APPENDIX E-1

12/2/2022

JC28074 CFT Plaza Alhambra Palm Ave & Pepper St\SightDistances

SIGHT DISTANCE ANALYSIS
PALM AVENUE - MAIN DRIVEWAY

300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.koacorp.com



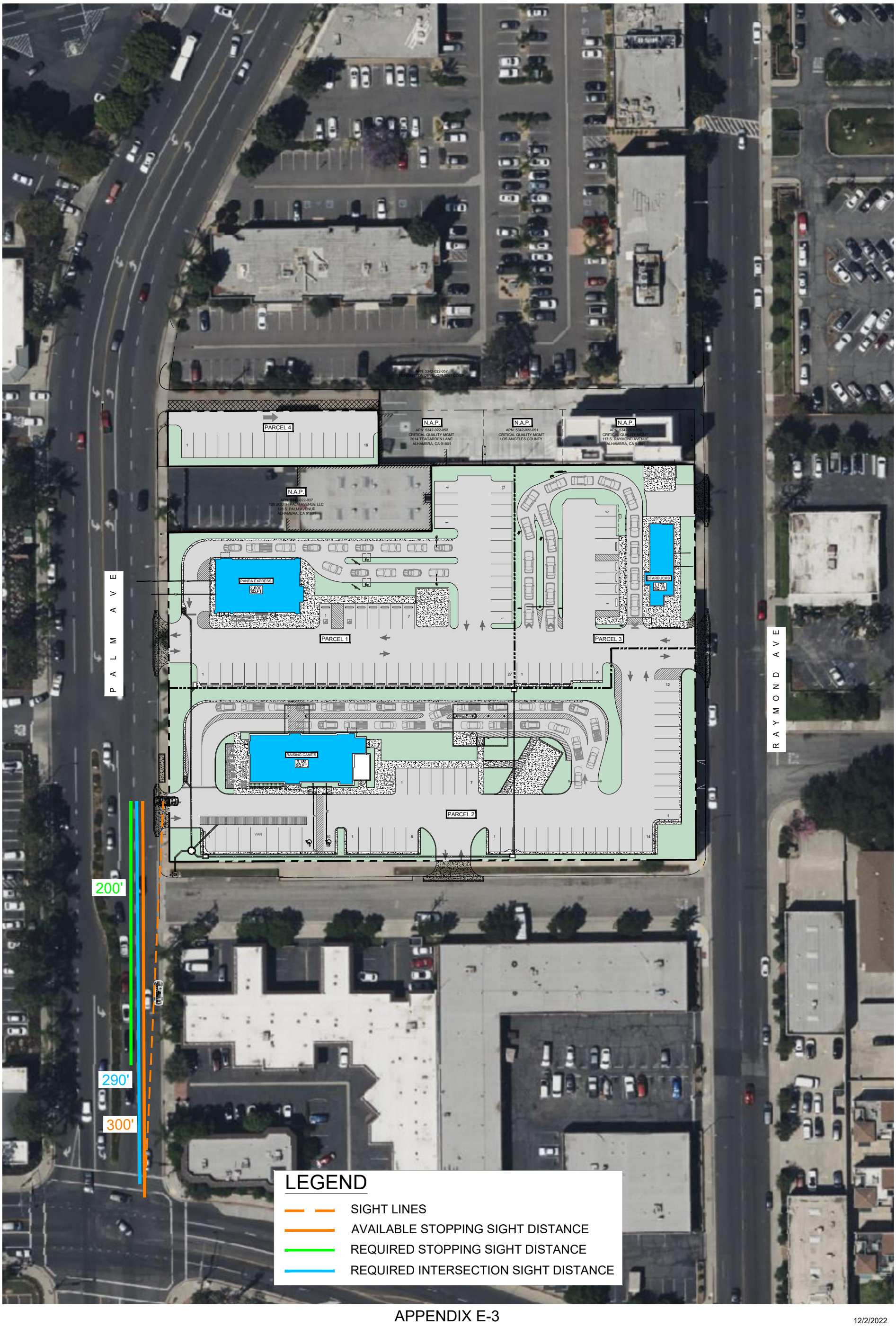
APPENDIX E-2

12/2/2022

JC28074 CFT Plaza Alhambra Palm Ave & Pepper St\SightDistances

SIGHT DISTANCE ANALYSIS
PALM AVENUE - NORTH DRIVEWAY/TEAGARDEN LANE

300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.koacorp.com



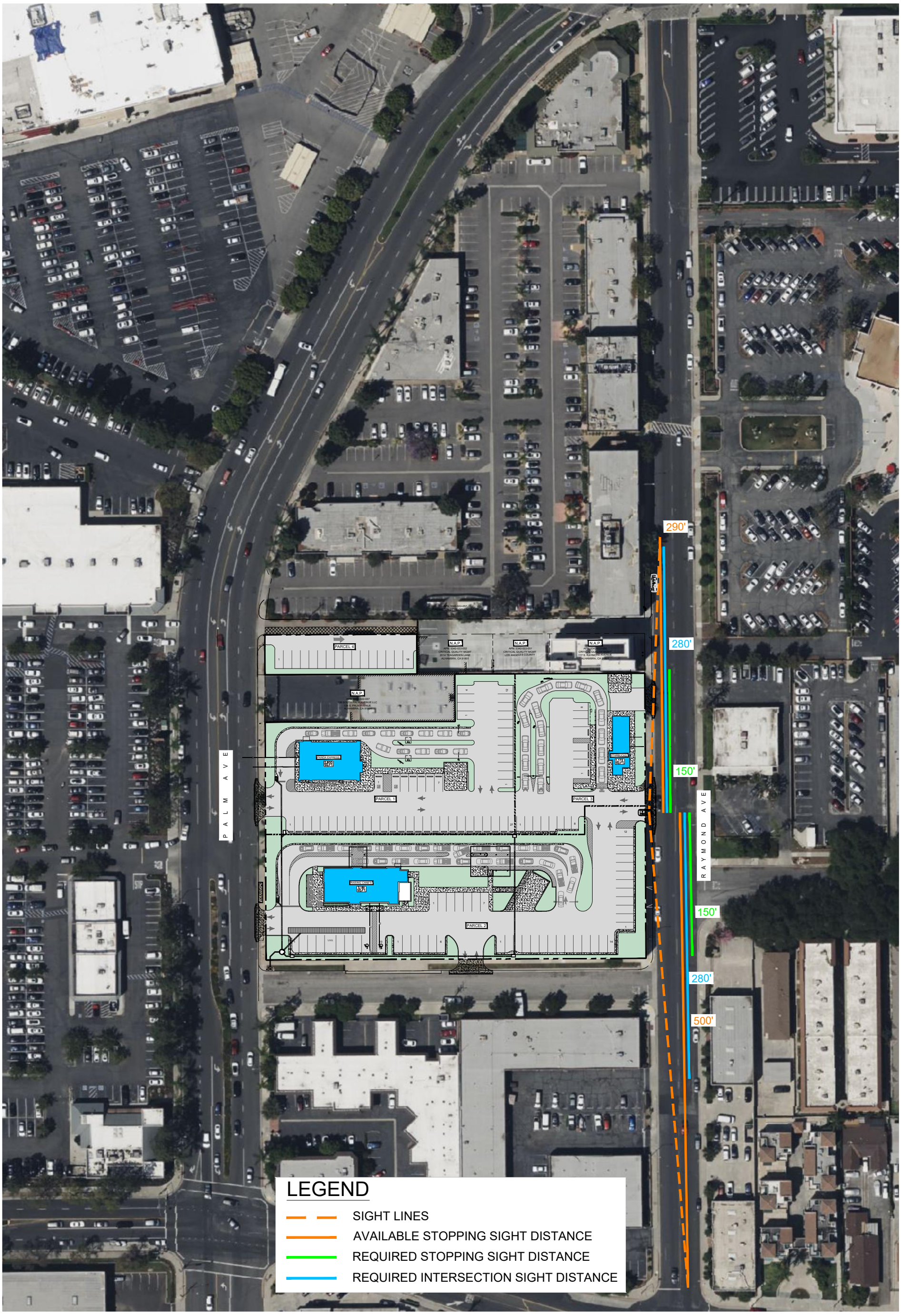
APPENDIX E-3

12/2/2022

JC28074 CFT Plaza Alhambra Palm Ave & Pepper St\SightDistances

SIGHT DISTANCE ANALYSIS
PALM AVENUE - SOUTH DRIVEWAY

300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.koacorp.com



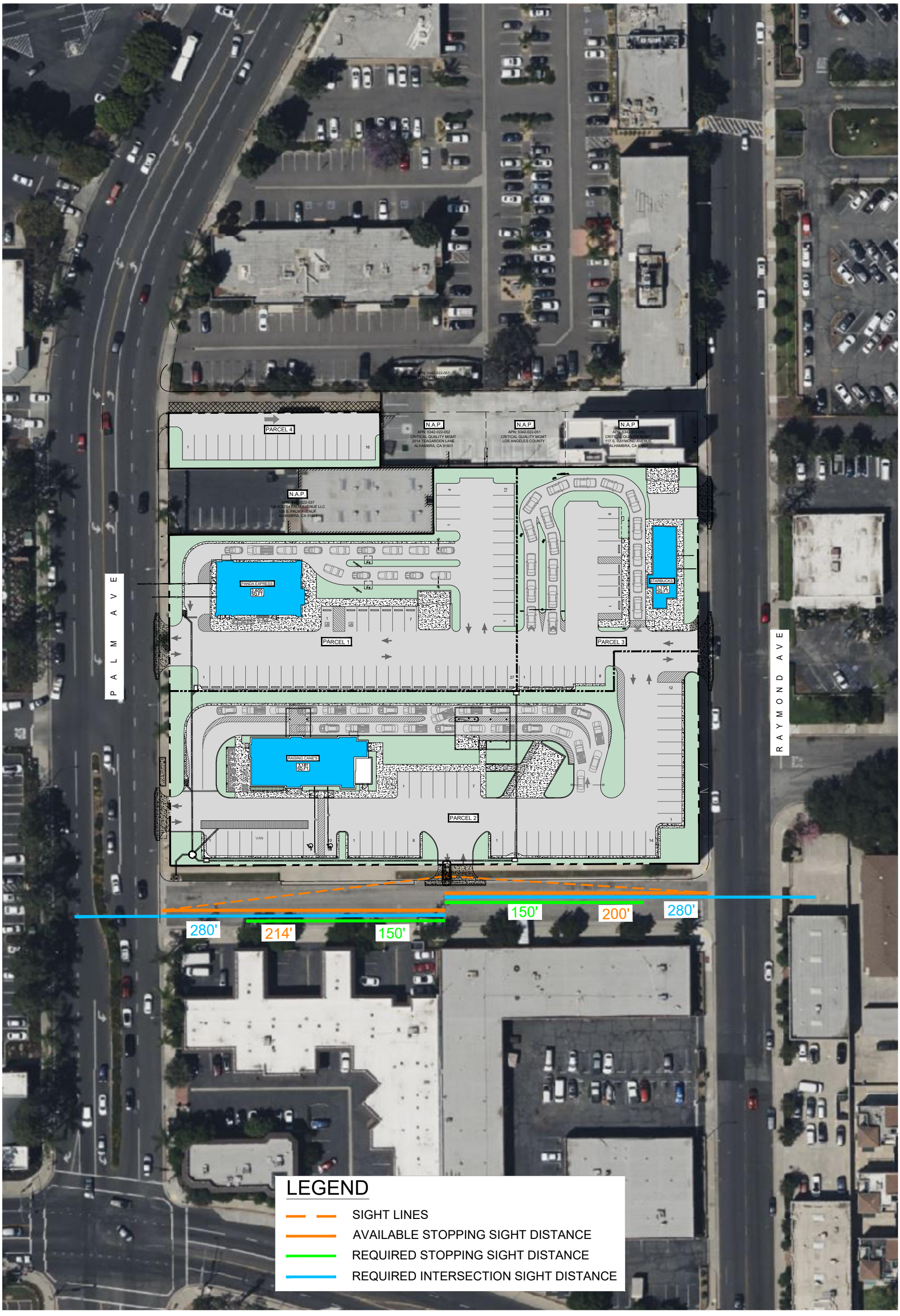
APPENDIX E-4

12/2/2022

JC28074 CFT Plaza Alhambra Palm Ave & Pepper St\SightDistances

SIGHT DISTANCE ANALYSIS
RAYMOND AVENUE - MAIN DRIVEWAY

300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.koacorp.com



APPENDIX E-5

12/2/2022

JC28074 CFT Plaza Alhambra Palm Ave & Pepper St\SightDistances

SIGHT DISTANCE ANALYSIS
PEPPER STREET DRIVEWAY

300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.koacorp.com

APPENDIX F

DRIVE-THROUGH LANE VEHICLE QUEUING STUDY SURVEY RESTAURANT DATA

Panda Express Walnut- Weekday MD

Location:	558 Grand Avenue	Date:	5/17/2022
City:	Walnut	Day:	Tuesday

Queue Study

Time	Total Queue
11:00 AM	1
11:05 AM	4
11:10 AM	2
11:15 AM	1
11:20 AM	1
11:25 AM	3
11:30 AM	3
11:35 AM	2
11:40 AM	3
11:45 AM	5
11:50 AM	4
11:55 AM	3
12:00 PM	3
12:05 PM	4
12:10 PM	4
12:15 PM	4
12:20 PM	5
12:25 PM	4
12:30 PM	3
12:35 PM	4
12:40 PM	3
12:45 PM	3
12:50 PM	3
12:55 PM	4
1:00 PM	6
1:05 PM	5
1:10 PM	2
1:15 PM	3
1:20 PM	3
1:25 PM	2
1:30 PM	4
1:35 PM	4
1:40 PM	4
1:45 PM	3
1:50 PM	2
1:55 PM	1
2:00 PM	3

Panda Express Walnut - Weekday PM

Location:	558 Grand Avenue	Date:	5/17/2022
City:	Walnut	Day:	Tuesday

Queue Study

Time	Total Queue
5:00 PM	1
5:05 PM	5
5:10 PM	3
5:15 PM	7
5:20 PM	6
5:25 PM	4
5:30 PM	3
5:35 PM	5
5:40 PM	4
5:45 PM	2
5:50 PM	4
5:55 PM	2
6:00 PM	5
6:05 PM	5
6:10 PM	1
6:15 PM	3
6:20 PM	3
6:25 PM	2
6:30 PM	3
6:35 PM	1
6:40 PM	3
6:45 PM	1
6:50 PM	2
6:55 PM	2
7:00 PM	1
7:05 PM	1
7:10 PM	2
7:15 PM	3
7:20 PM	2
7:25 PM	3
7:30 PM	3
7:35 PM	3
7:40 PM	2
7:45 PM	1
7:50 PM	2
7:55 PM	2
8:00 PM	4

Panda Express Walnut- Saturday PM

Location:	558 Grand Avenue	Date:	5/14/2022
City:	Walnut	Day:	Saturday

Queue Study

Time	Total Queue
5:00 PM	1
5:05 PM	2
5:10 PM	3
5:15 PM	2
5:20 PM	2
5:25 PM	3
5:30 PM	2
5:35 PM	2
5:40 PM	2
5:45 PM	2
5:50 PM	0
5:55 PM	1
6:00 PM	2
6:05 PM	4
6:10 PM	5
6:15 PM	6
6:20 PM	6
6:25 PM	5
6:30 PM	2
6:35 PM	1
6:40 PM	2
6:45 PM	1
6:50 PM	1
6:55 PM	4
7:00 PM	4
7:05 PM	2
7:10 PM	1
7:15 PM	0
7:20 PM	0
7:25 PM	2
7:30 PM	4
7:35 PM	4
7:40 PM	0
7:45 PM	2
7:50 PM	2
7:55 PM	4
8:00 PM	3

Panda Express San Dimas - Weekday MD

Location:	508 N. Lone Hill Avenue	Date:	5/17/2022
City:	San Dimas	Day:	Tuesday

Queue Study

Time	Total Queue
11:00 AM	1
11:05 AM	1
11:10 AM	3
11:15 AM	5
11:20 AM	5
11:25 AM	9
11:30 AM	3
11:35 AM	4
11:40 AM	5
11:45 AM	3
11:50 AM	3
11:55 AM	3
12:00 PM	5
12:05 PM	5
12:10 PM	8
12:15 PM	7
12:20 PM	6
12:25 PM	2
12:30 PM	3
12:35 PM	3
12:40 PM	4
12:45 PM	5
12:50 PM	4
12:55 PM	3
1:00 PM	3
1:05 PM	3
1:10 PM	5
1:15 PM	6
1:20 PM	4
1:25 PM	2
1:30 PM	3
1:35 PM	6
1:40 PM	8
1:45 PM	7
1:50 PM	7
1:55 PM	5
2:00 PM	5

Panda Express San Dimas - Weekday PM

Location:	508 N. Lone Hill Avenue	Date:	5/17/2022
City:	San Dimas	Day:	Tuesday

Queue Study

Time	Total Queue
5:00 PM	2
5:05 PM	2
5:10 PM	1
5:15 PM	4
5:20 PM	2
5:25 PM	2
5:30 PM	3
5:35 PM	4
5:40 PM	2
5:45 PM	4
5:50 PM	3
5:55 PM	3
6:00 PM	5
6:05 PM	8
6:10 PM	9
6:15 PM	6
6:20 PM	5
6:25 PM	5
6:30 PM	4
6:35 PM	2
6:40 PM	4
6:45 PM	2
6:50 PM	2
6:55 PM	4
7:00 PM	5
7:05 PM	3
7:10 PM	6
7:15 PM	4
7:20 PM	1
7:25 PM	4
7:30 PM	5
7:35 PM	3
7:40 PM	5
7:45 PM	3
7:50 PM	2
7:55 PM	3
8:00 PM	6

Panda Express San Dimas - Saturday PM

Location:	508 N. Lone Hill Avenue	Date:	5/14/2022
City:	San Dimas	Day:	Saturday

Queue Study

Time	Total Queue
5:00 PM	3
5:05 PM	5
5:10 PM	5
5:15 PM	7
5:20 PM	4
5:25 PM	4
5:30 PM	3
5:35 PM	6
5:40 PM	8
5:45 PM	5
5:50 PM	7
5:55 PM	8
6:00 PM	7
6:05 PM	7
6:10 PM	8
6:15 PM	9
6:20 PM	8
6:25 PM	7
6:30 PM	4
6:35 PM	6
6:40 PM	5
6:45 PM	7
6:50 PM	6
6:55 PM	6
7:00 PM	7
7:05 PM	5
7:10 PM	5
7:15 PM	4
7:20 PM	6
7:25 PM	7
7:30 PM	9
7:35 PM	5
7:40 PM	8
7:45 PM	9
7:50 PM	8
7:55 PM	7
8:00 PM	6

Raising Cane's Pico Rivera - Weekday MD

Location:	5005 Paramount Blvd	Date:	5/17/2022
City:	Pico Rivera	Day:	Tuesday

Queue Study

Time	Total Queue
10:30 AM	2
10:35 AM	3
10:40 AM	5
10:45 AM	2
10:50 AM	3
10:55 AM	3
11:00 AM	2
11:05 AM	2
11:10 AM	4
11:15 AM	2
11:20 AM	1
11:25 AM	2
11:30 AM	2
11:35 AM	2
11:40 AM	3
11:45 AM	1
11:50 AM	2
11:55 AM	2
12:00 PM	2
12:05 PM	1
12:10 PM	2
12:15 PM	2
12:20 PM	1
12:25 PM	2
12:30 PM	2
12:35 PM	2
12:40 PM	1
12:45 PM	3
12:50 PM	9
12:55 PM	8
1:00 PM	7
1:05 PM	9
1:10 PM	7
1:15 PM	7
1:20 PM	8
1:25 PM	6
1:30 PM	7

Raising Cane's Pico Rivera - Weekday PM

Location:	5005 Paramount Blvd	Date:	5/17/2022
City:	Pico Rivera	Day:	Tuesday

Queue Study

Time	Total Queue
5:00 PM	3
5:05 PM	4
5:10 PM	6
5:15 PM	6
5:20 PM	4
5:25 PM	4
5:30 PM	4
5:35 PM	4
5:40 PM	3
5:45 PM	7
5:50 PM	4
5:55 PM	3
6:00 PM	3
6:05 PM	1
6:10 PM	3
6:15 PM	3
6:20 PM	3
6:25 PM	4
6:30 PM	7
6:35 PM	7
6:40 PM	7
6:45 PM	3
6:50 PM	4
6:55 PM	3
7:00 PM	2
7:05 PM	6
7:10 PM	8
7:15 PM	10
7:20 PM	13
7:25 PM	16
7:30 PM	15
7:35 PM	17
7:40 PM	18
7:45 PM	17
7:50 PM	19
7:55 PM	11
8:00 PM	13

Raising Cane's Pico Rivera - Saturday PM

Location:	5005 Paramount Blvd	Date:	5/14/2022
City:	Pico Rivera	Day:	Saturday

Queue Study

Time	Total Queue
5:00 PM	13
5:05 PM	8
5:10 PM	8
5:15 PM	6
5:20 PM	3
5:25 PM	5
5:30 PM	3
5:35 PM	2
5:40 PM	3
5:45 PM	4
5:50 PM	11
5:55 PM	15
6:00 PM	14
6:05 PM	14
6:10 PM	15
6:15 PM	11
6:20 PM	12
6:25 PM	10
6:30 PM	12
6:35 PM	11
6:40 PM	17
6:45 PM	19
6:50 PM	18
6:55 PM	15
7:00 PM	21
7:05 PM	18
7:10 PM	22
7:15 PM	17
7:20 PM	20
7:25 PM	18
7:30 PM	16
7:35 PM	13
7:40 PM	11
7:45 PM	15
7:50 PM	23
7:55 PM	23
8:00 PM	19

Raising Cane's Baldwin Park - Weekday MD

Location:	13602 Francisquito Ave	Date:	5/17/2022
City:	Baldwin Park	Day:	Tuesday

Queue Study

Time	Total Queue
10:30 AM	1
10:35 AM	3
10:40 AM	3
10:45 AM	2
10:50 AM	0
10:55 AM	2
11:00 AM	2
11:05 AM	2
11:10 AM	4
11:15 AM	4
11:20 AM	4
11:25 AM	3
11:30 AM	3
11:35 AM	2
11:40 AM	2
11:45 AM	9
11:50 AM	9
11:55 AM	9
12:00 PM	9
12:05 PM	5
12:10 PM	2
12:15 PM	5
12:20 PM	5
12:25 PM	9
12:30 PM	8
12:35 PM	9
12:40 PM	12
12:45 PM	11
12:50 PM	6
12:55 PM	3
1:00 PM	3
1:05 PM	5
1:10 PM	13
1:15 PM	15
1:20 PM	12
1:25 PM	9
1:30 PM	10

Raising Cane's Baldwin Park - Weekday PM

Location:	13602 Francisquito Ave	Date:	5/17/2022
City:	Baldwin Park	Day:	Tuesday

Queue Study

Time	Total Queue
5:00 PM	7
5:05 PM	8
5:10 PM	8
5:15 PM	10
5:20 PM	12
5:25 PM	14
5:30 PM	14
5:35 PM	11
5:40 PM	12
5:45 PM	13
5:50 PM	9
5:55 PM	8
6:00 PM	8
6:05 PM	11
6:10 PM	8
6:15 PM	7
6:20 PM	9
6:25 PM	9
6:30 PM	15
6:35 PM	18
6:40 PM	15
6:45 PM	21
6:50 PM	19
6:55 PM	13
7:00 PM	15
7:05 PM	17
7:10 PM	23
7:15 PM	19
7:20 PM	17
7:25 PM	18
7:30 PM	15
7:35 PM	15
7:40 PM	17
7:45 PM	15
7:50 PM	13
7:55 PM	14
8:00 PM	13

Raising Cane's Baldwin Park - Saturday PM

Location:	13602 Francisquito Ave	Date:	5/14/2022
City:	Baldwin Park	Day:	Saturday

Queue Study

Time	Total Queue
5:00 PM	8
5:05 PM	7
5:10 PM	3
5:15 PM	7
5:20 PM	5
5:25 PM	8
5:30 PM	7
5:35 PM	5
5:40 PM	2
5:45 PM	5
5:50 PM	7
5:55 PM	6
6:00 PM	8
6:05 PM	7
6:10 PM	7
6:15 PM	12
6:20 PM	12
6:25 PM	12
6:30 PM	10
6:35 PM	12
6:40 PM	14
6:45 PM	15
6:50 PM	14
6:55 PM	12
7:00 PM	9
7:05 PM	9
7:10 PM	12
7:15 PM	16
7:20 PM	17
7:25 PM	18
7:30 PM	13
7:35 PM	16
7:40 PM	15
7:45 PM	9
7:50 PM	10
7:55 PM	9
8:00 PM	10

Starbucks El Monte - Weekday AM

Location:	9702 Lower Azusa Rd	Date:	5/17/2022
City:	El Monte	Day:	Tuesday

Queue Study

Time	Total Queue
6:30 AM	4
6:35 AM	2
6:40 AM	3
6:45 AM	3
6:50 AM	7
6:55 AM	7
7:00 AM	7
7:05 AM	4
7:10 AM	5
7:15 AM	6
7:20 AM	7
7:25 AM	6
7:30 AM	5
7:35 AM	7
7:40 AM	6
7:45 AM	7
7:50 AM	5
7:55 AM	6
8:00 AM	3
8:05 AM	4
8:10 AM	5
8:15 AM	3
8:20 AM	2
8:25 AM	1
8:30 AM	2
8:35 AM	2
8:40 AM	7
8:45 AM	4
8:50 AM	5
8:55 AM	4
9:00 AM	3
9:05 AM	4
9:10 AM	4
9:15 AM	3
9:20 AM	1
9:25 AM	4
9:30 AM	3
9:35 AM	3
9:40 AM	2
9:45 AM	1
9:50 AM	1
9:55 AM	2
10:00 AM	1
10:05 AM	3
10:10 AM	9
10:15 AM	6
10:20 AM	3
10:25 AM	2
10:30 AM	4

Starbucks El Monte - Saturday AM

Location:	9702 Lower Azusa Rd	Date:	5/14/2022
City:	El Monte	Day:	Saturday

Queue Study

Time	Total Queue
6:30 AM	0
6:35 AM	1
6:40 AM	1
6:45 AM	2
6:50 AM	0
6:55 AM	3
7:00 AM	2
7:05 AM	1
7:10 AM	2
7:15 AM	2
7:20 AM	1
7:25 AM	4
7:30 AM	4
7:35 AM	4
7:40 AM	3
7:45 AM	2
7:50 AM	3
7:55 AM	5
8:00 AM	4
8:05 AM	3
8:10 AM	3
8:15 AM	4
8:20 AM	3
8:25 AM	4
8:30 AM	6
8:35 AM	7
8:40 AM	9
8:45 AM	12
8:50 AM	8
8:55 AM	7
9:00 AM	7
9:05 AM	6
9:10 AM	4
9:15 AM	6
9:20 AM	8
9:25 AM	5
9:30 AM	7
9:35 AM	5
9:40 AM	3
9:45 AM	7
9:50 AM	9
9:55 AM	8
10:00 AM	11
10:05 AM	10
10:10 AM	9
10:15 AM	9
10:20 AM	10
10:25 AM	9
10:30 AM	8

Starbucks El Monte - Weekday AM

Location:	10613 Garvey Avenue	Date:	5/17/2022
City:	El Monte	Day:	Tuesday

Queue Study

Time	Total Queue
6:30 AM	5
6:35 AM	4
6:40 AM	5
6:45 AM	4
6:50 AM	1
6:55 AM	5
7:00 AM	8
7:05 AM	0
7:10 AM	4
7:15 AM	7
7:20 AM	6
7:25 AM	8
7:30 AM	5
7:35 AM	8
7:40 AM	5
7:45 AM	6
7:50 AM	10
7:55 AM	10
8:00 AM	5
8:05 AM	7
8:10 AM	6
8:15 AM	6
8:20 AM	4
8:25 AM	7
8:30 AM	6
8:35 AM	7
8:40 AM	7
8:45 AM	4
8:50 AM	9
8:55 AM	8
9:00 AM	10
9:05 AM	5
9:10 AM	3
9:15 AM	3
9:20 AM	1
9:25 AM	5
9:30 AM	3
9:35 AM	4
9:40 AM	8
9:45 AM	8
9:50 AM	8
9:55 AM	8
10:00 AM	9
10:05 AM	8
10:10 AM	6
10:15 AM	5
10:20 AM	4
10:25 AM	5
10:30 AM	6

Starbucks El Monte - Saturday AM

Location:	10613 Garvey Avenue	Date:	5/14/2022
City:	El Monte	Day:	Saturday

Queue Study

Time	Total Queue
6:30 AM	3
6:35 AM	3
6:40 AM	3
6:45 AM	4
6:50 AM	6
6:55 AM	4
7:00 AM	3
7:05 AM	3
7:10 AM	5
7:15 AM	7
7:20 AM	6
7:25 AM	5
7:30 AM	4
7:35 AM	7
7:40 AM	8
7:45 AM	6
7:50 AM	5
7:55 AM	6
8:00 AM	7
8:05 AM	6
8:10 AM	6
8:15 AM	8
8:20 AM	6
8:25 AM	7
8:30 AM	8
8:35 AM	9
8:40 AM	11
8:45 AM	7
8:50 AM	7
8:55 AM	9
9:00 AM	6
9:05 AM	5
9:10 AM	6
9:15 AM	8
9:20 AM	5
9:25 AM	7
9:30 AM	9
9:35 AM	11
9:40 AM	8
9:45 AM	9
9:50 AM	6
9:55 AM	5
10:00 AM	5
10:05 AM	5
10:10 AM	8
10:15 AM	6
10:20 AM	7
10:25 AM	8
10:30 AM	6

APPENDIX G

RAISING CANE'S RESTAURANT (MONROVIA, CA)
ON-SITE TRAFFIC MANAGEMENT PLAN

Raising Cane's Restaurant #0685

945 W Huntington Dr, Monrovia, CA 91016

On-Site Traffic Management Plan

Date Prepared: September 9, 2021

INTRODUCTION

This On-Site Traffic Management Plan (TMP) has been prepared for the proposed Raising Cane's restaurant at 945 W Huntington Dr, Monrovia, CA 91016. The purpose of this TMP is to develop an ingress/egress traffic circulation, queuing management and operations plan to address both peak and standard traffic circulation and queuing periods. Additionally, the intent of the TMP is to reduce the potential for impacts to the adjacent public Right-of-Way and existing Shopping Center and to provide the City of Monrovia and Raising Cane's mechanisms and guidelines to employ for various stages and phases of on-site traffic operations.

The project site location is shown in its regional setting in Figure 1 hereon.

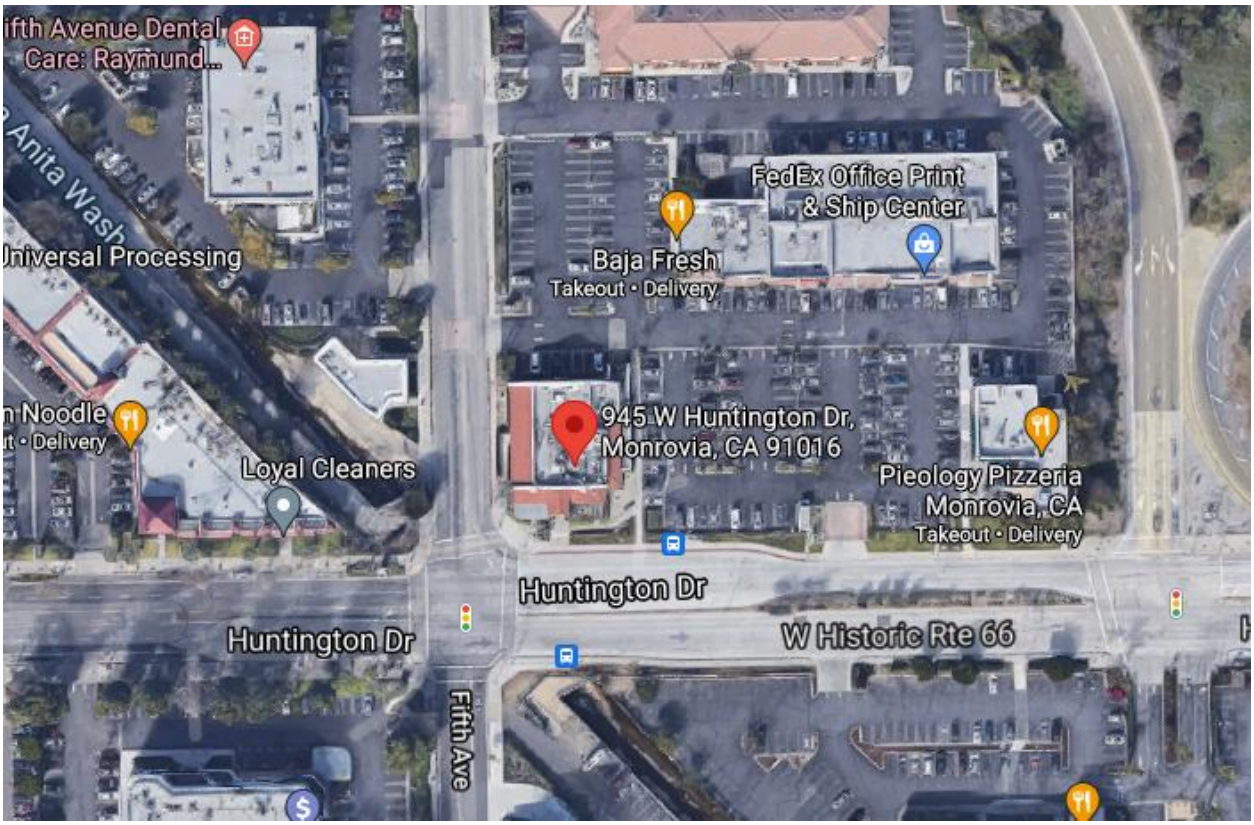


Figure 1 – Vicinity Map

PROJECT DESCRIPTION

The project site is located at 945 W Huntington Dr, Monrovia, CA 91016, bounded by Fifth Avenue to the west, Huntington Drive to the South and an existing commercial shopping center to the north and east. Surrounding land uses consist of commercial to the north, east, south, and west.

The existing project site is currently occupied by a 7,401 square-foot restaurant building surrounded by existing retail and commercial tenants. The project will involve the demolition of the existing building and the construction of a 3,172 square-foot Raising Cane's restaurant

building with a drive-through and outdoor covered patio area. The operating hours for sit-down and drive-through service will be from 9:00 AM to 3:30 AM, seven days a week.

At the completion of the proposed Raising Cane's developments, the existing center will be over-parked by 76 spaces per City of Monrovia Municipal code. The existing parking ratio for the parcel is 1 stall per every 128 square-feet. The proposed project intends to increase this surplus with a proposed parcel parking ratio of 1 stall for every 100 square-feet. See Table 1 below for summary.

Use	Address	Spaces Required	Spaces Provided
Raising Canes Drive Thru Restaurant	945 W Huntington Dr	24	33
Large Multi-Tenant Building (19,420 SF)	929-943 W Huntington Dr	90	175
Small Multi-Tenant Building (5,000 SF)	915-917 W Huntington Dr	39	21
	TOTAL:	*153*	*229*
	Surplus:	76	

Table 1 – Proposed Parking at Huntington Crossings Center

The proposed project would provide two drive-through lanes. In normal conditions, the drive-through lanes would provide two side-by-side entry lanes and two order boards, and then merge into a single drive-through lane prior to the pay and pick-up windows. This scenario is demonstrated as Exhibit A herein. Under peak drive-through conditions, the drive-through lane would continue as two side-by-side lanes, providing dual pay and pick-up stations. Crew members will be present to facilitate payment and food pick up. The peak drive thru scenario has been operationally broken up into multiple phases of deployment to mitigate traffic impacts. Curbside pick-up parking is provided at the front of the store and may be utilized at any time.

The restaurant anticipates employing 45-50 full and part-time employees with an average of 12-15 crew members with 2 managers working per shift. On-site cameras showing exterior activity will be on display inside the restaurant. Kitchen Crewmembers look at the queue to see when they should be prepared to cook. The restaurant anticipates implementing various other operational features to provide an expeditious drive-through operation, including handheld tablet ordering, mobile ordering and pickup, trained Crewmembers to manage traffic, off duty police officers (as deemed necessary), and parking management – all of which are further described in this TMP.

The TMP is comprised of four (4) phases to be implemented for on-site traffic circulation, queuing management, and operational standards to address the standard and peak special event scenarios. Phases 1 and 2 are expected to be deployed during day to day, normal drive-thru operations. Phase 3 will be implemented to fully contain the peak drive thru queue, which typically occurs for 15–20-minute intervals between the hours of 11:30am-1:30pm and 5pm-8pm. Phase 4 is reserved for the "honeymoon/grand opening" phase. This phase is intended to only be needed during the first 90 days of opening and as-needed for special events.

STANDARD – DUAL DRIVE THROUGH LANE TO SINGLE PAY & PICK UP

As mentioned in previous sections of this report, in normal conditions, the drive-through lanes would provide two side-by-side entry lanes and two order boards, and then merge into a single drive-through lane prior to the pay and pick-up windows. This scenario is demonstrated as Exhibit A herein.

- Queue Capacity: 13 vehicles (based on a 24-ft vehicle spacing)
- Minimum of one board will operate at all times.
- Permanent sign reading "No Drive-Thru Access" will be placed at the Huntington Drive entrance to direct all drive-thru traffic to the Fifth Avenue entrance. This is intended to mitigate drive-thru traffic through the existing center's parking lot.

PHASE 1 – DUAL DRIVE THROUGH LANE OPERATIONS

Phase 1 of the TMP illustrates the intended drive-through operation under a standard, non-peak scenario when the queue exceeds the capacity of the standard operational condition and the second pay and pick up lane is opened. Refer to Exhibit B.

- Queue Capacity: 21 vehicles (based on 24-foot vehicle spacing)
- Minimum of one board will operate at all times.
- When volumes increase, such that there are consistently 2 cars waiting to order, as shown in the Standard Drive Through phase, the second lane will be deployed, and two (2) Crewmembers will be deployed for hand-held tablet ordering.
- Staging for Crewmembers is shown on Exhibit B within the striped areas.
- Permanent sign reading "No Drive-Thru Access" will be placed at the Huntington Drive entrance to direct all drive-thru traffic to the Fifth Avenue entrance. This is intended to mitigate drive-thru traffic through the existing center's parking lot.

PHASE 2 – DUAL DRIVE THROUGH LANE OPERATIONS AND EXTENDED QUEUE

Phase 2 of the TMP illustrates the intended drive-through operation under a standard, non-peak, and non-special event scenario when the queue exceeds the capacity of the dual drive-through lane and additional queuing is required. Refer to Exhibit C.

- Queue Capacity: 27 vehicles (based on 24-foot vehicle spacing)
- Crewmembers taking hand-held tablet orders that have been deployed as described in Phase 1 will continue to be in operation.
- An off-duty police officer or Crewmember will be dedicated to direct traffic queue at the eastern entrance of the Raising Cane's parcel. This person will be in charge of making sure the six cars queue in a single lane and prevent traffic congestion in the shopping center drive aisle to the east of the proposed Raising Canes site.
- Permanent sign reading "No Drive-Thru Access" will be placed at the Huntington Drive entrance to direct all drive-thru traffic to the Fifth Avenue entrance. This is intended to mitigate drive-thru traffic through the existing center's parking lot.
- A Crewmember or off duty police officer will be deployed and staged at the "Exit Only" access on the north side of the Raising Cane's parcel to direct traffic and ensure patrons are able to pull out of onsite parking spaces.
- A Crewmember will be dedicated outside and stationed at the pick-up window. This Crewmember will hand the food to patrons in the second drive-thru lane.

- A Crewmember will be staged at the drive through entrance directing customers into each line to distribute the queue to optimize queue storage and drive-through efficiency.
- Mobile orders will be required to use the designated mobile order pickup stalls located in front of the store while the third lane is in operation for drive-through customers.
- Tailgate orders, or orders that are taken back to the car and eaten in the parking lot or tailgate of car, will not be permitted for drive-through customers.

PHASE 3 – DUAL QUEUE WIHTIN PARCEL

Phase 3 of the TMP illustrates the intended drive-through operation under a peak scenario. Refer to Exhibit D. Peak traffic volume is generally from 11:30am – 1:30pm and 5pm – 8pm.

- Queue Capacity: 29 vehicles (based on 24-foot vehicle spacing)
- Crewmember deployment would remain as described in Phase 2.
- Mobile orders will continue to be required to use the designated mobile order pickup stalls located in front of the store while the third lane is in operation for drive-through customers.
- Tailgate orders, or large party-size orders, will not be permitted for drive-through customers.
- On-site security will be employed to help prevent loitering and increase safety for customers and Crewmembers.
- Permanent sign reading "No Drive-Thru Access" will be placed at the Huntington Drive entrance to direct all drive-thru traffic to the Fifth Avenue entrance. This is intended to mitigate drive-thru traffic through the existing center's parking lot.
- Additional crew member will be deployed at Huntington Drive entrance with additional, hand-held sign directing drive thru customers to the entrance on Fifth Avenue during peak hour phases.

PHASE 4 – ADDITIONAL QUEUE STACKING FOR SPECIAL OR HIGH-VOLUME EVENTS

Phase 4 of the TMP illustrates the intended drive-through operation under a peak or special event scenario where the drive through queue exceeds onsite capacity and intends to stack outside the proposed Raising Cane's parcel. This phase of the TMP is considered a "worst-case scenario" for the proposed restaurant and is not expected to be needed on a regular basis. Based on average peak-hour drive thru queue data gathered from surrounding Cane's Restaurants during COVID, drive-thru only operations, the drive-thru queue is not anticipated to exceed a maximum of 25 cars. The peak drive-thru queue is expected to be fully contained within the Raising Cane's parcel limits and be fully managed as shown in Phase 3. Raw onsite queue counts are included in this report for reference. Given the information, phase 4 is not intended to be deployed on a regular basis. Overflow queue will stack in the drive aisle north of the proposed site and off-duty police officers or crew members will manage traffic circulation in the center. During this phase, an additional crewmember with a hand-held directional sign will be deployed at the southern drive approach on Huntington Drive to assist in directing drive-thru traffic to the northern drive entrance on Fifth Avenue. As previously noted in this report, the existing shopping center remains overparked by 76 stalls per City of Monrovia Municipal Code. Although the queue in the existing drive aisle may block up to 14 parking spaces along the Western side of the site, these spaces are set aside from the main parking area of the center and the parking lot will still have adequate capacity for costumers. The over-flow queue

will not have any negative impacts to costumers' access to the surrounding tenants and will not impeded or block the existing center's fire access lane. Refer to Exhibit E.

- Queuing Capacity: 35 vehicles
- Crewmember deployment would remain as described in Phase 3
- An off-duty police officer or crew member will be deployed and staged at the existing drive aisle north of the proposed Raising Cane's parcel to control traffic and prevent patrons from queuing in the main drive aisle of the existing center. The goal would be to hold queue back until there was sufficient queue capacity available onsite.
- An off-duty police office or crew member will be staged at the northern most drive approach on Fifth Avenue to ensure that queue does not encroach onto the public right-of-way or impede on pedestrian access/safety. They would also help manage conflicts with potential vehicles parked in the adjacent stalls.
- Mobile orders will continue to be encouraged to use the designated mobile order pickup stalls or additional available parking while the third lane is in operation for drive-through customers
- Tailgate orders, or large, part-sized orders, will not be permitted for drive-through customers.
- On-site security will be employed to help prevent loitering and increase safety for customers and Crewmembers.
- When this phase is anticipated to be deployed, Raising Cane's staff will be encouraged to park in spaces north of the restaurant that will be blocked by queue during this phase. See Exhibit E.
- Permanent sign reading "No Drive-Thru Access" will be placed at the Huntington Drive entrance to direct all drive-thru traffic to the Fifth Avenue entrance. This is intended to mitigate drive-thru traffic through the existing center's parking lot.
- Additional crew member will be deployed at Huntington Drive entrance with additional, hand-held sign directing drive thru customers to the entrance on Fifth Avenue during peak hour phases.

IMPLEMENTATION

As a part of Crewmember and Restaurant Operator training, this TMP shall be incorporated into their Crewmember training materials. The Restaurant Manager and Area Manager shall be prepared to implement the mechanisms laid out by this TMP. This TMP is subject to change by Raising Cane's as needed once full operations and circulation are understood. Contacts for Restaurant Manager and Area Manager for the implementation of this TMP are as follows:

Name	Title	Phone Number	Email Address
Restaurant Manager 1			
Area Manager			
DRSO			

Should there be any questions regarding the implementation of this TMP, please reach out to the contacts listed above.

TABLE 1

SUMMARY OF DRIVE-THROUGH QUEUING DATA COLLECTION
RAISING CANE'S - TYPICAL WEEKDAY
AVERAGE, 85TH PERCENTILE, AND PEAK QUEUES

Time Period	Number of Drive-through Vehicles in the Queue								
	Average Queue			85th %-ile [1] Queue			Peak Queue		
	Orange	Huntington Beach	Foothill Ranch	Orange	Huntington Beach	Foothill Ranch	Orange	Huntington Beach	Foothill Ranch
Lunch									
11:00-11:15 AM	6.4	1.7	1.1	8.0	3.0	2.0	8	3	3
11:15-11:30 AM	6.6	3.8	2.3	8.0	5.0	4.0	9	6	5
11:30-11:45 AM	5.0	3.4	4.0	5.5	4.2	4.0	7	7	6
11:45-12:00 PM	2.6	4.4	6.5	4.0	6.0	9.0	4	7	10
12:00-12:15 PM	6.4	5.0	4.3	7.5	7.0	6.0	8	8	7
12:15-12:30 PM	6.5	8.5	7.0	8.0	12.0	8.0	9	14	9
12:30-12:45 PM	4.8	4.9	7.3	8.2	7.2	9.0	9	9	10
12:45-1:00 PM	10.1	3.4	5.3	11.0	5.0	6.0	12	6	7
1:00-1:15 PM	7.0	7.9	4.2	9.0	10.0	10.0	9	11	7
1:15-1:30 PM	2.5	4.1	6.9	5.0	6.0	10.0	5	6	11
1:30-1:45 PM	4.4	5.1	8.3	6.7	7.0	10.0	7	9	11
1:45-2:00 PM	4.8	3.6	2.9	6.0	5.0	4.0	8	6	4
Highest Value	10.1	8.5	8.3	11.0	12.0	10.0	12	14	11
Dinner									
4:00-4:15 PM	1.5	4.8	2.5	2.3	6.0	3.0	3	7	5
4:15-4:30 PM	6.1	2.2	1.8	8.0	3.5	2.0	8	5	3
4:30-4:45 PM	8.0	2.6	2.5	9.3	5.0	4.0	10	6	5
4:45-5:00 PM	7.0	6.7	2.8	9.3	8.0	4.0	10	10	5
5:00-5:15 PM	6.0	4.7	3.5	7.0	6.2	5.0	8	7	5
5:15-5:30 PM	10.3	7.9	5.0	11.1	11.3	6.9	12	14	8
5:30-5:45 PM	9.4	14.1	10.7	11.0	16.2	14.9	11	18	16
5:45-6:00 PM	2.0	8.9	15.1	3.3	11.0	16.9	4	12	17
6:00-6:15 PM	7.8	8.0	15.8	10.8	11.0	17.0	12	12	19
6:15-6:30 PM	9.9	7.8	15.7	11.4	10.2	17.0	15	13	17
6:30-6:45 PM	13.2	10.5	15.5	14.3	12.0	18.0	15	14	21
6:45-7:00 PM	14.5	10.9	6.9	15.3	13.0	8.9	16	14	11
Highest Value	14.5	14.1	15.8	15.3	16.2	18.0	16	18	21

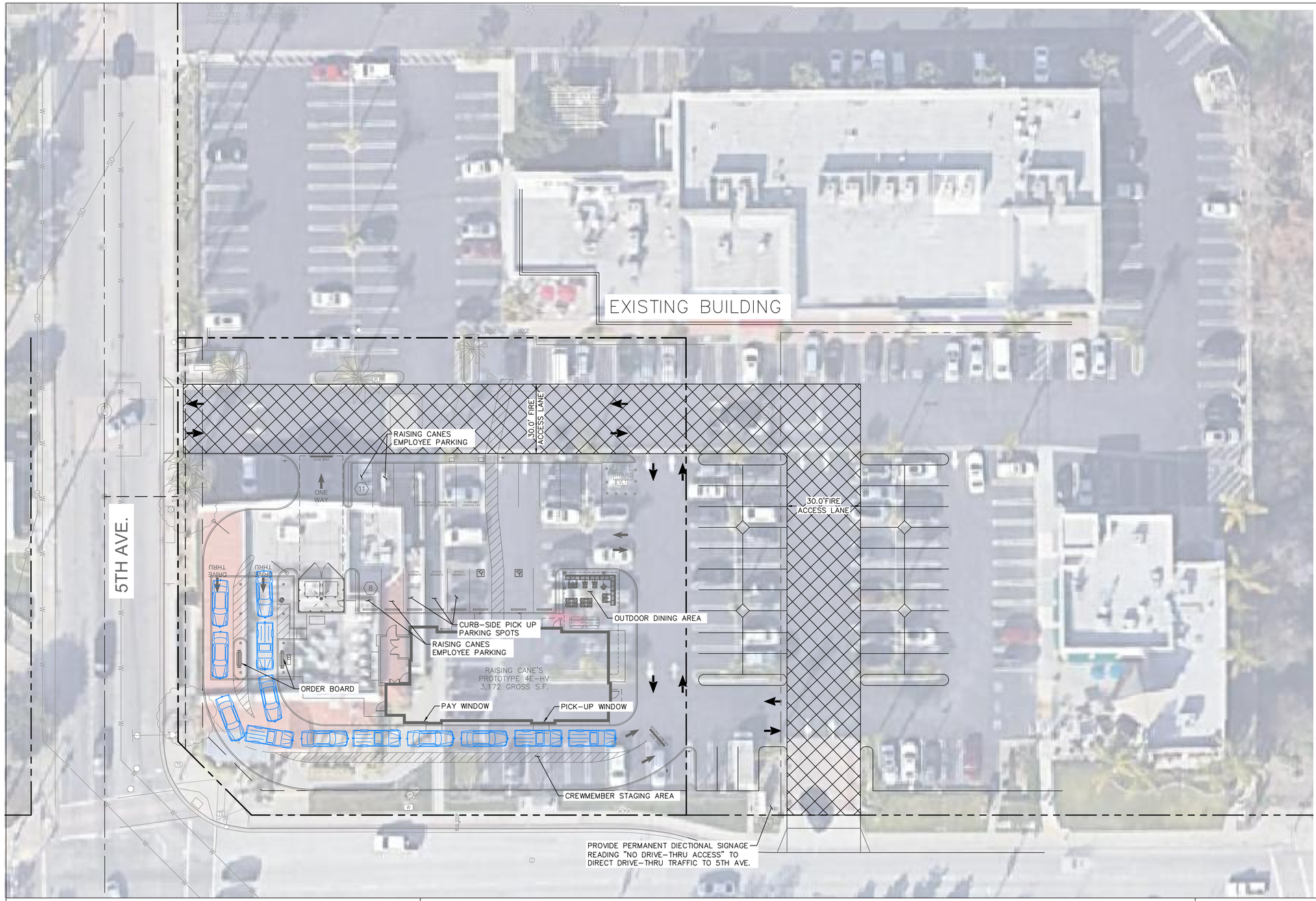
Notes: [1] 85th percentile = The queue will be less than the queue shown 85% of the time.

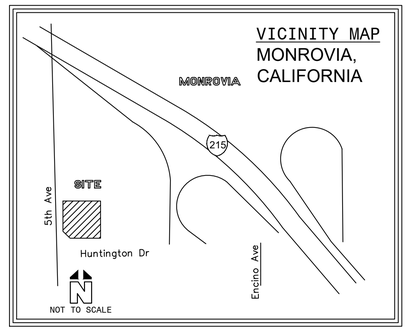
TABLE 2

SUMMARY OF DRIVE-THROUGH QUEUING DATA COLLECTION
RAISING CANE'S - SATURDAY
AVERAGE, 85TH PERCENTILE, AND PEAK QUEUES

Time Period	Number of Drive-through Vehicles in the Queue								
	Average Queue			85th %-ile [1] Queue			Peak Queue		
	Orange	Huntington Beach	Foothill Ranch	Orange	Huntington Beach	Foothill Ranch	Orange	Huntington Beach	Foothill Ranch
Lunch									
11:00-11:15 AM	3.3	0.9	2.3	4.0	1.1	3.9	4	2	4
11:15-11:30 AM	5.0	2.6	4.9	7.0	3.0	8.0	7	4	8
11:30-11:45 AM	2.1	1.8	8.7	3.0	3.6	11.0	4	4	12
11:45-12:00 PM	4.6	5.1	7.7	5.2	8.0	8.0	7	9	10
12:00-12:15 PM	7.7	9.2	11.5	9.0	10.0	14.0	10	10	15
12:15-12:30 PM	8.3	8.5	12.4	9.0	10.0	14.9	11	11	16
12:30-12:45 PM	6.9	5.4	12.8	8.0	6.6	14.0	8	9	15
12:45-1:00 PM	9.4	13.6	14.8	11.3	16.8	16.9	14	18	18
1:00-1:15 PM	13.8	13.7	16.1	16.7	16.0	20.0	18	16	19
1:15-1:30 PM	17.5	9.7	19.6	18.0	11.0	22.0	18	12	23
1:30-1:45 PM	15.3	7.2	15.5	17.1	8.0	16.9	18	9	19
1:45-2:00 PM	16.3	7.7	16.1	19.0	10.0	18.0	19	11	19
Highest Value	17.5	13.7	19.6	19.0	16.8	22.0	19	18	23
Dinner									
4:00-4:15 PM	14.7	7.3	2.7	17.8	10.0	4.0	20	11	6
4:15-4:30 PM	20.5	3.3	6.1	20.9	4.0	7.0	21	5	8
4:30-4:45 PM	18.7	2.6	7.5	19.0	4.0	9.0	19	7	10
4:45-5:00 PM	21.3	4.1	9.6	21.7	5.0	11.0	22	6	12
5:00-5:15 PM	21.0	6.4	14.3	22.8	9.3	17.0	24	10	18
5:15-5:30 PM	23.3	6.5	20.3	24.1	9.0	21.9	25	10	23
5:30-5:45 PM	23.0	10.6	16.4	23.7	13.0	19.9	24	15	20
5:45-6:00 PM	20.8	6.3	15.9	22.1	8.5	17.0	23	11	19
6:00-6:15 PM	23.3	7.5	15.1	24.4	11.0	17.9	25	12	19
6:15-6:30 PM	21.5	9.8	16.5	21.9	12.2	17.9	22	15	18
6:30-6:45 PM	21.3	14.4	16.5	21.7	16.0	18.0	22	18	18
6:45-7:00 PM	21.8	15.3	17.0	22.6	17.0	18.0	23	19	18
Highest Value	23.3	15.3	20.3	24.4	17.0	21.9	25	19	23

Notes: [1] 85th percentile = The queue will be less than the queue shown 85% of the time.





LEGEND

FIRE ACCESS LANE TO REMAIN CLEAR OF DRIVE THRU QUEUE

13 CARS

N

EXHIBIT A
STANDARD DRIVE THRU OPERATIONS

RC0685 HUNTINGTON AND FIFTH, MONROVIA, CA

09/30/2021

Raising Cane's Chicken Fingers

EXISTING BUILDING

30.0' FIRE ACCESS LANE

RAISING CANES EMPLOYEE PARKING

HANDHELD (TABLET) ORDERING DEPLOYMENT

HANDHELD (TABLET) ORDERING DEPLOYMENT

5TH AVE.

CREWMEMBER HANDHELD STAGING AREA

CREWMEMBER HANDHELD STAGING AREA

CURB-SIDE PICK UP PARKING SPOTS

RAISING CANES EMPLOYEE PARKING

OUTDOOR DINING AREA

RAISING CANE'S PROTOTYPE 4E-HV 3,172 GROSS S.F.

ORDER BOARD

PAY WINDOW

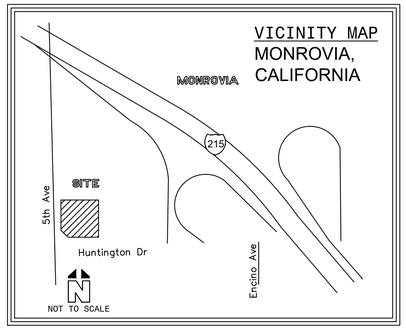
PICK-UP WINDOW

CREWMEMBER STAGING AREA

30.0'FIRE ACCESS LANE

PROVIDE PERMANENT DIECTIONAL SIGNAGE READING "NO DRIVE-THRU ACCESS" TO DIRECT DRIVE-THRU TRAFFIC TO 5TH AVE.

VICINITY MAP
MONROVIA, CALIFORNIA



LEGEND

FIRE ACCESS LANE TO REMAIN CLEAR OF DRIVE THRU QUEUE

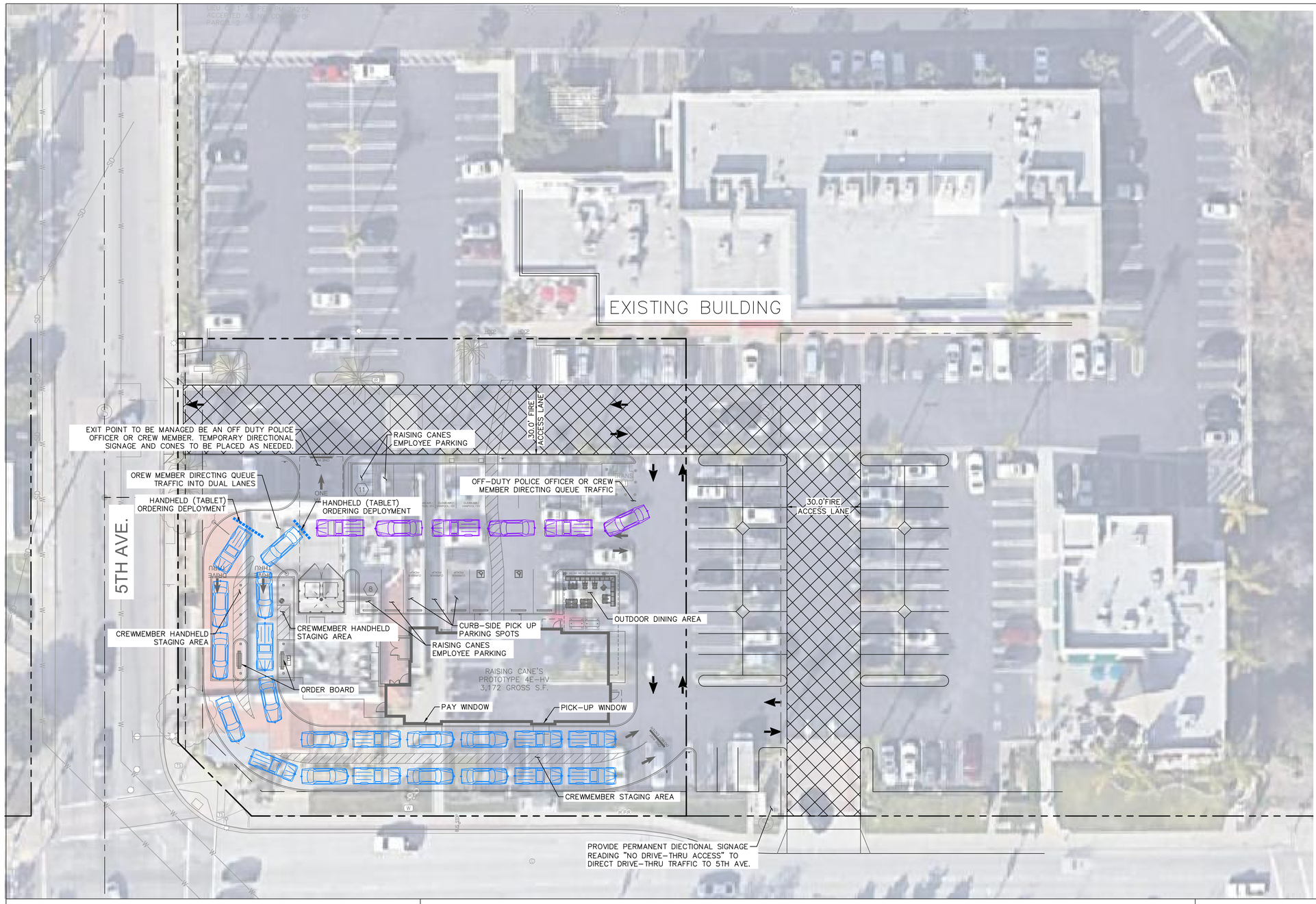
21 CARS

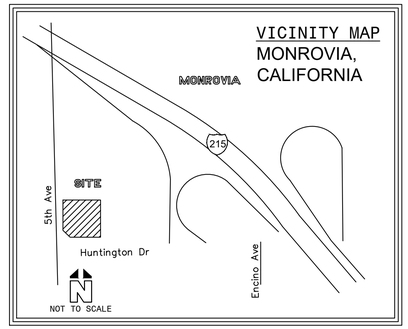
N

EXHIBIT B
PHASE 1 - TRAFFIC MANAGEMENT PLAN

RC0685 HUNTINGTON AND FIFTH, MONROVIA, CA

09/30/2021





LEGEND

FIRE ACCESS LANE TO REMAIN CLEAR OF DRIVE THRU QUEUE

21 CARS

6 CARS

27 CARS

N

EXHIBIT C
PHASE 2 - TRAFFIC MANAGEMENT PLAN

RC0685 HUNTINGTON AND FIFTH, MONROVIA, CA

09/30/2021

EXISTING BUILDING

EXIT POINT TO BE MANAGED BE AN OFF DUTY POLICE OFFICER OR CREW MEMBER. TEMPORARY DIRECTIONAL SIGNAGE AND CONES TO BE PLACED AS NEEDED.

RAISING CANES EMPLOYEE PARKING

30.0' FIRE ACCESS LANE

OREW MEMBER DIRECTING QUEUE TRAFFIC INTO DUAL LANES

HANDHELD (TABLET) ORDERING DEPLOYMENT

HANDHELD (TABLET) ORDERING DEPLOYMENT

OFF-DUTY POLICE OFFICER OR CREW MEMBER DIRECTING QUEUE TRAFFIC

30.0'FIRE ACCESS LANE

5TH AVE.

CREWMEMBER HANDHELD STAGING AREA

CREWMEMBER HANDHELD STAGING AREA

CURB-SIDE PICK UP PARKING SPOTS

RAISING CANES EMPLOYEE PARKING

OUTDOOR DINING AREA

RAISING CANE'S PROTOTYPE 4E-HV 3,172 GROSS S.F.

ORDER BOARD

PAY WINDOW

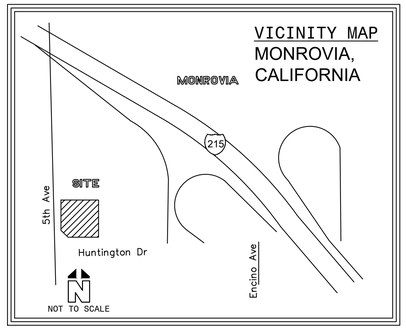
PICK-UP WINDOW

CREWMEMBER STAGING AREA

CREW MEMBER WITH ADDIITONAL SIGN TO DIRECT TRAFFIC TO FIFTH AVENUE DRIVE APPROACH DURING PEAK HOURS

PROVIDE PERMANENT DIECTIONAL SIGNAGE READING "NO DRIVE-THRU ACCESS" TO DIRECT DRIVE-THRU TRAFFIC TO 5TH AVE.

VICINITY MAP
MONROVIA, CALIFORNIA



LEGEND

FIRE ACCESS LANE TO REMAIN CLEAR OF DRIVE THRU QUEUE

21 CARS

6 CARS

2 CARS

29 CARS

N

EXHIBIT D
PHASE 3 - TRAFFIC MANAGEMENT PLAN

RC0685 HUNTINGTON AND FIFTH, MONROVIA, CA

09/30/2021

OFF-DUTY POLICE OFFICER OR CREW MEMBER TO MONITOR DRIVE APPROACH AND ENSURE ADEQUATE TRAFFIC CIRCULATION

RAISING CANES CREWMEMBER PARKNG

EXISTING BUILDING

OFF-DUTY POLICE OFFICER OR CREW MEMBER TO MONITOR TRAFFIC AND ENSURE DRIVE AISLE REMAINS OPEN TO THRU-TRAFFIC

EXIT POINT TO BE MANAGED BE AN OFF DUTY POLICE OFFICER OR CREW MEMBER. TEMPORARY DIRECTIONAL SIGNAGE AND CONES TO BE PLACED AS NEEDED.

30.0' FIRE ACCESS LANE

RAISING CANES EMPLOYEE PARKING

OREW MEMBER DIRECTING QUEUE TRAFFIC INTO DUAL LANES

HANDHELD (TABLET) ORDERING DEPLOYMENT

OFF-DUTY POLICE OFFICER OR CREW MEMBER DIRECTING QUEUE TRAFFIC

30.0'FIRE ACCESS LANE

5TH AVE.

HANDHELD (TABLET) ORDERING DEPLOYMENT

CREWMEMBER HANDHELD STAGING AREA

CREWMEMBER HANDHELD STAGING AREA

CURB-SIDE PICK UP PARKING SPOTS

RAISING CANES EMPLOYEE PARKING

OUTDOOR DINING AREA

RAISING CANE'S PROTOTYPE 4E-HV 3,172 GROSS S.F.

ORDER BOARD

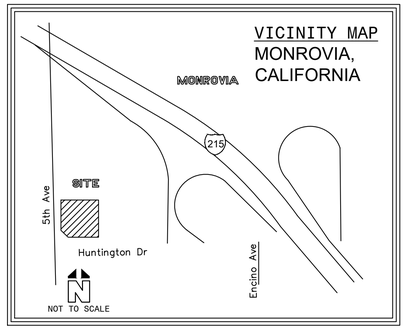
PAY WINDOW

PICK-UP WINDOW

CREWMEMBER STAGING AREA

CREW MEMBER WITH ADDIITONAL SIGN TO DIRECT TRAFFIC TO FIFTH AVENUE DRIVE APPROACH DURING PEAK HOURS

PROVIDE PERMANENT DIECTIONAL SIGNAGE READING "NO DRIVE-THRU ACCESS" TO DIRECT DRIVE-THRU TRAFFIC TO 5TH AVE.



VICINITY MAP
MONROVIA, CALIFORNIA

LEGEND

	FIRE ACCESS LANE TO REMAIN CLEAR OF DRIVE THRU QUEUE
	21 CARS
	6 CARS
	2 CARS
	6 CARS
	35 CARS

N

EXHIBIT E
PHASE 4 - TRAFFIC MANAGEMENT PLAN

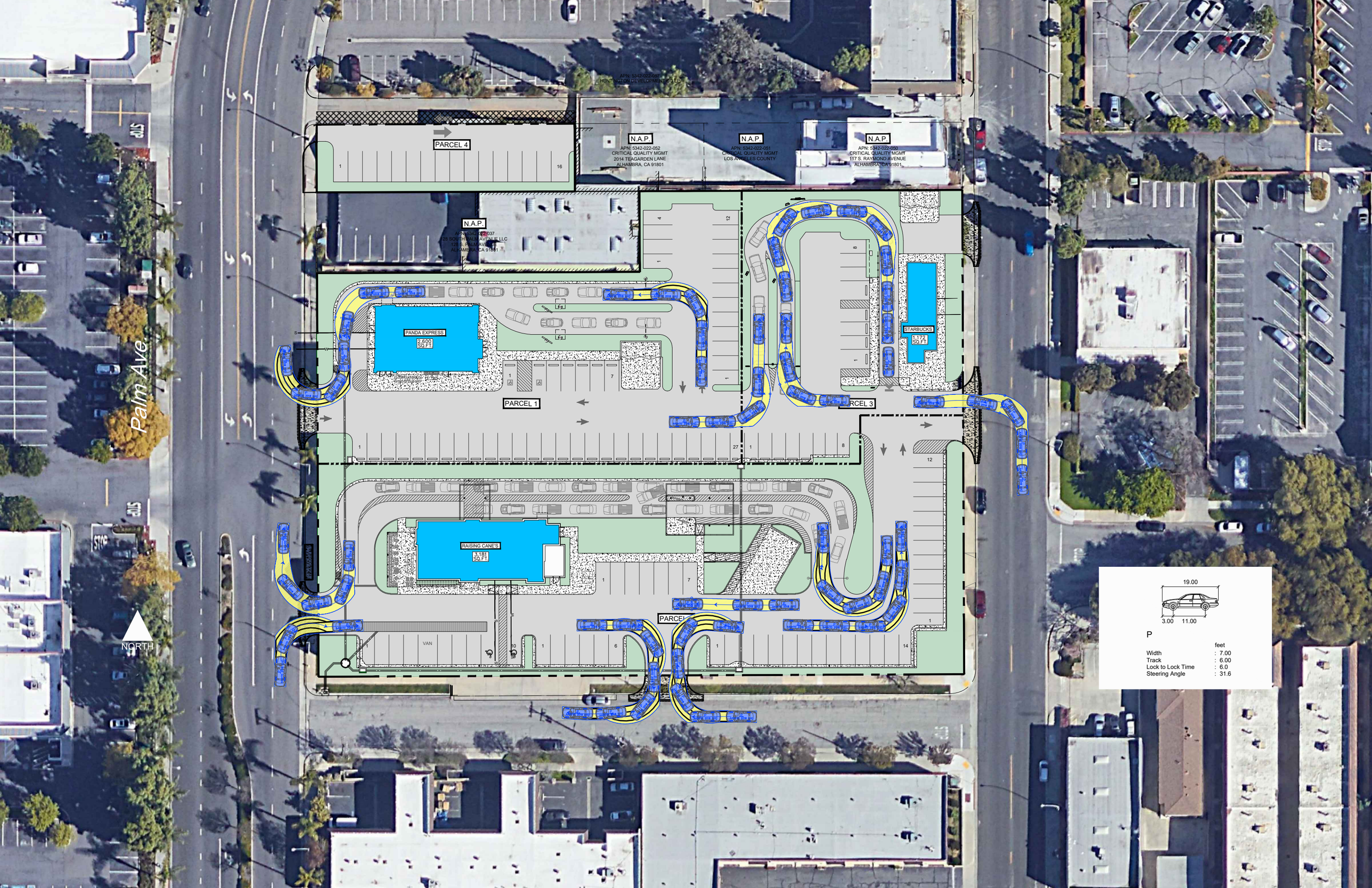
RC0685 HUNTINGTON AND FIFTH, MONROVIA, CA

09/30/2021

Raising Cane's Chicken Fingers

APPENDIX H

PROJECT ON-SITE CIRCULATION ANALYSIS
VEHICLE SWEPT PATH DIAGRAMS


PARCEL 4
N.A.P.
APN: 5342-022-052
CRITICAL QUALITY MGMT
2014 TEAGARDEN LANE
ALHAMBRA, CA 91801
N.A.P.
APN: 5342-022-051
CRITICAL QUALITY MGMT
LOS ANGELES COUNTY
N.A.P.
APN: 5342-022-050
CRITICAL QUALITY MGMT
117 S. RAYMOND AVENUE
ALHAMBRA, CA 91801
N.A.P.
APN: 5342-022-037
128 SOUTH PALM AVENUE LLC
128 S. PALM AVENUE
ALHAMBRA, CA 91801
PANDA EXPRESS
2,600 SQ.FT.
STARBUCKS
1,172 SQ.FT.
RAISING CANE'S
3,181 SQ.FT.
PARCEL 1
PARCEL 3
VAN
Palm Ave.
NORTH
19.00
3.00
11.00
P
feet
Width : 7.00
Track : 6.00
Lock to Lock Time : 6.0
Steering Angle : 31.6

APN: 5342-022-037
HUNTINGTON DEVELOPMENT GROUP

PARCEL 4

N.A.P.
APN: 5342-022-052
CRITICAL QUALITY MGMT
2014 TEAGARDEN LANE
ALHAMBRA, CA 91801

N.A.P.
APN: 5342-022-051
CRITICAL QUALITY MGMT
LOS ANGELES COUNTY

N.A.P.
APN: 5342-022-050
CRITICAL QUALITY MGMT
117 S. RAYMOND AVENUE
ALHAMBRA, CA 91801

N.A.P.
APN: 5342-022-037
128 SOUTH HILL AVENUE LLC
128 S. PALM AVENUE
ALHAMBRA, CA 91801

PANDA EXPRESS
2,600
SQ.FT.

STARBUCKS
1,172
SQ.FT.

PARCEL 1

PARCEL 3

RAISING CANE'S
3,181
SQ.FT.

PARCEL 2

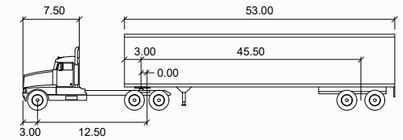
Cane's Delivery Truck
Custom

VAN

Palm Ave

STOP

NORTH



Cane's Delivery Truck

feet

Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 17.7
Tractor Track	: 8.00	Articulating Angle	: 70.0
Trailer Track	: 8.50		

APPENDIX I

DRAFT RESPONSES TO TRAFFIC COMMENTS ON THE FOCUSED TRAFFIC ANALYSIS DATED AUGUST 21, 2023

A LOCHNER COMPANY
300 Corporate Pointe, Suite 470, Culver City, CA 90230
T: (310) 473-6508 | F: (310) 444-9771 | www.koacorp.com
MONTEREY PARK ORANGE ONTARIO SAN DIEGO CULVER CITY

PALM & PEPPER COMMERCIAL PROJECT
CITY OF ALHAMBRA
DRAFT RESPONSES TO TRAFFIC COMMENTS ON THE FOCUSED TRAFFIC ANALYSIS

TRAFFIC COMMENTS ON FOCUSED TRAFFIC ANALYSIS

Jana Robbins, PTP, RSP
Director of Traffic Engineering and Transportation Planning
Transtech
13367 Benson Avenue
Chino, CA 91710

TRAFFIC COMMENT 1

Please show the proposed walking path for employees parking in the Teagarden spaces.

RESPONSE TO TRAFFIC COMMENT 1

Based on feedback from and discussions with City of Alhambra ("City") staff and the City Transportation Consultant (CTC), the proposed Palm & Pepper commercial project (the "Project") site plan has been revised. As part of those revisions, the ADA path of travel has been added for the Parcel 4 (former Teagarden Lane) employee parking lot, as well as for the two fast-food restaurants with drive-through windows and one coffee shop with drive-through window on the main site (Parcels 1, 2, and 3). The revised site plan is included as ***Attachment A*** to this technical memorandum.

TRAFFIC COMMENT 2

Please explain what is meant by Teagarden will be fully vacated. Will other existing use still have access from this driveway?

RESPONSE TO TRAFFIC COMMENT 2

Teagarden Lane, as recently as 2018, functioned as an alley connecting Palm Avenue and Raymond Avenue. However, in 2019, Teagarden Lane was partially vacated to allow for the construction of an office building at 117 S. Raymond Avenue. Since that time, Teagarden Lane has functioned as a dead-end alley with access only from Palm Avenue. In conjunction with the Project, the remaining portion of Teagarden Lane will be vacated and converted into a 12-space employee parking lot.

TRAFFIC COMMENT 3

Exit and Entrance from all project driveways should show full project trips including pass-by. These are the vehicles actually entering and exiting the project driveways to either continue on their primary trip or eat and go back home or school, or to work. This affects the stacking on Palm Avenue and Raymond Avenue.

RESPONSE TO TRAFFIC COMMENT 3

The Project traffic volume figures have been updated to provide the requested information, and they can be found in

Attachment B to this technical memorandum. In order to provide a complete illustration of Project traffic volumes at the Project driveways and study intersections, the following figures have been included in ***Attachment B***:

- Figure 1 – Proposed Project Trip Distribution Percentages (Non-Pass-By)
- Figure 2 – Proposed Project Traffic Volumes (Non-Pass-By), Weekday AM Peak Hour
- Figure 3 – Proposed Project Traffic Volumes (Non-Pass-By), Weekday PM Peak Hour
- Figure 4 – Proposed Project Pass-By Trip Distribution Percentages, Weekday AM Peak Hour
- Figure 5 – Proposed Project Traffic Volume (Pass-By), Weekday AM Peak Hour
- Figure 6 – Proposed Project Pass-By Trip Distribution Percentages, Weekday PM Peak Hour
- Figure 7 – Proposed Project Traffic Volumes (Pass-By), Weekday PM Peak Hour
- Figure 8 – Existing Use Trip Distribution Percentages
- Figure 9 – Existing Use Traffic Volumes, Weekday AM Peak Hour
- Figure 10 – Existing Use Traffic Volumes, Weekday PM Peak Hour
- Figure 11 – Net Project Traffic Volumes, Weekday AM Peak Hour
- Figure 12 – Net Project Traffic Volumes, Weekday PM Peak Hour

The proposed Project trip distribution percentages (non-pass-by) in Figure 1 were applied to the non-pass-by trips forecast for the proposed uses to develop the proposed Project traffic volumes (non-pass-by) for the weekday AM and PM peak hours in Figures 2 and 3, respectively. For the proposed Project's pass-by trips, the weekday AM and PM peak-hour trip distribution patterns developed in Figures 4 and 6 were based on the northbound and southbound traffic passing by the site on Palm Avenue and Raymond Avenue. Therefore, the proposed Project's pass-by trip distribution percentages differed based on peak hour. The weekday AM and PM peak-hour pass-by trip distribution percentages were applied to the pass-by trips anticipated for the proposed uses to develop the proposed Project's traffic volumes (pass-by) shown in Figures 5 and 7, respectively. The existing use trip distribution percentages (Figure 8) were applied to the trips forecast for the existing use to develop existing use traffic volumes for the weekday AM and PM peak hours in Figures 9 and 10, respectively. The Figure 11 net Project traffic volumes for the weekday AM peak hour were determined by summing the traffic volumes from Figures 2 and 5 and deducting the volumes from Figure 9. The Figure 12 net Project traffic volumes for the PM peak hour were calculated by summing the traffic volumes from Figure 3 and 7 and subtracting the volumes from Figure 10.

TRAFFIC COMMENT 4

Will Employees from all 3 food establishments park in spaces in parcel 4?

RESPONSE TO TRAFFIC COMMENT 4

Yes. Employees from all three proposed restaurants will be allowed to park within the employee parking lot on Parcel 4. In addition, employees of all three proposed restaurants will park within the surface lots on Parcels 1, 2, and 3. As shown in ***Attachment A***, the Project will provide 121 automobile parking spaces across its four parcels. This overall parking supply is more than double the off-street parking requirement for the three proposed restaurants, based on the City's Municipal Code § 23.52.040. Further, the automobile parking supply proposed for each restaurant/parcel will exceed its associated City Municipal Code requirement, as shown in ***Table 1***. Parcel 1 will include 44 automobile parking spaces, and the proposed Panda Express restaurant with drive-through window requires 22 parking spaces. Parcel 2 will contain 49 automobile parking spaces, and the proposed Raising Cane's with drive-through window requires 27 parking spaces. Finally, Parcel 3 will provide 16 automobile parking spaces, and the proposed Starbucks coffee shop with drive-through window requires 10 parking spaces. Given that the City's Municipal Code off-street parking requirement addresses the parking demands of both customers and employees, the proposed parking supply is expected to satisfy the Project's parking demands without causing adverse spillover effects to neighboring roadways.

Table 1: Project Automobile Parking Requirement and Supply

Restaurant	Gross Floor Area (sf)	Required Parking[1]	Provided Parking
Panda Express / Parcel 1	2,600	22	44
Raising Cane's / Parcel 2	3,181	27	49
Starbucks / Parcel 3	1,172	10	16
Employee Parking / Parcel 4	--	--	12
Total	*6,953*	*59*	*121*
Notes: [1] Per the City of Alhambra Municipal Code Section 23.52.040.			

TRAFFIC COMMENT 5

What are the parking assumptions for employees. Are there designated spaces employees are asked to park?

RESPONSE TO TRAFFIC COMMENT 5

Please see Response to Traffic Comment 4 regarding the parking assumptions for employees. While the automobile parking provided in the employee parking lot on Parcel 4 will be designated for employees only, no parking spaces on the remainder of the site (Parcels 1, 2, and 3) will be reserved for employees.

TRAFFIC COMMENT 6

Palm Avenue: While traffic impacts appear to be minimal, the main driveway on Palm Avenue and the Palm Avenue at Teagarden Lane will increase the conflict between vehicles entering and exiting the Costco Center. After discussions with City Engineering and Public Works, the main driveway and the Teagarden driveway to the site (northern and middle driveways) on Palm Avenue will need to be restricted to right turn in, right turn out and left-turn in. No left-turn-out will be allowed. For project traffic from the main site to continue to the south they will need to exit out of the Raymond Avenue or Pepper Street Driveways to proceed south. Appropriate signing and arrows shall be placed at the driveways to restrict the left-out movement. A pork shop island shall be constructed on the driveways to restrict exiting vehicles to right turn-only. The driveways may need to be widened to accommodate the construction of the small island at the driveway. The layout and the design of the pork chop islands shall be reviewed and approved to the satisfaction of the City.

RESPONSE TO TRAFFIC COMMENT 6

The Project team has redesigned the site to provide the pork chop islands requested at two of the Project driveways along Palm Avenue (the Main Driveway and North Driveway serving Parcels 3 and 4, respectively). The Project team worked closely with the CTC, Public Works Department, and Fire Department to address design concerns related to the pork chop islands, drive aisle widths, corner radii, etc. The resulting site plan, conceptually approved by the City, is provided in ***Attachment A***. The proposed striping and signage modifications for Palm Avenue are depicted in ***Attachment C***.

TRAFFIC COMMENT 7

Page 12: the text indicates that peak hour counts were taken at the Costco Driveway and Palm Avenue and Palm Avenue and Pepper Street would be shown in Figures 4a and 4b. This information is not shown on these figures.

RESPONSE TO TRAFFIC COMMENT 7

The text in Section 5.2 Existing (2022) Traffic Conditions describes all of the traffic counts data that were collected for the Project's December 2, 2022 Focused Traffic Analysis (FTA). Traffic counts were conducted at the study intersections of Palm Avenue & Commonwealth Avenue and Raymond Avenue & Commonwealth Avenue during the weekday AM and PM peak hours as part of the intersection Level of Service (LOS) analysis (Section 5). Traffic counts were conducted at the intersections of Palm Avenue & Teagarden Lane, Palm Avenue & Costco Driveway, and Palm Avenue & Pepper Street

during the PM peak hour only to inform the microsimulation analysis performed along Palm Avenue as part of the driveway access analysis (Section 7). Figures 4(a) and 4(b) present the weekday peak-hour volumes for the study intersections only, related to the intersection LOS analysis, which is why they display volumes for only the two study intersections.

TRAFFIC COMMENT 8

Table 5: Column headers need to be revised to make one column PM peak. Both say AM peak.

RESPONSE TO TRAFFIC COMMENT 8

The column headers for the Project weekday trip generation summary have been revised, as shown in ***Table 2*** below.

Table 2: Project Weekday Trip Generation Summary[1]

Land Use/Trip Type	ITE Code	Intensity[2]	Average Weekday	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Generation Rates									
Warehousing/Vehicle	150	1 ksf	1.71	77%	23%	0.17	28%	72%	0.18
Fine Dining Restaurant/Vehicle	931	1 ksf	83.84	NA	NA	0.73	67%	33%	7.80
Fast-Food Restaurant with Drive-Through Window/Vehicle	934	1 ksf	467.48	51%	49%	44.61	52%	48%	33.03
Coffee/Donut Shop with Drive-Through Window and No Indoor Seating/Vehicle	938	1 dtl	179.00	50%	50%	39.81	50%	50%	15.08
Trip Generation Summary									
Description		**Size**	**Average Weekday**	**AM Peak Hour**			**PM Peak Hour**		
				In	**Out**	**Total**	**In**	**Out**	**Total**
Proposed Uses									
Restaurant									
Fast-Food Restaurant with Drive-Through Window Baseline Vehicle Trips[3]		2.600 ksf	1,215	4	4	8	45	41	86
Pass-By Adjustment[4]			(607)	0	0	0	(25)	(22)	(47)
Fast-Food Restaurant with Drive-Through Window Total			608	4	4	8	20	19	39
Fast-Food Restaurant with Drive-Through Window Baseline Vehicle Trips[3]		3.181 ksf	1,487	5	5	10	55	50	105
Pass-By Adjustment[4]			(743)	0	0	0	(30)	(28)	(58)
Fast-Food Restaurant with Drive-Through Window Total			744	5	5	10	25	22	47
Coffee/Donut Shop with Drive-Through Window and No Indoor Seating Vehicle Trips		2 dtl	358	40	40	80	15	15	30
Pass-By Adjustment[5]			(322)	(36)	(36)	(72)	(15)	(14)	(29)
Coffee/Donut Shop with Drive-Through Window and No Indoor Seating Total			36	4	4	8	0	1	1
Proposed Project Total External Trips by Vehicle (incl. Pass-By Trips)			**3,060**	**49**	**49**	**98**	**115**	**106**	**221**
Proposed Project Total External Project Trips by Vehicle			**1,388**	**13**	**13**	**26**	**45**	**42**	**87**
Existing Use									
Industrial									
Warehouse Vehicle Trips		10.000 ksf	17	2	0	2	1	1	2
Pass-By Adjustment[6]			0	0	0	0	0	0	0
Warehouse Total			17	2	0	2	1	1	2
Existing Project Driveway Trips (incl. Pass-By Trips)			**17**	**2**	**0**	**2**	**1**	**1**	**2**
Existing Project Trips			**17**	**2**	**0**	**2**	**1**	**1**	**2**
Net Project Driveway Trips (including Pass-By Trips)			**3,043**	**47**	**49**	**96**	**114**	**105**	**219**
Net Project Trips			**1,371**	**11**	**13**	**24**	**44**	**41**	**85**

Notes:

[1] ITE *Trip Generation Manual* (11th Edition, 2021) trip generation rates and directional distributions were applied for Land Use Code 150 (Warehousing), Land Use Code 934 (Fast-Food Restaurant with Drive-Through Window), and Land Use Code 938 (Coffee/Donut Shop with Drive-Through Window and No Indoor Seating) to develop baseline vehicle trip estimates for the existing and proposed land uses. The General Urban/Suburban setting was selected as most appropriate for the Project location. Transit and walk/bicycle trip adjustments were conservatively not applied to the baseline vehicle trip calculations.

[2] ksf = Thousands of Square Feet of Gross Floor Area; dtl = Number of Drive-Thru Lanes.

[3] ITE *Trip Generation Manual* (11th Edition, 2021) trip rates for Land Use Code 934 (Fast-Food Restaurant with Drive-Through Window) have been developed based on fast-food restaurants providing breakfast service. As the Project's proposed fast-food restaurants will not serve breakfast, the AM peak-hour trip rate for Land Use Code 934 is inappropriate for the proposed fast-food restaurant uses. In order to estimate the weekday AM peak-hour trip generation for these uses, the relationship between AM and PM peak-hour trip rates was reviewed for Land Use Code 931 (Fine Dining Restaurant), as this land use's trip rates are based on surveys of restaurants that generally do not serve breakfast. An AM-to-PM peak-hour factor was developed using the Fine Dining Restaurant trip generation rates and applied to the PM peak-hour trip generation rate for the Fast-Food Restaurant with Drive-Through Window uses to determine the (employee-only) AM peak-hour trip generation estimates for the proposed fast-food restaurants.

[4] Per the appendices of the ITE *Trip Generation Manual* (11th Edition, 2021), a 55 percent pass-by trip rate has been assumed for the proposed Fast-Food Restaurant use during the weekday PM peak hour. As the proposed Fast-Food Restaurant uses will not provide breakfast service, no pass-by trip reduction was applied during the AM peak hour. A daily pass-by trip rate of 50 percent was conservatively assumed.

[5] Per the appendices of the ITE *Trip Generation Manual* (11th Edition, 2021), 90 percent and 98 percent pass-by trip rates have been assumed for the proposed Coffee/Donut Shop with Drive-Through Window use during the weekday AM and PM peak hours, respectively. A daily pass-by trip rate of 90 percent was conservatively assumed.

[6] No pass-by trips were assumed for the existing warehousing land use.

TRAFFIC COMMENT 9

Full project trips at each new driveway should reflect full project volumes without pass-by reductions. AM peak: 96 (47 in/49 out) and PM peak: 219 (114 in/105 out). This volume should be reflected in Figures 5a, 6a and 6b.

RESPONSE TO TRAFFIC COMMENT 9

Please see Response to Traffic Comment 3 regarding the updated Project traffic volume figures included in ***Attachment B***. The proposed Project trip distribution percentages for non-pass-by and pass-by trips are provided, as well as the resulting weekday AM and PM peak-hour traffic volumes for each of these trip types, at all Project driveways. The existing use trip distribution percentages and weekday peak-hour traffic volumes are also provided, along with the net Project traffic volumes (proposed minus existing). The sum of the inbound and outbound vehicle trips at across all Project driveways in Figures 11 and 12 match the net Project driveway trips included in the Project trip generation table (see ***Table 2*** above) for the weekday AM and PM peak hours, respectively.

TRAFFIC COMMENT 10

Figure 6a should show project volumes at all project driveways– Starbucks main time I would think is in the AM peak. Starbucks pass-by would have 90% entering and exiting the driveways. From Table 5 there are (80) AM peak project vehicle trips. (Figure 12 only includes Palm Avenue).

RESPONSE TO TRAFFIC COMMENT 10

Please see Response to Traffic Comment 3 regarding the updated Project traffic volume figures included in ***Attachment B***. The proposed Project's pass-by trip distribution percentages differed based on peak hour, and these percentages are provided in Figures 4 and 6 for the weekday AM and PM peak hours, respectively. The proposed Project's traffic volumes (pass-by) for the weekday AM and PM peak hours are provided in Figures 5 and 7. Per ***Table 2*** above, the proposed Starbucks coffee shop with drive-through window is expected to generate 80 vehicle trips (40 inbound, 40 outbound) in the weekday AM peak hour. Of these 80 vehicle trips, approximately 90 percent or 72 vehicle trips (36 inbound, 36 outbound) would be associated with pass-by trip activity. As shown in Figure 5, the proposed Project driveways would experience 36 inbound and 36 outbound pass-by trips during the weekday AM peak hour.

TRAFFIC COMMENT 11

Figure 7a and 7b should also include the project trips entering and exiting all of the project driveways. AM peak: 96; PM peak 219 vehicle trips.

RESPONSE TO TRAFFIC COMMENT 11

Please see Response to Traffic Comment 3 regarding the updated Project traffic volume figures included in ***Attachment B***. The Project's net traffic volumes at the study intersections and all Project driveways are provided in Figures 11 and 12 for the weekday AM and PM peak hours, respectively.

TRAFFIC COMMENT 12

Table 11: it is unclear the amount of red curb that is needed to maintain minimum sight distance requirements on either side of project driveways.

RESPONSE TO TRAFFIC COMMENT 12

As described on page 42 of the December 2, 2022 FTA, for the purpose of the driveway sight distance analysis, it was assumed that red curb markings would be installed on the (sides of the) roadways adjacent to the Project site, on both sides of the proposed driveway locations. Thus, red curb is recommended along the east side of Palm Avenue from Parcel 4 to Pepper Street, along the north side of Pepper Street from Palm Avenue to Raymond Avenue, and along the west side of Raymond Avenue from Pepper Street to the 117 S. Raymond Avenue building. It should be noted that, with the

implementation of outbound left-turn restrictions at the Project's Main Driveway and North Driveway on Palm Avenue, the corner/intersection sight distance looking to the north along Palm Avenue from these driveways will no longer be a concern.

TRAFFIC COMMENT 13

The On-Site Traffic Management Plan provided for Raising Cane is accepted and should be revised and tailored for this new Alhambra site.

RESPONSE TO TRAFFIC COMMENT 13

The On-Site Traffic Management Plan (TMP) has been prepared for the proposed Project location, and it is included in ***Attachment D***. The TMP includes phased drive-through operational plans for conditions ranging from standard to special and high-volume events.

TRAFFIC COMMENT 14

Back up contingency plans or Vehicle Queue Management plans will also need to be submitted for Panda and Starbucks which will be filed with the projects CUP and with on-site management to enact when needed.

RESPONSE TO TRAFFIC COMMENT 14

Panda Express has provided their Double Lane Drive-Thru Manual (June 2023) and TMP for the proposed Project location, and both of these documents are included in ***Attachment E***. The manual provides an overview of double lane drive-through operations, required equipment, staffing levels and deployment options, peak period management recommendations, etc., while the TMP provides a depiction of drive-through vehicle queue spillover management for the Project site.

Starbucks has provided a drive-through TMP for the proposed Project location, and it is shown in ***Attachment F***. The TMP contains a business operations and overstack plan that describes how Starbucks employees will accommodate drive-through orders in the unlikely event that the drive-through vehicle queue meets or exceeds the drive-through lane capacity (17 vehicles).

TRAFFIC COMMENT 15

Truck deliveries are to be conducted off peak hours to minimize on-site circulation and parking impacts.

RESPONSE TO TRAFFIC COMMENT 15

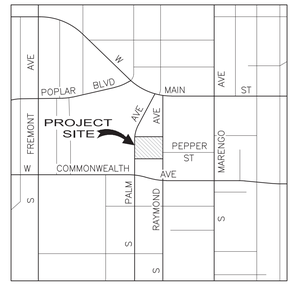
The Project applicant has agreed that heavy vehicle deliveries to the site will be conducted during off-peak hours, to the extent feasible.

ATTACHMENT A

PROJECT SITE PLAN

SITE PLAN
TENTATIVE PARCEL MAP NO. 84017

126, 132 & 146 SOUTH PALM AVENUE
127 SOUTH RAYMOND AVENUE
2018 TEAGARDEN LANE
APN: 5342-022-033, -034, -035, -036, -053 & -054
IN THE CITY OF ALHAMBRA
COUNTY OF LOS ANGELES, STATE OF CALIFORNIA



VICINITY MAP
(NO SCALE)

PROJECT SUMMARY:

OWNER:	ALHAMBRA PALM LTD 1683 WALNUT GROVE AVENUE ROSEMEAD, CA 91770
DEVELOPER:	CFT NV DEVELOPMENTS, LLC CHARLIE.SHEN@PANDARG.COM (626) 372-8122
ENGINEER:	LAND DEVELOPMENT CONSULTANTS 1520 BROOKHOLLOW DRIVE, SUITE 33 SANTA ANA, CA 92705 (714) 557-7700
PROJECT LOCATION:	126, 132 & 146 SOUTH PALM AVENUE 127 SOUTH RAYMOND AVENUE 2018 TEAGARDEN LANE ALHAMBRA, CA 91801
APNs:	5342-022-033, -034, -035, -036, -053 & -054

PROJECT SITE AREA:	117,996 SF = 2.709 ACRES
STREET DEDICATION AREAS:	140 SF = 0.003 ACRES
PROJECT SITE AREA (AFTER STREET DEDICATIONS):	117,856 SF = 2.706 ACRES
PARCEL 1 AREA: (PANDA EXPRESS)	34,933 SF = 0.802 ACRES
PARCEL 2 AREA: (RAISING CANE'S)	53,550 SF = 1.229 ACRES
PARCEL 3 AREA: (STARBUCKS)	21,377 SF = 0.491 ACRES
PARCEL 4 AREA: (EMPLOYEE PARKING)	7,996 SF = 0.184 ACRES

PARCEL 1 PARKING:
REQUIRED: 22 SPACES (1 SPACE / 120 SF)
PROVIDED: 44 SPACES

PARCEL 2 PARKING:
REQUIRED: 27 SPACES (1 SPACE / 120 SF)
PROVIDED: 49 SPACES

PARCEL 3 PARKING:
REQUIRED: 10 SPACES (1 SPACE / 120 SF)
PROVIDED: 13 SPACES (STANDARD)
PROVIDED: 3 SPACES (COMPACT)

PARCEL 4 PARKING:
PROVIDED: 12 SPACES

PROPOSED PARCEL LINE
PROPOSED CONCRETE
PROPOSED ASPHALT
PROPOSED LANDSCAPE
AREA TO BE VACATED
PROPOSED SEWER
PROPOSED WATER
ADA PATH OF TRAVEL

SCALE: 1"=20'

LEGEND:

AC	ASPHALT PAVEMENT	GB	GRADE BREAK	TX	TOP OF X
AV	AIR VENT	GI	GRATE INLET	UB	UTILITY BOX
BFD	BACK FLOW DEVICE	GM	GAS METER	WM	WATER METER
BW	BACK OF WALK	GP	GUARD POST	WV	WATER VALVE
BX	BOTTOM OF X	GV	GAS VALVE		FIRE HYDRANT
CB	CATCH BASIN	L	LOT LINE		EDGE PAVEMENT
CO	CLEAN OUT	PA	PLANTER AREA		WATER VALVE
DN	DRAIN	PB	PULL BOX		METER, PULL BOX
EG	EDGE OF GUTTER	PED	PEDESTAL		SIGN
EMH	ELECTRIC MANHOLE	PIV	POST INDICATOR VALVE		CONCRETE
EP	EDGE OF PAVEMENT	PL	PROPERTY LINE		BLOCK WALL
EPB	ELECTRONIC PULL BOX	PP	POWER POLE		LIGHT STANDARD
ER	ELECTRICAL RISER	PVT	PT&T VAULT		TRAFFIC SIGNAL
EVT	ELECTRICAL VAULT	R	RAMP		STREET LIGHT
FC	FINISHED CONCRETE	R/W	RIGHT OF WAY		HANDICAP STALL
FDC	FIRE DEPT CONNECTION	SDMH	STORM DRAIN MANHOLE		WROUGHT IRON FENCE
FF	FINISHED FLOOR	SLPB	STREET LIGHT PULL BOX		WOOD FENCE
FH	FIRE HYDRANT	SMH	SEWER MANHOLE		CHAINLINK FENCE
FL	FLOWLINE	TC	TOP OF CURB		
FS	FINISHED FLOOR	TE	TRASH ENCLOSURE		
FW	FRONT OF WALK	TG	TOP OF GRATE		

BENCHMARK:
BENCHMARK NO. 6 (CITY OF ALHAMBRA)
DESCRIPTION: L&T CENTER CURB RETURN SW CORNER OF RAYMOND & COMMONWEALTH AVENUE
ADJUSTED ELEVATION: 496.86 FEET NAD83

BASIS OF BEARINGS:
THE BASIS OF BEARINGS USED ON THIS PLAN IS THE CENTERLINE OF PALM AVENUE BEARING NORTH 00°13'00" WEST AS SHOWN ON SUBDIVISION NO. 1 OF DOLGEVILLE MAP BOOK 5 PAGE 16 RECORDS OF SAID COUNTY.

REVISIONS

NO.	DESCRIPTION	BY	DATE	APPROVED

PREPARED FOR:
CHARLIE SHEN
CFT NV DEVELOPMENTS, LLC
(626) 372-8122
CHARLIE.SHEN@PANDARG.COM

REGISTERED PROFESSIONAL ENGINEER — MICHAEL MOUSSA ZAHRAN — No. 44560 — Exp. 3-31-2024 — CIVIL — STATE OF CALIFORNIA

LDC LAND DEVELOPMENT CONSULTANTS
LAND PLANNERS
SURVEYORS
CIVIL ENGINEERS
1520 BROOKHOLLOW DRIVE, SUITE 33
SANTA ANA, CALIFORNIA, 92705
(714) 557-7700 (714) 557-7707 FAX

DATE: 8-1-23
SCALE: 1"=20'
DRAFTED: SZ
CHECKED: HZ

SITE PLAN
TENTATIVE PARCEL MAP NO. 84017
APN: 5342-022-033, -034, -035, -036, -053 & -054
ALHAMBRA, CA 91801

SHEET 1 OF 1
JOB NO. 622

ATTACHMENT B

UPDATED TRAFFIC VOLUME FIGURES

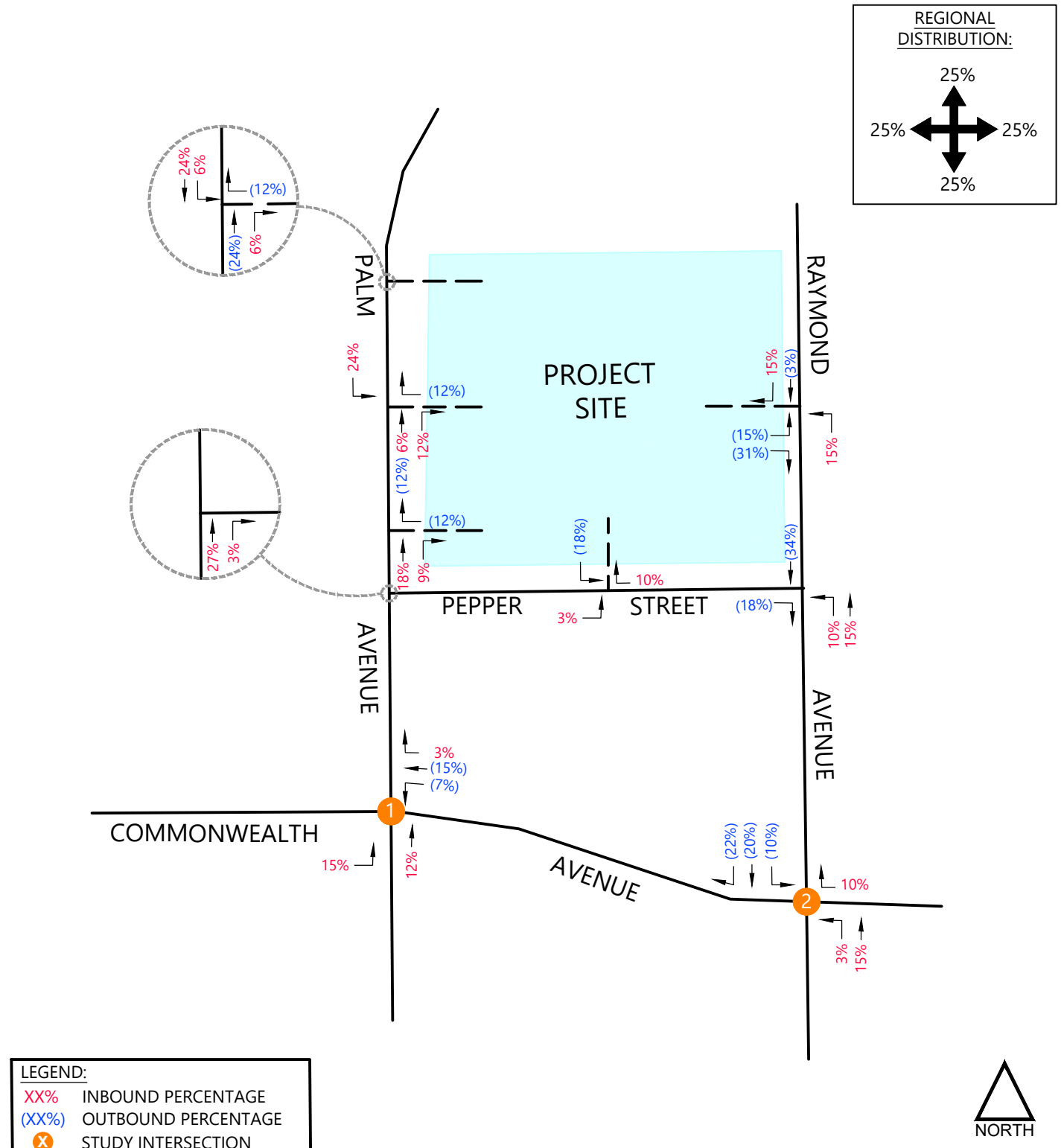


FIGURE 1

8/1/2023

J:\2022\JC28074 CFTPlazaAlhambraPalmAve&PepperSt\Graphics\PROJ-DIST-PROP_20230525

PROPOSED PROJECT TRIP DISTRIBUTION PERCENTAGES
(NON-PASS-BY)

300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.koacorp.com

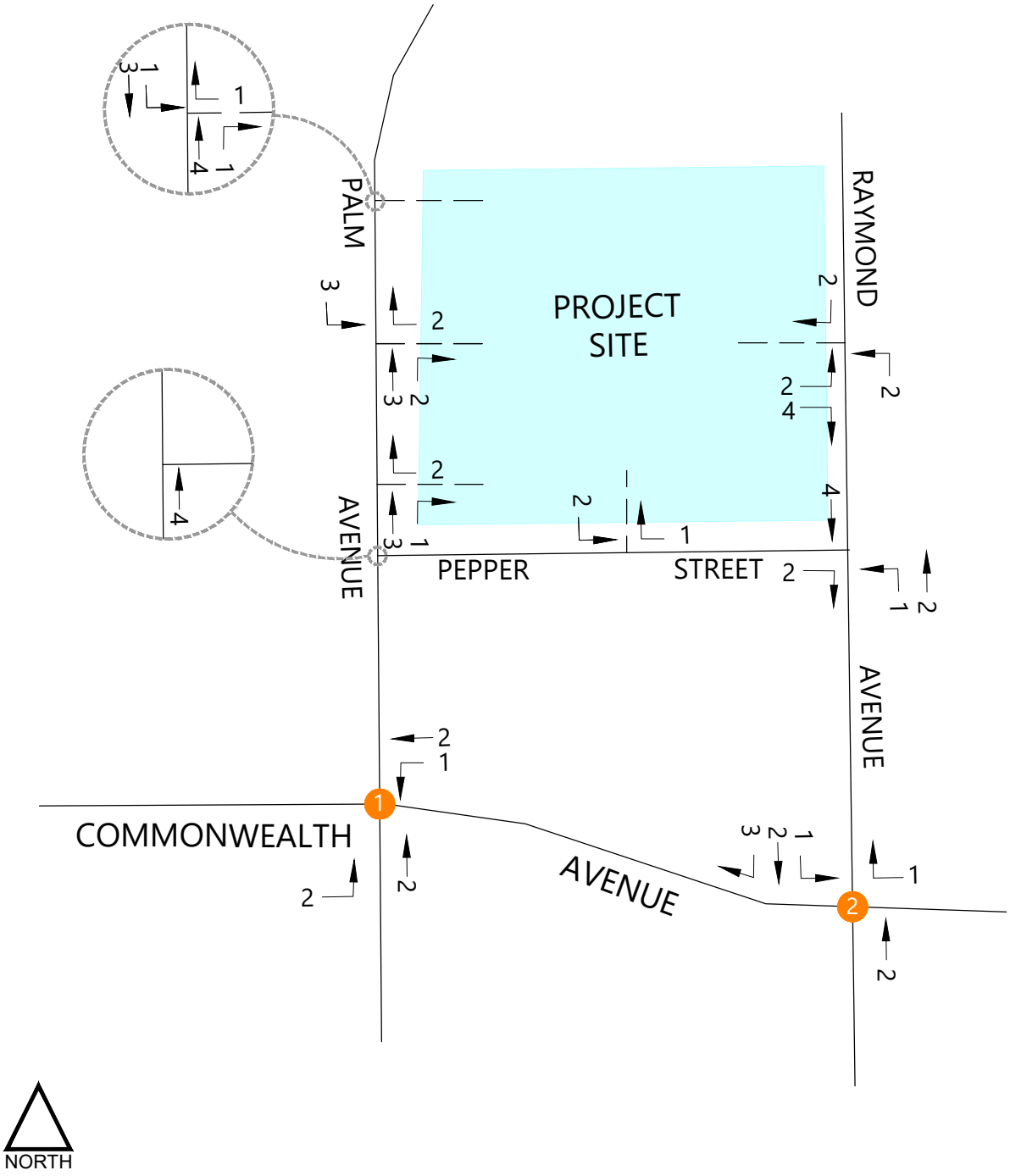


FIGURE 2

8/1/2023

J:\2022\JC28074 CFT Plaza Alhambra Palm Ave & Pepper St\Graphics\AMPROJ

PROPOSED PROJECT TRAFFIC VOLUMES
(NON-PASS-BY)
WEEKDAY AM PEAK HOUR

KOA
300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.koacorp.com

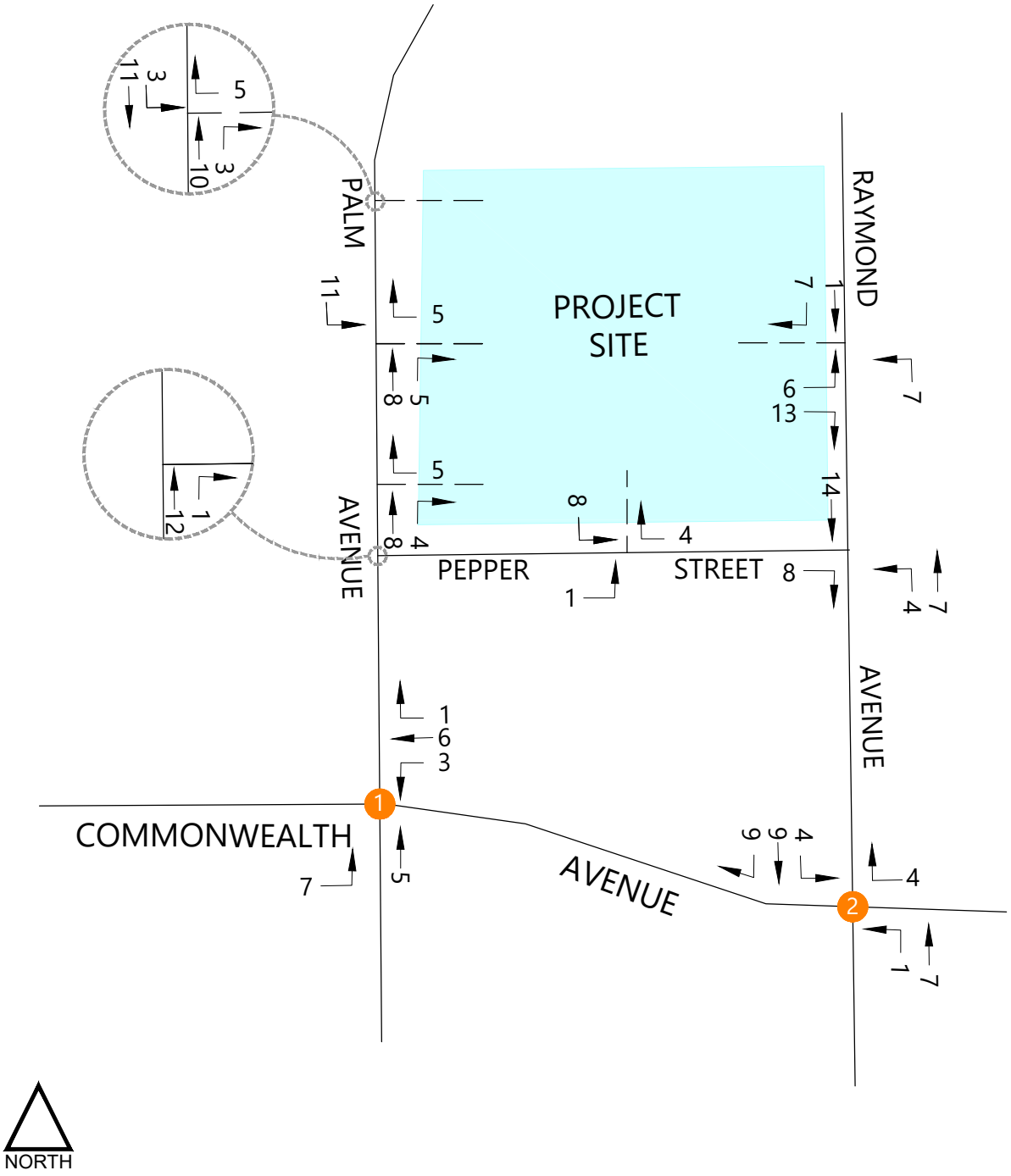


FIGURE 3

8/1/2023

J:\2022\JC28074 CFT Plaza Alhambra Palm Ave & Pepper St\Graphics\PMPROJ

PROPOSED PROJECT TRAFFIC VOLUMES
(NON-PASS-BY)
WEEKDAY PM PEAK HOUR

300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.koacorp.com

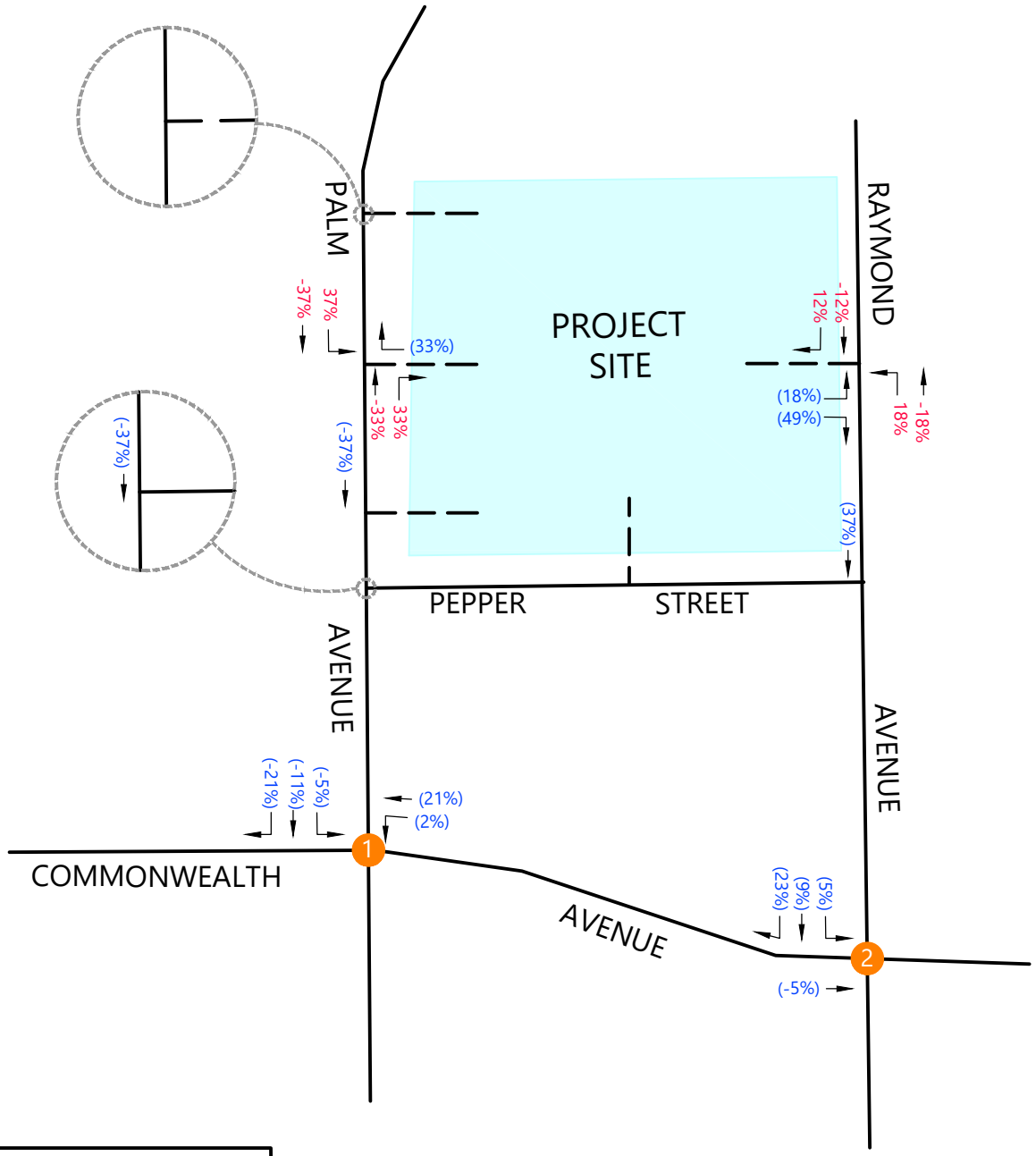


FIGURE 4

8/1/2023

J:\2022\JC28074 CFTPlazaAlhambraPalmAve&PepperSt\Graphics\PROJ-PASSBY-AM-DIST

PROPOSED PROJECT PASS-BY TRIP DISTRIBUTION PERCENTAGES
WEEKDAY AM PEAK HOUR

300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.koacorp.com

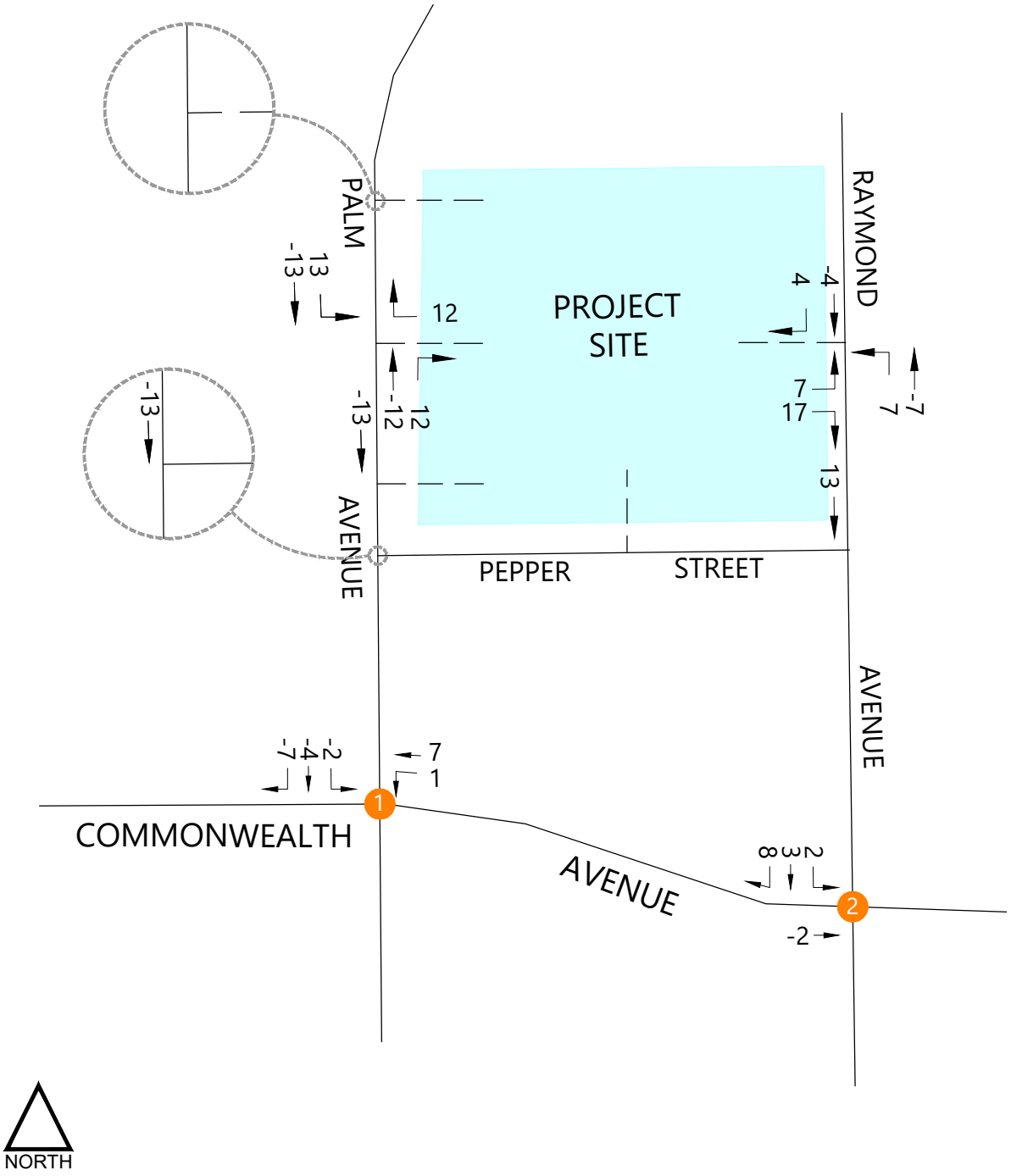


FIGURE 5

8/2/2023

J:\2022\JC28074 CFTPlazaAlhambraPalmAve&PepperSt\Graphics\PROJ-PASSBY-AM-VOLS

PROPOSED PROJECT TRAFFIC VOLUMES
(PASS-BY)
WEEKDAY AM PEAK HOUR

300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.koacorp.com

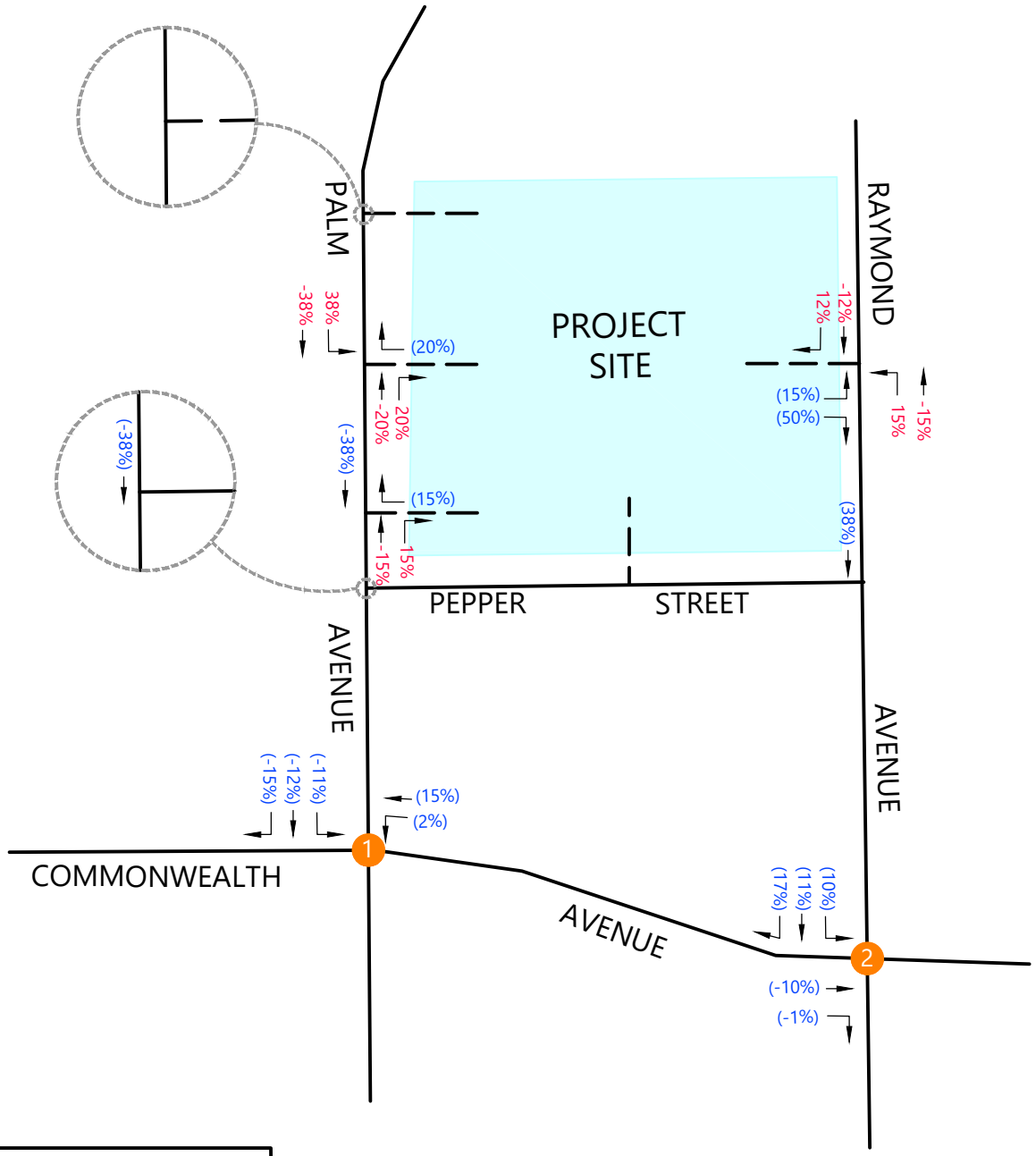


FIGURE 6

8/2/2023

J:\2022\JC28074 CFTPlazaAlhambraPalmAve&PepperSt\Graphics\PROJ-PASSBY-PM-DIST

PROPOSED PROJECT PASS-BY TRIP DISTRIBUTION PERCENTAGES
WEEKDAY PM PEAK HOUR

300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.koacorp.com

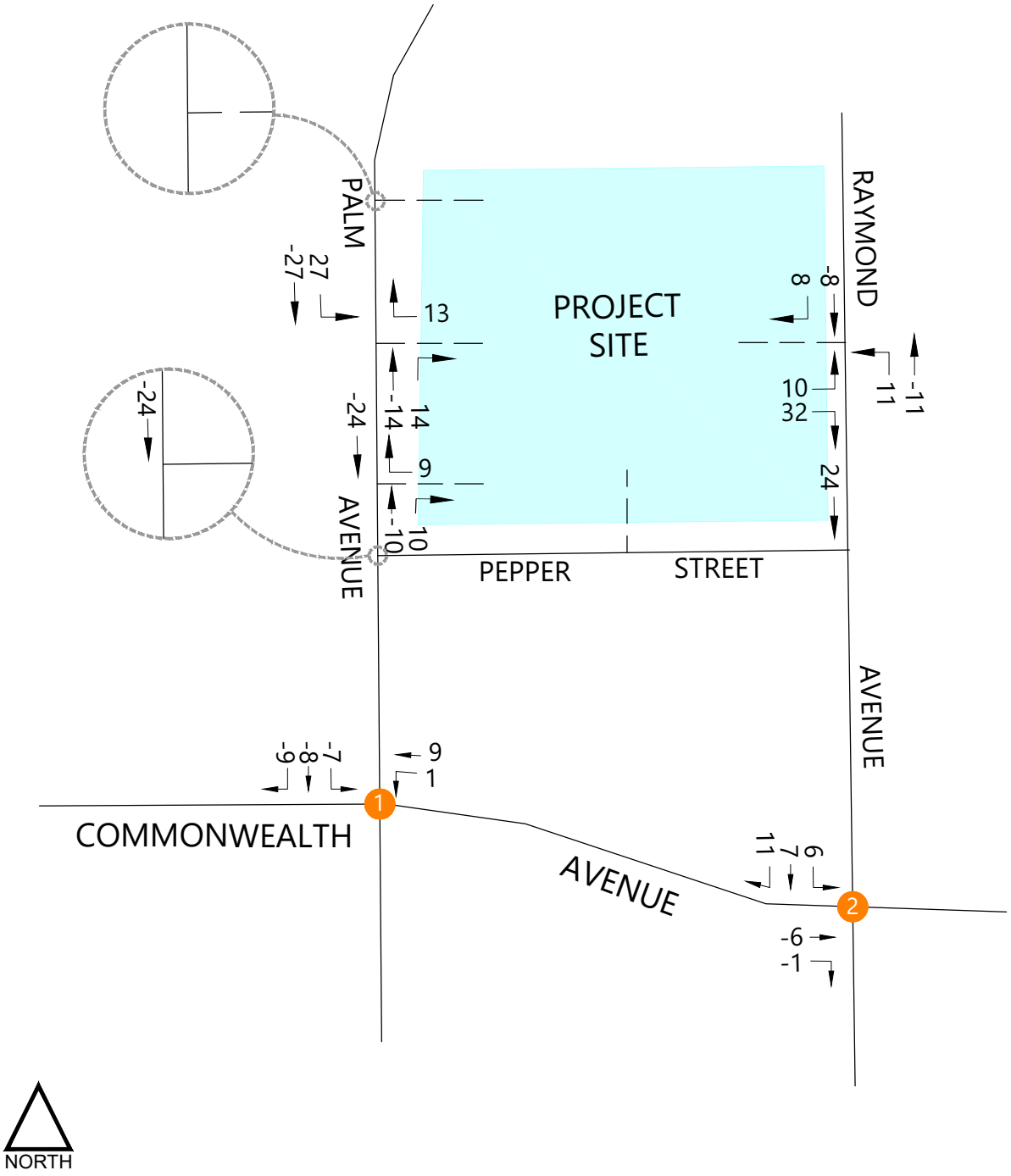


FIGURE 7

8/1/2023

J:\2022\JC28074 CFTPlazaAlhambraPalmAve&PepperSt\Graphics\PROJ-PASSBY-PM-VOLS

PROPOSED PROJECT TRAFFIC VOLUMES
(PASS-BY)
WEEKDAY AM PEAK HOUR

300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.koacorp.com

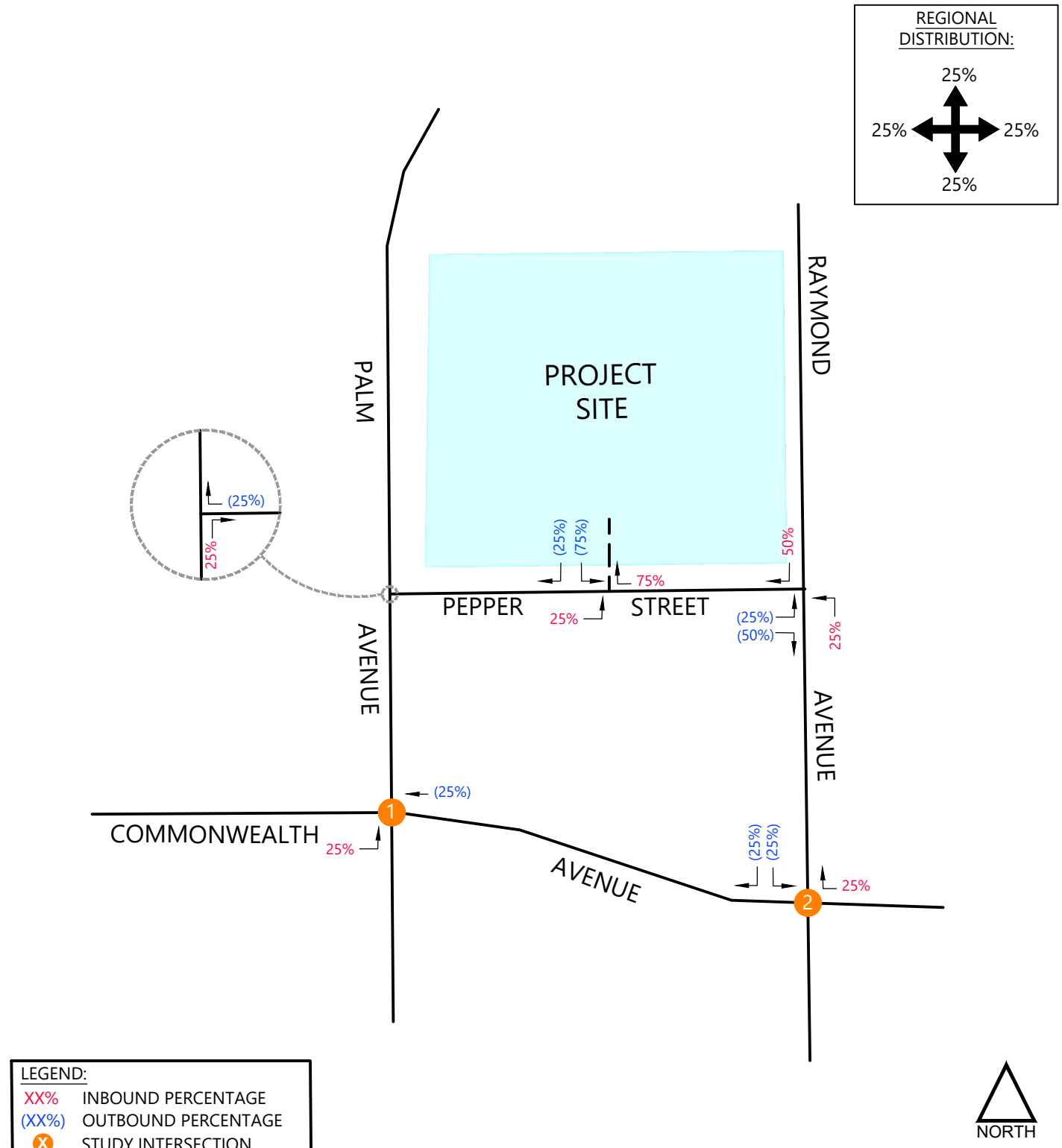


FIGURE 8

8/2/2023

J:\2022\JC28074 CFTPlazaAlhambraPalmAve&PepperSt\Graphics\PROJ-DIST-EXIST

EXISTING USE TRIP DISTRIBUTION PERCENTAGES

300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.koacorp.com

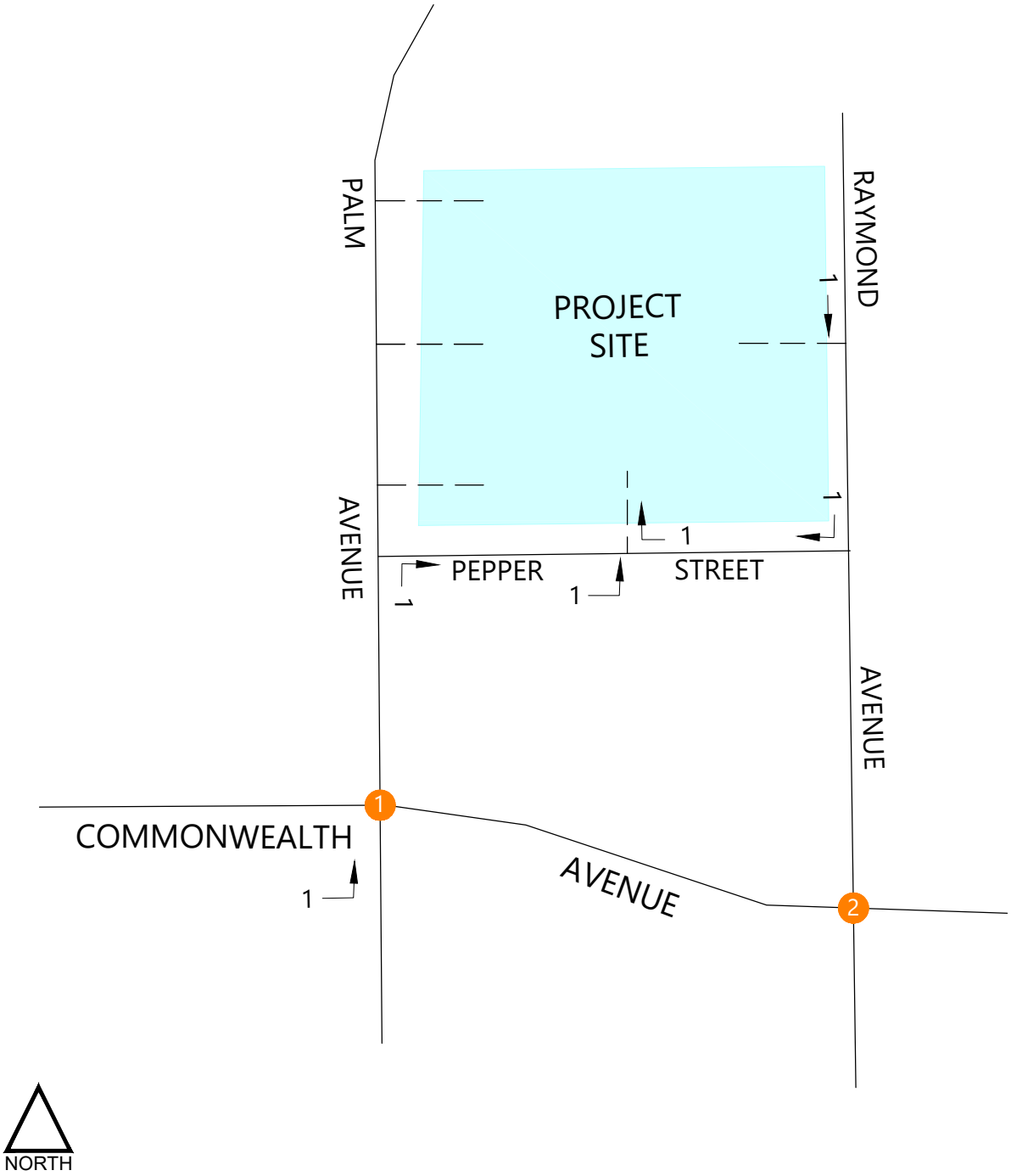


FIGURE 9

8/2/2023

J:\2022\JC28074 CFT Plaza Alhambra Palm Ave & Pepper St\Graphics\AMPROJ

EXISTING USE TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR

300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.koacorp.com

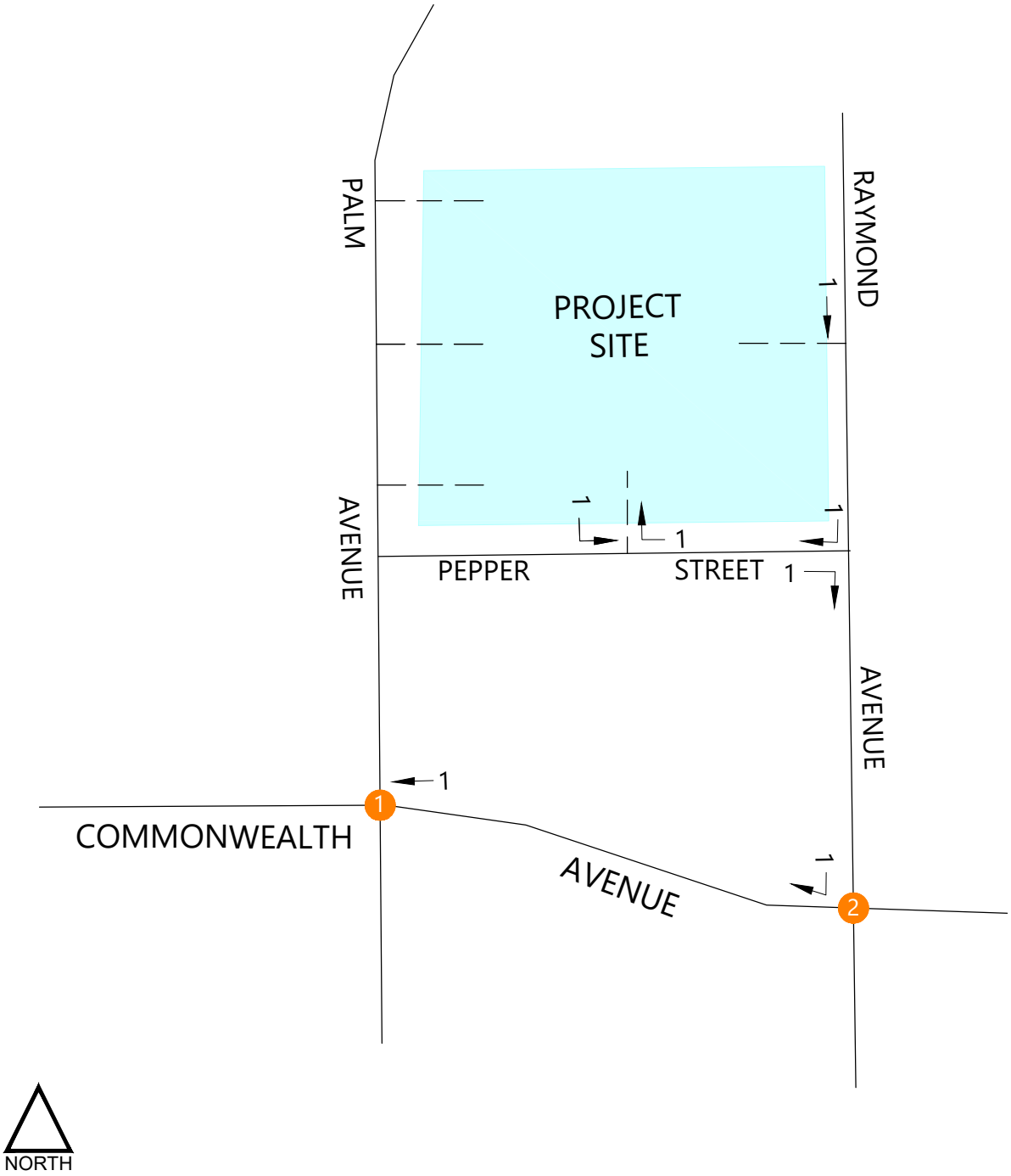


FIGURE 10

8/2/2023

J:\2022\JC28074 CFT Plaza Alhambra Palm Ave & Pepper St\Graphics\AMPROJ

EXISTING USE TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR

300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.koacorp.com

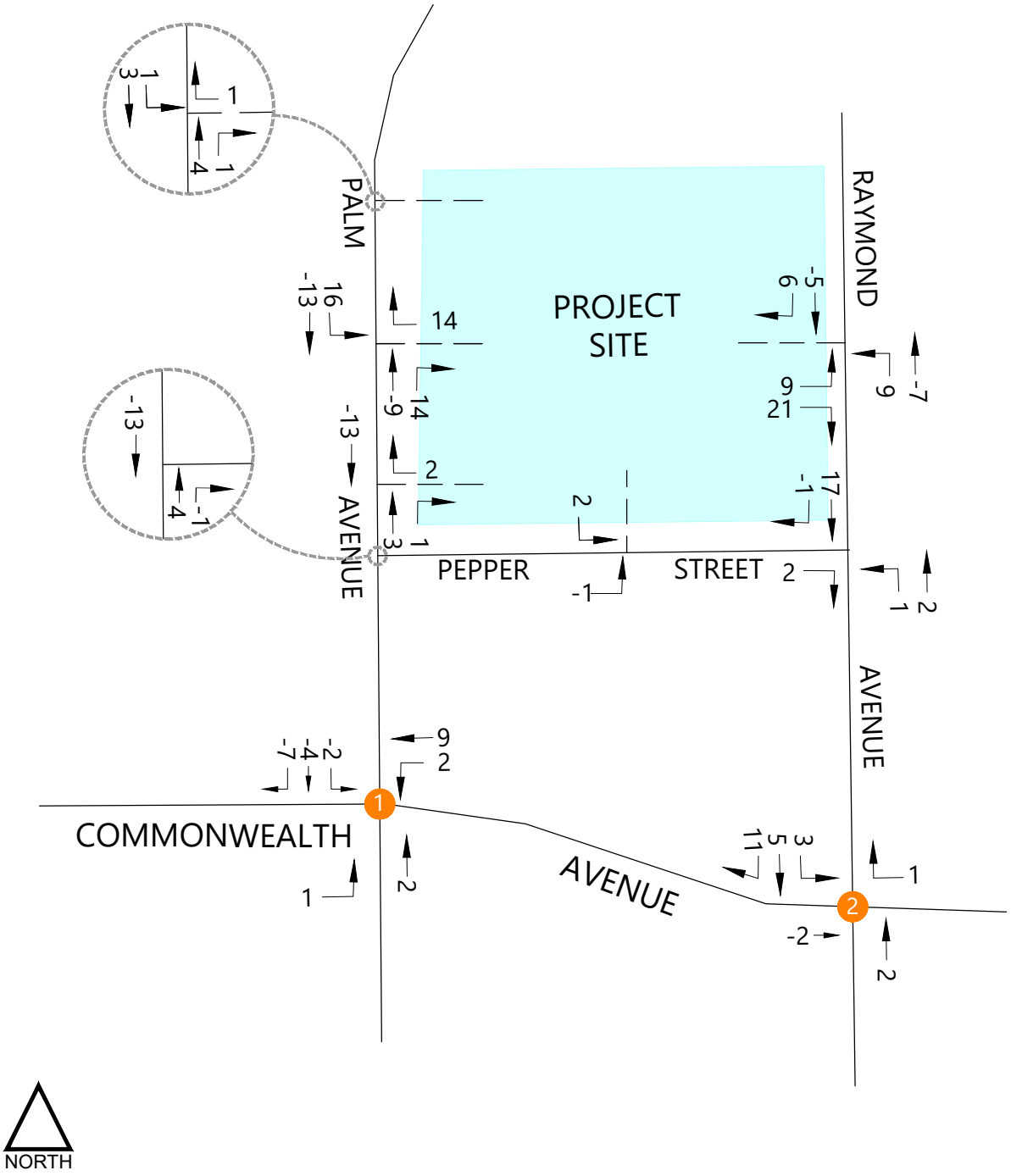


FIGURE 11

8/2/2023

J:\2022\JC28074 CFT Plaza Alhambra Palm Ave & Pepper St\Graphics\AMPROJ

NET PROJECT TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR

300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.koacorp.com

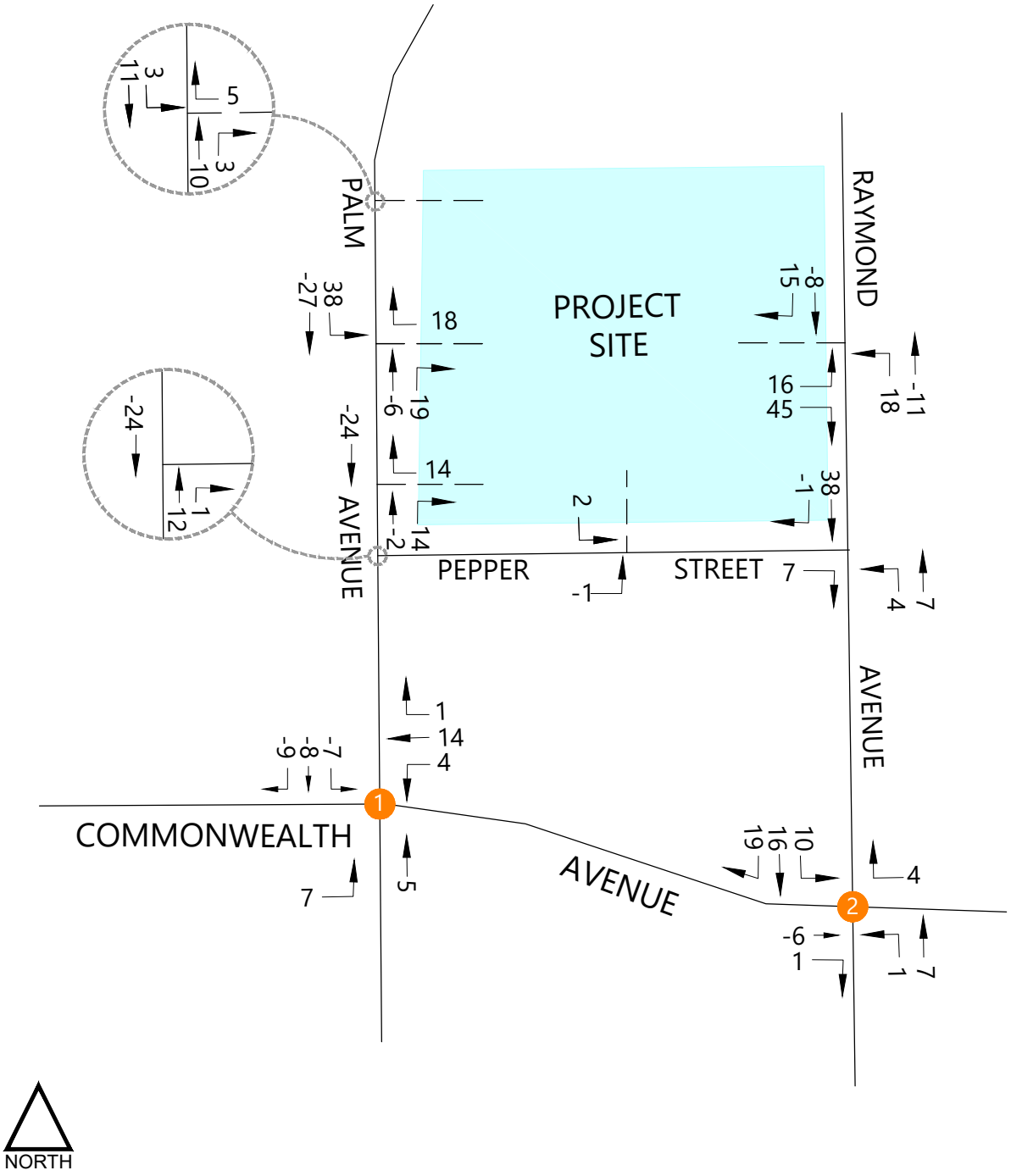


FIGURE 12

8/2/2023

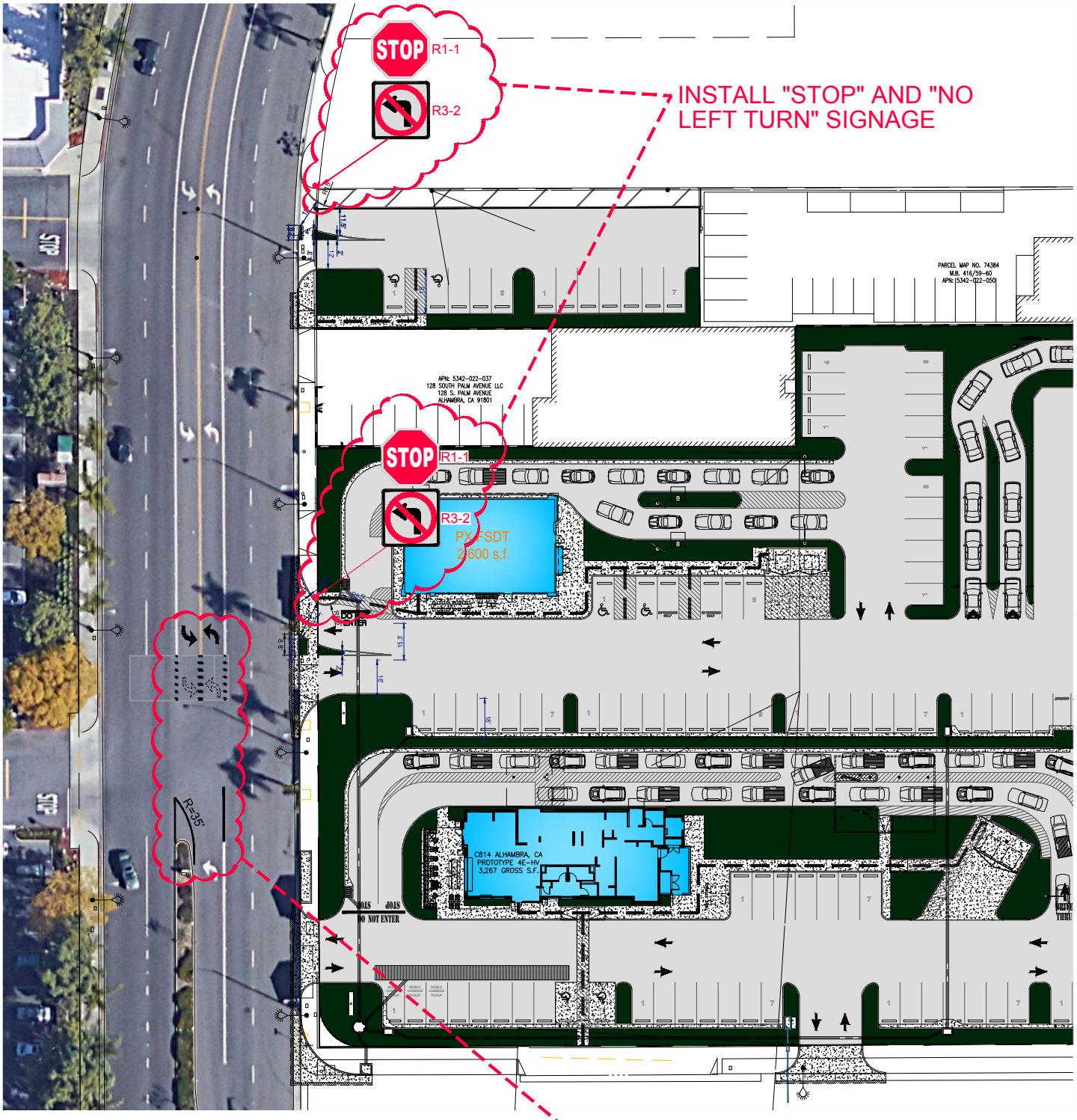
J:\2022\JC28074 CFT Plaza Alhambra Palm Ave & Pepper St\Graphics\AMPROJ

NET PROJECT TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR

300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.koacorp.com

ATTACHMENT C

PROPOSED PALM AVENUE STRIPING AND SIGNAGE MODIFICATIONS



LEGEND

EXISTING STRIPING & MARKINGS TO BE REMOVED

PROPOSED STRIPING & MARKINGS

PROPOSED SIGN AND POST

ATTACHMENT C

8/3/23

J:\2022\JC28074 CFTPlazaAlhambraPalmAve&PepperSt\Graphics\PALM-AVE-STRP_20230803

PROPOSED PALM AVENUE STRIPING AND SIGNAGE MODIFICATIONS - CONCEPTUAL PLAN

300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.koacorp.com

ATTACHMENT D

PROPOSED RAISING CANE'S ON-SITE TRAFFIC MANAGEMENT PLAN

Raising Cane's Restaurant #0814

2050 Pepper St, Alhambra, CA 91801

On-Site Traffic Management Plan

Date Prepared: August 2023

INTRODUCTION

This On-Site Traffic Management Plan (TMP) has been prepared for the proposed Raising Cane's restaurant at Palm and Pepper Alhambra, CA 91801. The purpose of this TMP is to develop an ingress/egress traffic circulation, queuing management and operations plan to address both peak and standard traffic circulation and queuing periods. Additionally, the intent of the TMP is to reduce the potential for impacts to the adjacent public Right-of-Way and proposed Retail Center and to provide the City of Alhambra and Raising Cane's mechanisms and guidelines to employ for various stages and phases of on-site traffic operations.

The project site location is shown in its regional setting in Figure 1 hereon.

Figure 1 – Vicinity Map

PROJECT DESCRIPTION

The project site is located at Palm and Pepper in Alhambra, CA 91801, bounded by South Palm Ave to the West, Pepper St to the South and S Reymond Ave to the East. To the North of site is existing commercial/light industrial buildings. Surrounding land uses consist of commercial to the north, east, south, and west.

The existing project site is currently occupied by a multitude of commercial/light industrial buildings surrounded by existing retail and commercial tenants. The project will involve the demolition of the existing buildings and the construction of multiple new commercial buildings,

one of which is a 3,181 square-foot Raising Cane's restaurant building with a dual drive-through and outdoor covered patio area. The operating hours for sit-down and drive-through service will be from 9:00 AM to 3:30 AM, seven days a week.

The proposed project would provide two drive-through lanes. In standard operating conditions, the drive-through lanes would provide two side-by-side entry lanes with two separate order boards, and then merge into a single drive-through lane prior to the pay and pick-up windows. This scenario is demonstrated as Exhibit A herein. Under peak drive-through conditions, the drive-through lane would continue as two side-by-side lanes, providing dual pay and pick-up stations. Crew members will be present to facilitate payment and food pick up. The peak drive through scenario has been operationally broken up into multiple phases of deployment to mitigate traffic impacts. Curbside pick-up parking is provided at the front of the restaurant and may be utilized at any time to further alleviate potential drive through overflow.

The restaurant anticipates employing 45-50 full and part-time employees with an average of 12-15 crew members with 2 managers working per shift. On-site cameras showing exterior activity will be on display inside the restaurant. Kitchen Crewmembers look at the queue to see when they should be prepared to cook and deploy tablet ordering. The restaurant anticipates implementing various other operational features to provide an expeditious drive-through operation, including handheld tablet ordering, mobile ordering and pickup, trained Crewmembers to manage traffic, off duty police officers (as deemed necessary), and parking management – all of which are further described in this TMP.

The TMP is comprised of standard operations and three (3) phase scenarios to be implemented for on-site traffic circulation, queuing management, and operational standards to address the standard and peak special event scenarios. Standard operations are expected to be deployed during typical conditions of the drive-through operations. Phase 1-2 will be implemented to fully contain the peak drive through queue, which typically occurs for 15–20-minute intervals between the hours of 11:30am-1:30pm and 5pm-8pm. Phase 3 is reserved for the "honeymoon/grand opening" phase. This phase is intended to only be needed during the first 90 days of opening and as-needed for special events.

STANDARD – DUAL DRIVE THROUGH LANE TO SINGLE PAY & PICK UP

As mentioned in previous sections of this report, in normal conditions, the drive-through lanes would provide two side-by-side entry lanes and two order boards, and then merge into a single drive-through lane prior to the pay and pick-up windows. This scenario is demonstrated as Exhibit A herein.

- Queue Capacity: 10 vehicles (based on a 24-ft vehicle spacing)
- Minimum of one menu board will operate at all times.

PHASE 1 – DUAL DRIVE THROUGH LANE OPERATIONS

Phase 1 of the TMP illustrates the intended drive-through operation under a standard, non-peak scenario when the queue exceeds the capacity of the standard operational condition and the second pay and pick up lane is opened. Refer to Exhibit B.

- Queue Capacity: 17 vehicles (based on 24-foot vehicle spacing)
- Minimum of two menu boards will operate at all times.

- When volumes increase, such that there are consistently 2 cars waiting to order, as shown in the Standard Drive Through phase, the second lane will be deployed, and two (2) Crewmembers will be deployed for hand-held tablet ordering.
- Staging for Crewmembers is shown on Exhibit B within the striped areas.

PHASE 2 – DUAL DRIVE THROUGH LANE OPERATIONS AND EXTENDED QUEUE

Phase 2 of the TMP illustrates the intended drive-through operation under a standard, non-peak, and non-special event scenario and additional queuing is required. Refer to Exhibit C.

- Queue Capacity: 27 vehicles (based on 24-foot vehicle spacing)
- Crewmembers taking hand-held tablet orders that have been deployed as described in Phase 1 will continue to be in operation.
- A Crewmember will be dedicated outside and stationed at the pick-up window. This Crewmember will hand the food to patrons in the second drive-thru lane.
- A Crewmember will be staged at the drive through entrance directing customers into each line to distribute the queue to optimize queue storage and drive-through efficiency.
- Mobile orders will be required to use the designated mobile order pickup stalls located south of the restaurant.
- Tailgate orders (large party-sized orders) will not be permitted for drive-through customers.

PHASE 3 – ADDITIONAL QUEUE STACKING FOR SPECIAL OR HIGH-VOLUME EVENTS

Phase 3 of the TMP illustrates the intended drive-through operation under a peak or special event scenario where the drive through queue exceeds onsite capacity of the dedicated queuing lanes. This phase of the TMP is considered a “grand opening/honeymoon scenario” for the proposed restaurant and is not expected to be needed on a regular basis. Based on average peak-hour drive thru queue data gathered from surrounding Cane’s Restaurants during COVID, drive-thru only operations, the drive through queue is not anticipated to exceed a maximum of 25 cars. The peak drive-thru queue is expected to be fully contained within the Raising Cane’s parcel limits and be fully managed as shown in Phase 2. Raw onsite queue counts are included in this report for reference. Given the information, phase 3 is not intended to be deployed on a regular basis. Overflow queue will stack in the drive aisle east of the proposed drive through lanes and off-duty police officers or crew members will manage traffic circulation in the surrounding streets so that drive through traffic enters the site from Raymond Avenue. This intent of this, it to mitigate drive thru queue/congestion on Palm Avenue, which is a major arterial road. During this phase, an additional crewmember with a hand-held directional sign will be deployed at the southern drive approach on Pepper Steet to assist in directing drive-through traffic to the northeast drive entrance on South Raymond Avenue. The crew member or off-duty officer will promote efficient traffic circulation in the center and restrict queuing in the east/west drive aisle south of the proposed restaurant. Parking spaces on the east side of the site are set aside from the main parking area. These parking spaces will be designated for Cane’s employee parking during these peak hours. The over-flow queue is not intended to have negative impacts to costumers’ access to the surrounding tenants and is not expected to impede or block the center’s fire access lane. Refer to Exhibit D.

- Queuing Capacity: 31 vehicles
- Crewmember deployment would remain as described in Phase 2

- An off-duty police officer or crew member will be deployed and staged at the proposed entrance northeast of the proposed Raising Cane's parcel to control traffic and prevent patrons from queuing in the main drive aisle of the proposed center. The goal would be to redirect queue to the entrance off Raymond Avenue until there was sufficient queue capacity available onsite.
- An off-duty police office or crew member will be staged at the southwest most drive approach on South Palm Ave to ensure that drive through traffic does not enter at this approach. They would also help manage conflicts with vehicles exiting the drive thru and resolve potential conflicts with vehicles parked in the adjacent stalls.
- An off-duty police officer or crew member will be deployed and staged at the proposed entrance south of the proposed Raising Cane's parcel to control traffic and prevent drive through patrons from entering at this driveway. The goal would be to redirect queue as necessary to the proposed entrance at Raymond Avenue until there was sufficient queue capacity available onsite.
- Mobile orders will continue to be encouraged to use the designated mobile order pickup stalls or additional available parking.
- Tailgate orders, or large, part-sized orders, will not be permitted for drive-through customers.
- On-site security will be employed to help prevent loitering and increase safety for customers and Crewmembers.
- When this phase is anticipated to be deployed, Raising Cane's staff will be encouraged to park in spaces east of the restaurant that may potentially be blocked by queue during this phase.

IMPLEMENTATION

As a part of Crewmember and Restaurant Operator training, this TMP shall be incorporated into their Crewmember training materials. The Restaurant Manager and Area Manager shall be prepared to implement the mechanisms laid out by this TMP. This TMP is subject to change by Raising Cane's as needed once full operations and circulation are understood. Contacts for Restaurant Manager and Area Manager for the implementation of this TMP are as follows:

Name	Title	Phone Number	Email Address
Restaurant Manager 1			
Area Manager			
DRSO			

Should there be any questions regarding the implementation of this TMP, please reach out to the contacts listed above.

TABLE 1

SUMMARY OF DRIVE-THROUGH QUEUING DATA COLLECTION
RAISING CANE'S - TYPICAL WEEKDAY
AVERAGE, 85TH PERCENTILE, AND PEAK QUEUES

Time Period	Number of Drive-through Vehicles in the Queue								
	Average Queue			85th %-ile [1] Queue			Peak Queue		
	Orange	Huntington Beach	Foothill Ranch	Orange	Huntington Beach	Foothill Ranch	Orange	Huntington Beach	Foothill Ranch
Lunch									
11:00-11:15 AM	6.4	1.7	1.1	8.0	3.0	2.0	8	3	3
11:15-11:30 AM	6.6	3.8	2.3	8.0	5.0	4.0	9	6	5
11:30-11:45 AM	5.0	3.4	4.0	5.5	4.2	4.0	7	7	6
11:45-12:00 PM	2.6	4.4	6.5	4.0	6.0	9.0	4	7	10
12:00-12:15 PM	6.4	5.0	4.3	7.5	7.0	6.0	8	8	7
12:15-12:30 PM	6.5	8.5	7.0	8.0	12.0	8.0	9	14	9
12:30-12:45 PM	4.8	4.9	7.3	8.2	7.2	9.0	9	9	10
12:45-1:00 PM	10.1	3.4	5.3	11.0	5.0	6.0	12	6	7
1:00-1:15 PM	7.0	7.9	4.2	9.0	10.0	10.0	9	11	7
1:15-1:30 PM	2.5	4.1	6.9	5.0	6.0	10.0	5	6	11
1:30-1:45 PM	4.4	5.1	8.3	6.7	7.0	10.0	7	9	11
1:45-2:00 PM	4.8	3.6	2.9	6.0	5.0	4.0	8	6	4
Highest Value	10.1	8.5	8.3	11.0	12.0	10.0	12	14	11
Dinner									
4:00-4:15 PM	1.5	4.8	2.5	2.3	6.0	3.0	3	7	5
4:15-4:30 PM	6.1	2.2	1.8	8.0	3.5	2.0	8	5	3
4:30-4:45 PM	8.0	2.6	2.5	9.3	5.0	4.0	10	6	5
4:45-5:00 PM	7.0	6.7	2.8	9.3	8.0	4.0	10	10	5
5:00-5:15 PM	6.0	4.7	3.5	7.0	6.2	5.0	8	7	5
5:15-5:30 PM	10.3	7.9	5.0	11.1	11.3	6.9	12	14	8
5:30-5:45 PM	9.4	14.1	10.7	11.0	16.2	14.9	11	18	16
5:45-6:00 PM	2.0	8.9	15.1	3.3	11.0	16.9	4	12	17
6:00-6:15 PM	7.8	8.0	15.8	10.8	11.0	17.0	12	12	19
6:15-6:30 PM	9.9	7.8	15.7	11.4	10.2	17.0	15	13	17
6:30-6:45 PM	13.2	10.5	15.5	14.3	12.0	18.0	15	14	21
6:45-7:00 PM	14.5	10.9	6.9	15.3	13.0	8.9	16	14	11
Highest Value	14.5	14.1	15.8	15.3	16.2	18.0	16	18	21

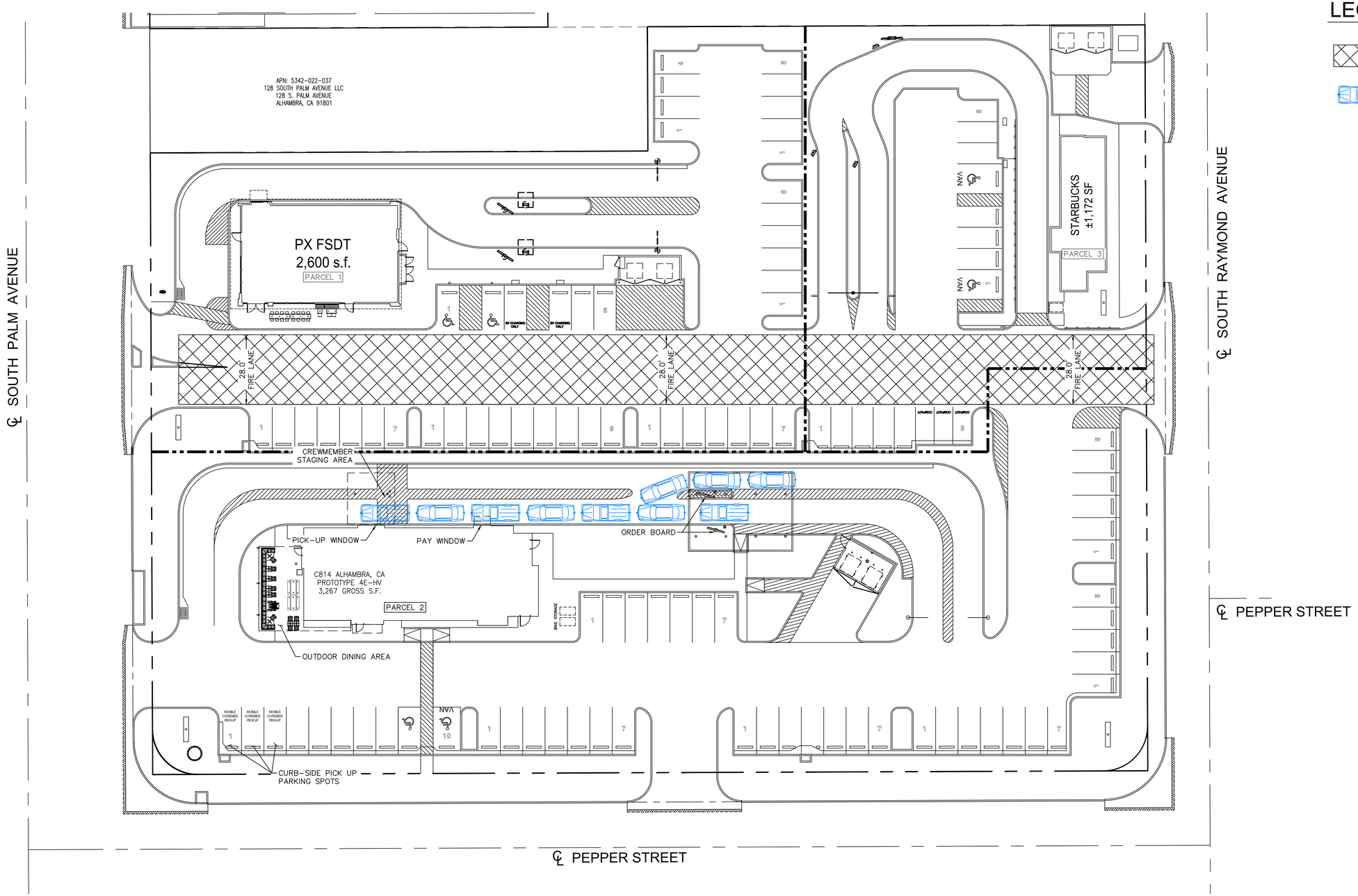
Notes: [1] 85th percentile = The queue will be less than the queue shown 85% of the time.

TABLE 2

SUMMARY OF DRIVE-THROUGH QUEUING DATA COLLECTION
RAISING CANE'S - SATURDAY
AVERAGE, 85TH PERCENTILE, AND PEAK QUEUES

Time Period	Number of Drive-through Vehicles in the Queue								
	Average Queue			85th %-ile [1] Queue			Peak Queue		
	Orange	Huntington Beach	Foothill Ranch	Orange	Huntington Beach	Foothill Ranch	Orange	Huntington Beach	Foothill Ranch
Lunch									
11:00-11:15 AM	3.3	0.9	2.3	4.0	1.1	3.9	4	2	4
11:15-11:30 AM	5.0	2.6	4.9	7.0	3.0	8.0	7	4	8
11:30-11:45 AM	2.1	1.8	8.7	3.0	3.6	11.0	4	4	12
11:45-12:00 PM	4.6	5.1	7.7	5.2	8.0	8.0	7	9	10
12:00-12:15 PM	7.7	9.2	11.5	9.0	10.0	14.0	10	10	15
12:15-12:30 PM	8.3	8.5	12.4	9.0	10.0	14.9	11	11	16
12:30-12:45 PM	6.9	5.4	12.8	8.0	6.6	14.0	8	9	15
12:45-1:00 PM	9.4	13.6	14.8	11.3	16.8	16.9	14	18	18
1:00-1:15 PM	13.8	13.7	16.1	16.7	16.0	20.0	18	16	19
1:15-1:30 PM	17.5	9.7	19.6	18.0	11.0	22.0	18	12	23
1:30-1:45 PM	15.3	7.2	15.5	17.1	8.0	16.9	18	9	19
1:45-2:00 PM	16.3	7.7	16.1	19.0	10.0	18.0	19	11	19
Highest Value	17.5	13.7	19.6	19.0	16.8	22.0	19	18	23
Dinner									
4:00-4:15 PM	14.7	7.3	2.7	17.8	10.0	4.0	20	11	6
4:15-4:30 PM	20.5	3.3	6.1	20.9	4.0	7.0	21	5	8
4:30-4:45 PM	18.7	2.6	7.5	19.0	4.0	9.0	19	7	10
4:45-5:00 PM	21.3	4.1	9.6	21.7	5.0	11.0	22	6	12
5:00-5:15 PM	21.0	6.4	14.3	22.8	9.3	17.0	24	10	18
5:15-5:30 PM	23.3	6.5	20.3	24.1	9.0	21.9	25	10	23
5:30-5:45 PM	23.0	10.6	16.4	23.7	13.0	19.9	24	15	20
5:45-6:00 PM	20.8	6.3	15.9	22.1	8.5	17.0	23	11	19
6:00-6:15 PM	23.3	7.5	15.1	24.4	11.0	17.9	25	12	19
6:15-6:30 PM	21.5	9.8	16.5	21.9	12.2	17.9	22	15	18
6:30-6:45 PM	21.3	14.4	16.5	21.7	16.0	18.0	22	18	18
6:45-7:00 PM	21.8	15.3	17.0	22.6	17.0	18.0	23	19	18
Highest Value	23.3	15.3	20.3	24.4	17.0	21.9	25	19	23

Notes: [1] 85th percentile = The queue will be less than the queue shown 85% of the time.



LEGEND

FIRE ACCESS LANE TO REMAIN CLEAR OF DRIVE THRU QUEUE

10 CARS

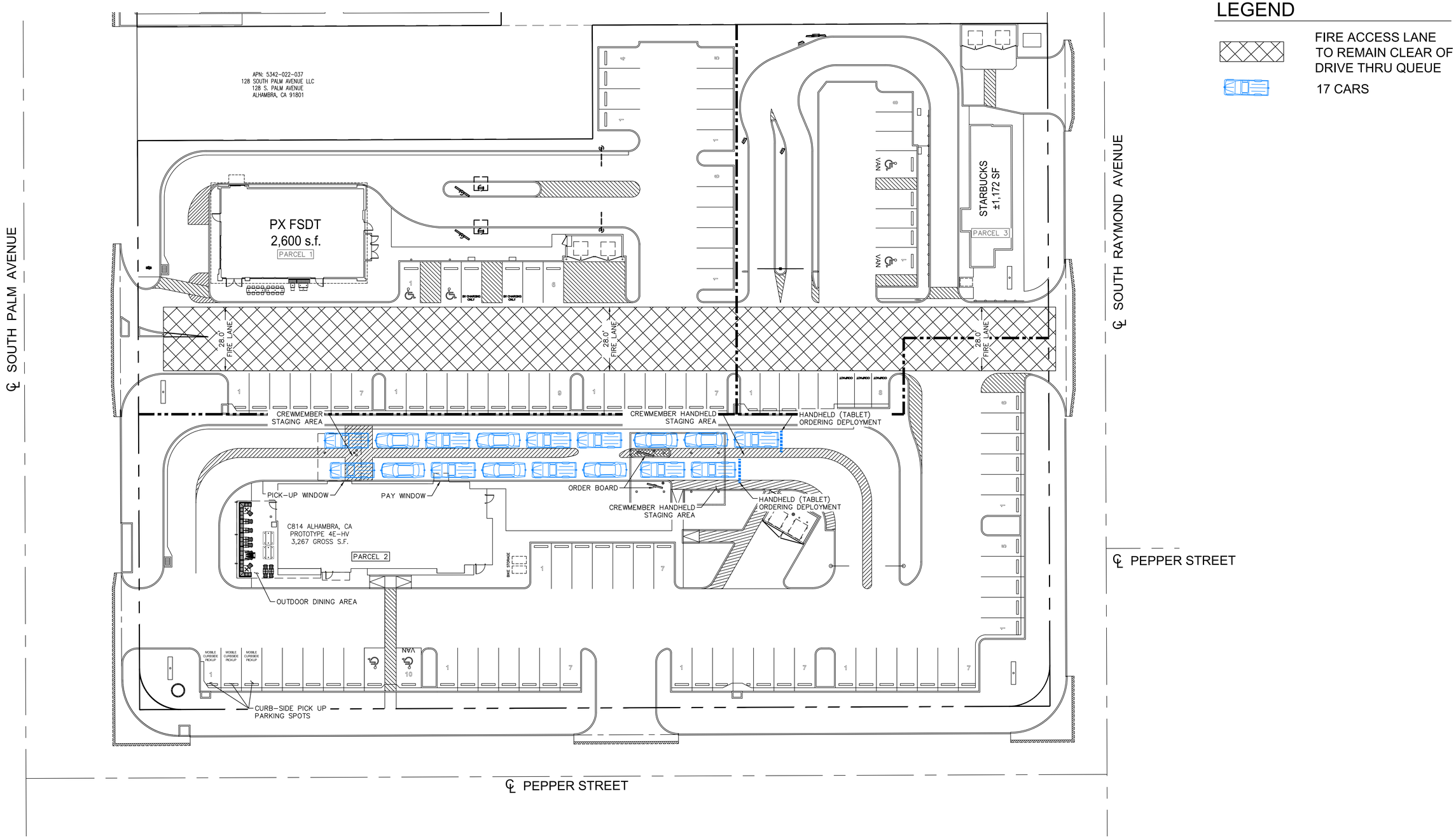
N

EXHIBIT A
STANDARD DRIVE THRU OPERATIONS

RC0814 PEPPER AND SOUTH PALM, ALHAMBRA CA

08/09/2023

Raising Cane's CHICKEN FINGERS



LEGEND

FIRE ACCESS LANE TO REMAIN CLEAR OF DRIVE THRU QUEUE

17 CARS

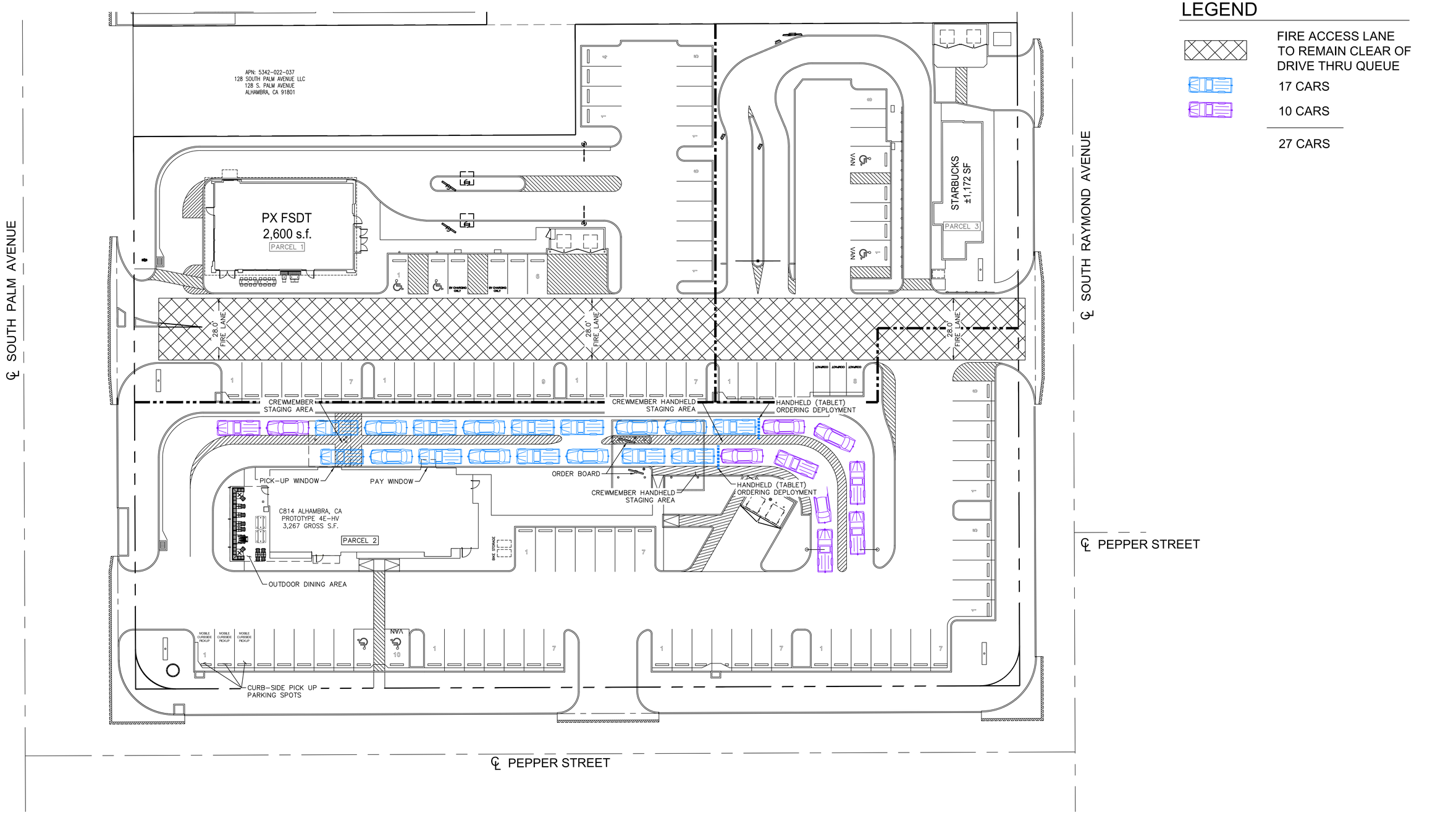
N

EXHIBIT B
PHASE 1 - TRAFFIC MANAGEMENT PLAN

RC0814 PEPPER AND SOUTH PALM, ALHAMBRA CA

08/09/2023

Raising Cane's CHICKEN FINGERS



LEGEND

FIRE ACCESS LANE TO REMAIN CLEAR OF DRIVE THRU QUEUE

17 CARS

10 CARS

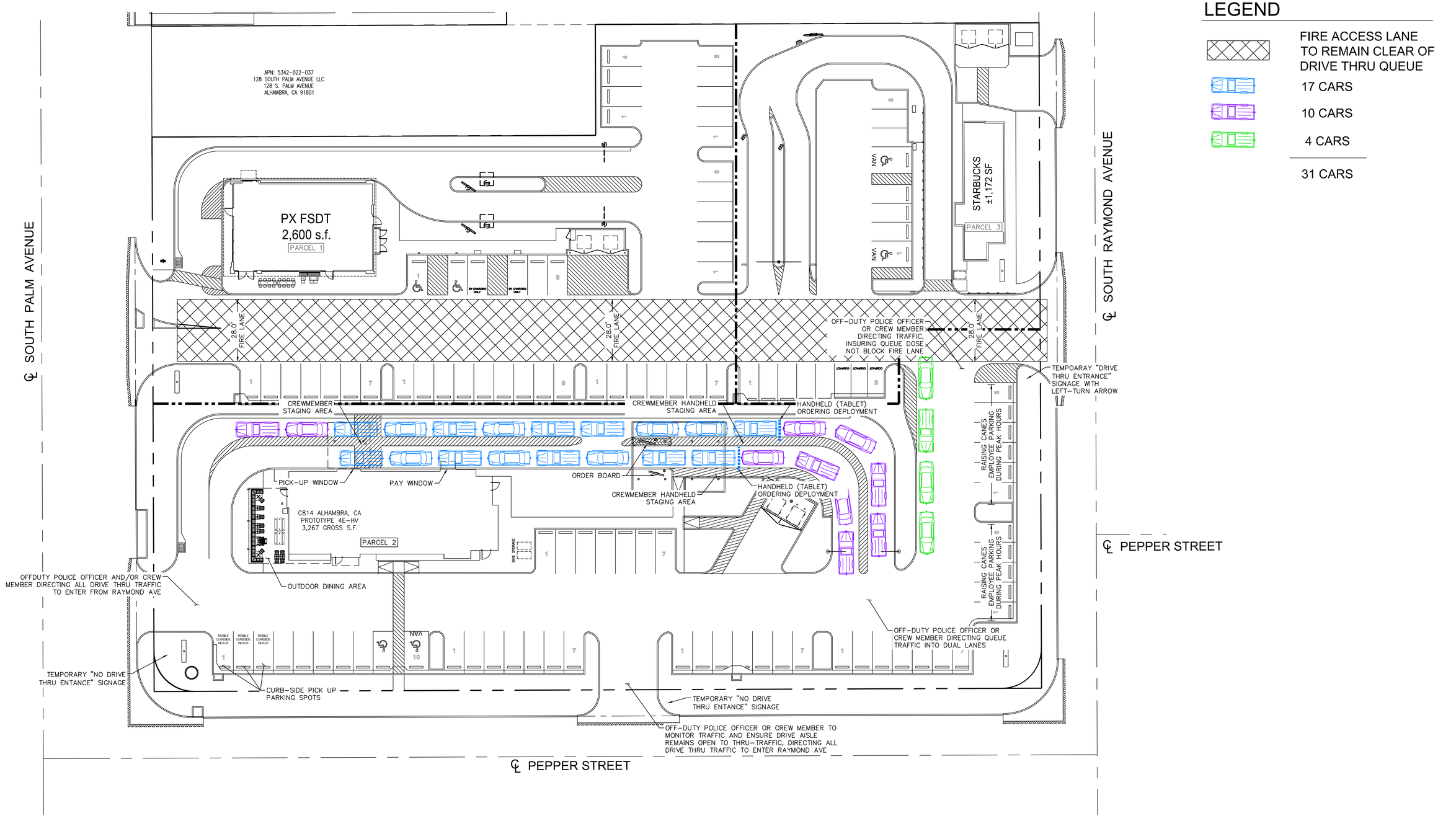
27 CARS

N

EXHIBIT C
PHASE 2 - TRAFFIC MANAGEMENT PLAN

RC0814 PEPPER AND SOUTH PALM, ALHAMBRA CA

08/09/2023



LEGEND

- FIRE ACCESS LANE TO REMAIN CLEAR OF DRIVE THRU QUEUE
- 17 CARS
- 10 CARS
- 4 CARS

31 CARS

N

EXHIBIT D
PHASE 3 - TRAFFIC MANAGEMENT PLAN

RC0814 PEPPER AND SOUTH PALM, ALHAMBRA CA

08/09/2023

ATTACHMENT E

PROPOSED PANDA EXPRESS DOUBLE LANE DRIVE-THRU MANUAL AND TRAFFIC MANAGEMENT PLAN

DOUBLE LANE DRIVE-THRU MANUAL

Document includes manual and SOP for double drive through lane operation

Panda Express June 2023

TABLE OF CONTENTS

INTRODUCTION

The double lane drive thru is designed to support the capacity of increasing throughput in terms of sales volume and car count. It is also designed to elevate the guest's experience in a timely manner. The contents of this SOP will cover an overview of the double lane set up and how or when to execute the procedures based on business needs.

OVERVIEW

The double drive lane drive thru store consists of 2 servicing lanes; "Lane 1 (L1) & Lane 2 (L2)". The guest experience in L1 is expected to be like the traditional single lane drive thru. Guests in L2 are expected to pay by credit card only and follow the L2 path to receive the order by a Panda associate.

There are a variety of ways to execute based on business needs and the following chart below depicts the execution in full swing.

Manager will deploy 2 outdoor order takers. One for each lane.	L2 guest pays by CC and will merge to L1 for all other payments.	Guest in L1 will be greeted at the service window. Guest in L2 will be greeted by a runner and handed their order.

If the guest ***pays*** the line busting associate with a credit card at, guest will proceed to follow in L2 path, and an associate will bring the food out the guest's car.

If guest ***does not pay*** by credit card, associate taking orders in L2 will ask the guest to merge into L1 to submit payment at the service window.

If the cash paying guest in L2 is not able to merge for whatever reason, the runner will run payment and submit to the DT cashier inside the store.

Industry Inspirations

- Prompt greeting and order taking
- Ease of communication
- Order accuracy
- Order available upon arrival at service window or pick up lane
- Overall minimal service time

EQUIPMENT AND ACCESSORIES

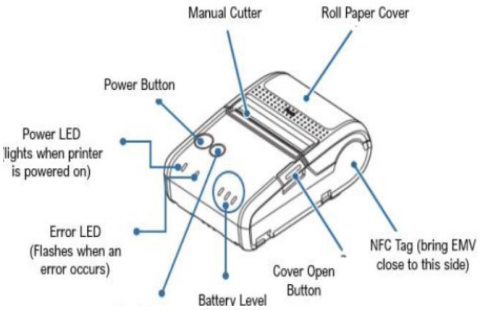
Two (2) order confirmation boards

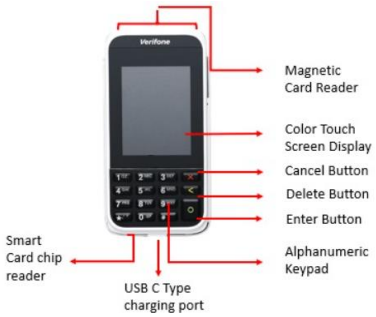
- Order confirmation boards for lanes 1 and 2 will be used in the event there is no associate available outside to take orders on tablets

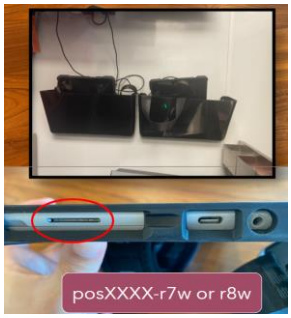
Two (2) tablets set up for order taking outside

- 1 tablet can be used for credit card payment by associate running orders to lane 2

	Charging and Care	Warranty and Replacement
Epson Mobilink TMP20 Printer	12 hours. LED will light when fully charged. Replace paper roll as needed.	1-year standard warranty. $300 to replace
Verifone e285 Handheld EMV Reader	8 hours. Green **O** circle button to turn on. Red **X** for 5-20 secs to turn off. Device IP will appear when booting.	3-year standard warranty. $400 to replace
Microsoft Surface Go Tablet aka register 7 or 8	6 hours using surface connecter	1-year standard warranty. $750 to replace



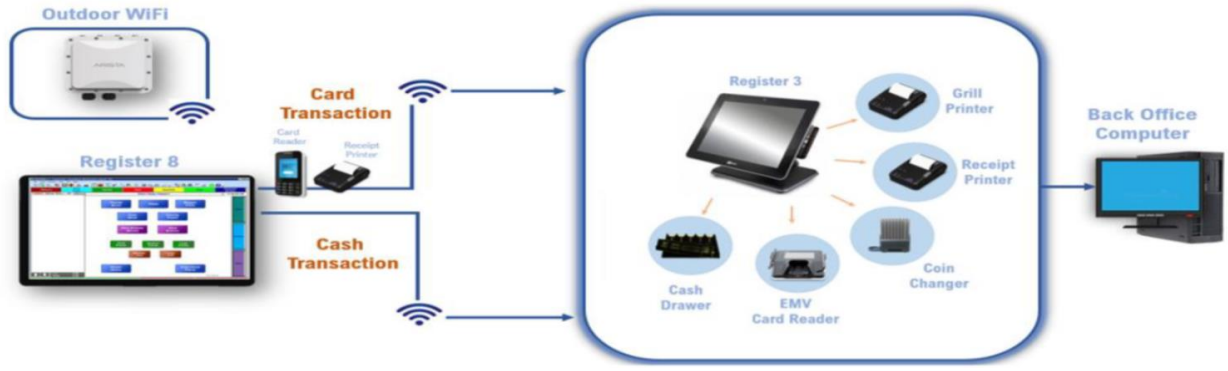




EQUIPMENT AND ACCESSORIES [CONTINUED]

- One (1) Outdoor WiFi access point
  - Each store outfitted with 1 unit and 2 if needed

How information is transferred



Headset worn by associates outside to communicate with associates in the store as needed

Additional Accessories

Associate Safety Vest

Shade and Shelter

Barco Uniform Jacket

EQUIPMENT AND ACCESSORIES [CONTINUED]

ISSUES	RESPONSE
Issues with store WAPS/Connectivity	WAPS connect to the HP switch at the manager's station. Verify that Cat5 cable from WAP and external cable to switch is secure on power adapter. Power cycle WAP by disconnecting power on triplite power adapter. If you are unsure, call PAWS.
EMV device and printer not synched with tablet	Log off and back onto the register tablet. Powercycle the EMV or printer, note it may take 5 minutes to reboot. If your device requires pairing, tap "yes" on the pop-up message. You will be required to key in the pairing code on the handheld EMV.
EMV device powers off	The EMV device is charged by a USB-C connection. It is likely that the device was not charged properly. Try charging, then call PAWS to request a replacement from the staging team.
Tablet "failed to connect to device"	Tablets run on the same software as the normal POS registers. If you see this message pop up on the tablet, it is likely that the tablet and EMV reader is not synched. After you have powered off the devices turn one on at a time in the following order 1. EMV 2. Mobile Printer 3. Tablet
Where can I order more printer paper?	Amazon.com : Freccia Rossa Market 2 1/4" X 50' Credit Card Thermal Paper, 50 Rolls (CORE 50 Rolls) : Calculator And Cash Register Paper : Office Products
Should I turn off my tablet overnight?	No, the tablets go into sleep mode and will need to be on for updates

STAFFING AND DEPLOYMENT

Number of additional associates (positions can be combined to meet business needs) to operate L2.

- 2 order takers, 1 dedicated to L2
  - 1 indoor and 1 outdoor L2

    OR
  - 2 outdoor at the OCB

- 1 dedicated fulfiller inside
- 1 dedicated runner

Order taker and Cashier	Order Fulfiller	Outside Runner
• Takes orders for lane 2 ONLY • Settles all payments with tablet and accepts CC. Cash will need to be settled at register 3 inside the store. • Best case scenario is that guest has prepaid via CC by a line busting unit	• Once the grill ticket has been printed the associate will fulfill the order by grabbing the ticket to pack items accordingly • Prepare any drinks or condiments as needed	• Deliver the guest order by walking out to the second lane • Accept payment as needed

STAFFING AND DEPLOYMENT [CONTINUED]

Factors to consider when determining the deployment

- Associate and guest safety remains the highest priority
- Manage the amount of time the associate spends in a single position
- ONLY deploy associates if the weather conditions permit
- Equip associates with gear and or attire that is suitable for outdoor conditions
- Ensure that all safety markings and signs are visible
- Be confident that your kitchen staff and food callers are prepared to intake increasing number of orders
- Communicate to the associates that will be positioned outdoors ahead of time if possible

Before Deploying *make sure*…

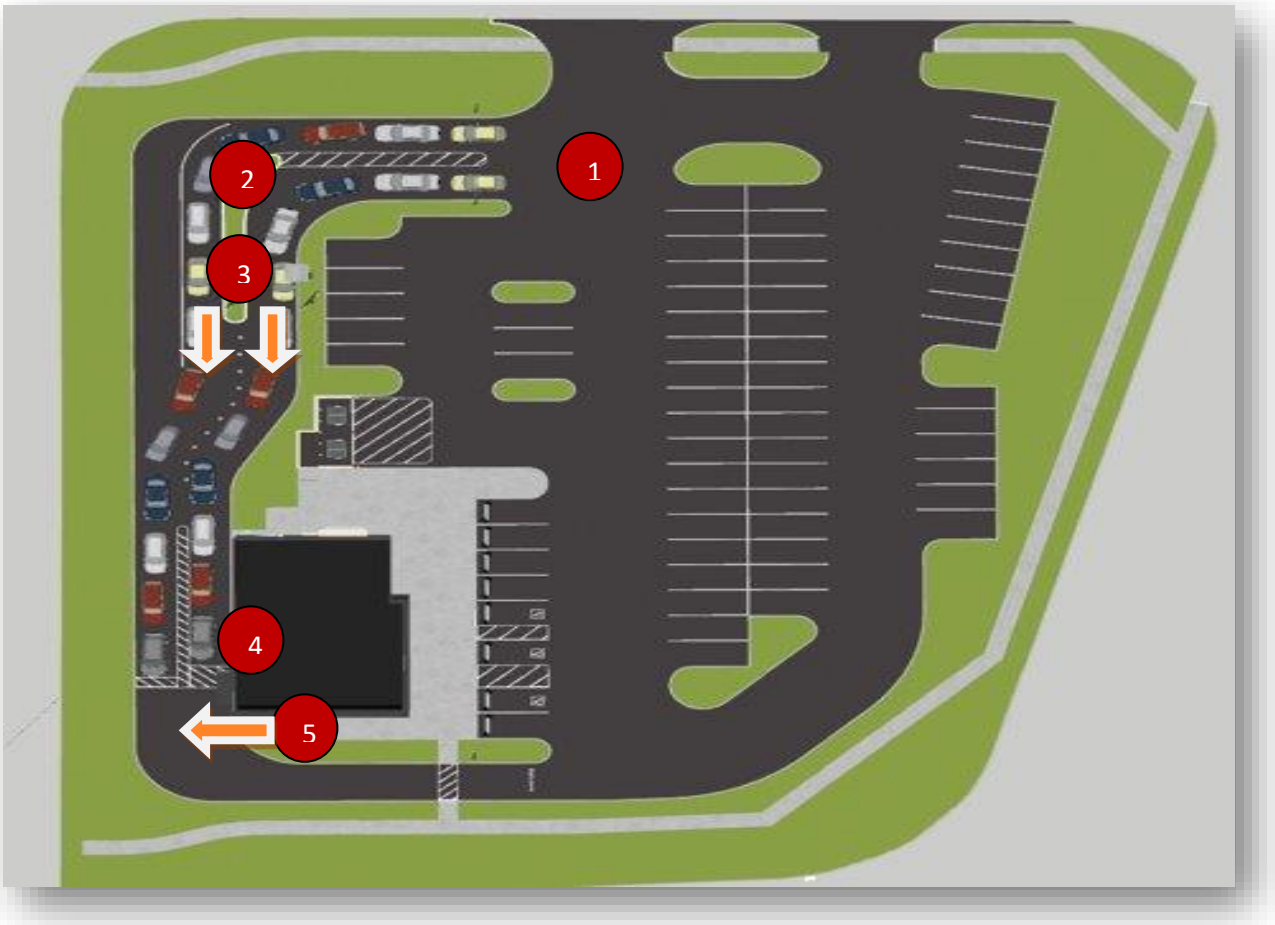
- devices are sufficiently charged and working
- card readers and printers are synchronized and connected to the right device

Deployment based on associates dedicated to servicing L2

One	Two	Three	Four	Five
Recommend to NOT operate L2 until there is at least 2 dedicated associates	1st associate takes and fulfill orders 2nd associate settles cc payment at L2 and hands food to guest	1st associate takes orders 2nd associate fulfills orders 3rd associate settles cc payment at L2 and hands food to guest	1st associate takes orders and cc payment outside at OCB L2 2nd associate fulfills order 3rd associate supports order fulfillment (delivers to pulled cars) 4th associate will primarily hand food to guest in L2	1st associate takes orders and cc payment outside at OCB L2 2nd associate takes orders and cc payment outside at OCB L1 3rd associate fulfills orders for L2 4th associate supports order fulfillment for L1 & L2(delivers to pulled cars) 5th associate will primarily hand food to guest in L2

GUEST JOURNEY

1. Guest will enter L1 or L2
2. Guest greeted promptly when arriving at the OCB board speaker or by an associate taking the order from a tablet
3. Guest will proceed in the travel path that they were instructed by either signage or Panda associate instructions
4. L1 guest will provide payment (if not yet settled) and wait until their receipt or change has been handed to them
5. L2 guest will be greeted by a runner for with their order



EXECUTION

1. Timely greet the guest and obtain a name to reference the order

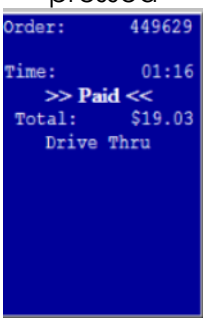
- *"Welcome to Panda, can I get a name for your order?"*

2. Take the order and enter into the dedicated order taking device
   Select Drive Thru Expo>>Type in name>>Select car color and type>>enter order>>send to register 3>> settle CC payment [merge all other payments to L1}

Paid by Debit or CC

Opted to pay by cash, BMG or gift card

Paid orders will remain on R3 until "delivered" is pressed



3. Order fulfiller will gather all the items based on the grill ticket that was sent to the printer
4. L2 Runner will obtain items either left on the designated area for completed orders or directly from the associate who fulfilled the order. Runner may need to complete fulfillment from time to time

MANAGING PEAK AND NON-PEAK PERIODS

Your business will fluctuate throughout the day depending on your location. Identify the peak business blocks to plan on executing the double lane option.

Peak volume block:

- Deploy at least 3 associates dedicated to service L2
- Avoid having associates multi task
- If possible, the runner and food packer should not wear headsets
- Taking cash in L2 is not recommended for safety and optimization reasons and it is highly recommended that associates outside clearly communicate to merge cash paying guests to L1

Non-peak volume block:

- Close off L2 with removable stanchions to direct all incoming orders to L1
- Charge all devices

DOUBLE LANE OPTIMIZATION AND BEST PRACTICES

Before you execute

- Check to see if your equipment is fully charged
- Make sure that your equipment has a good WiFi signal to process payment timely
    - NOTE: if you take orders far down the stack, you may experience a lag or delay
- Submit a ticket by calling PAWS immediately once you have discovered that your equipment is not functioning properly. Be sure to specify the exact piece of equipment you wish to troubleshoot
- Check portable printer for sufficient paper supply
- Inform the associate of their position when planning to open L2
- Ensure conditions are safe for associates to be outside
- Make sure your store is well staffed inside your FOH and BOH

During execution

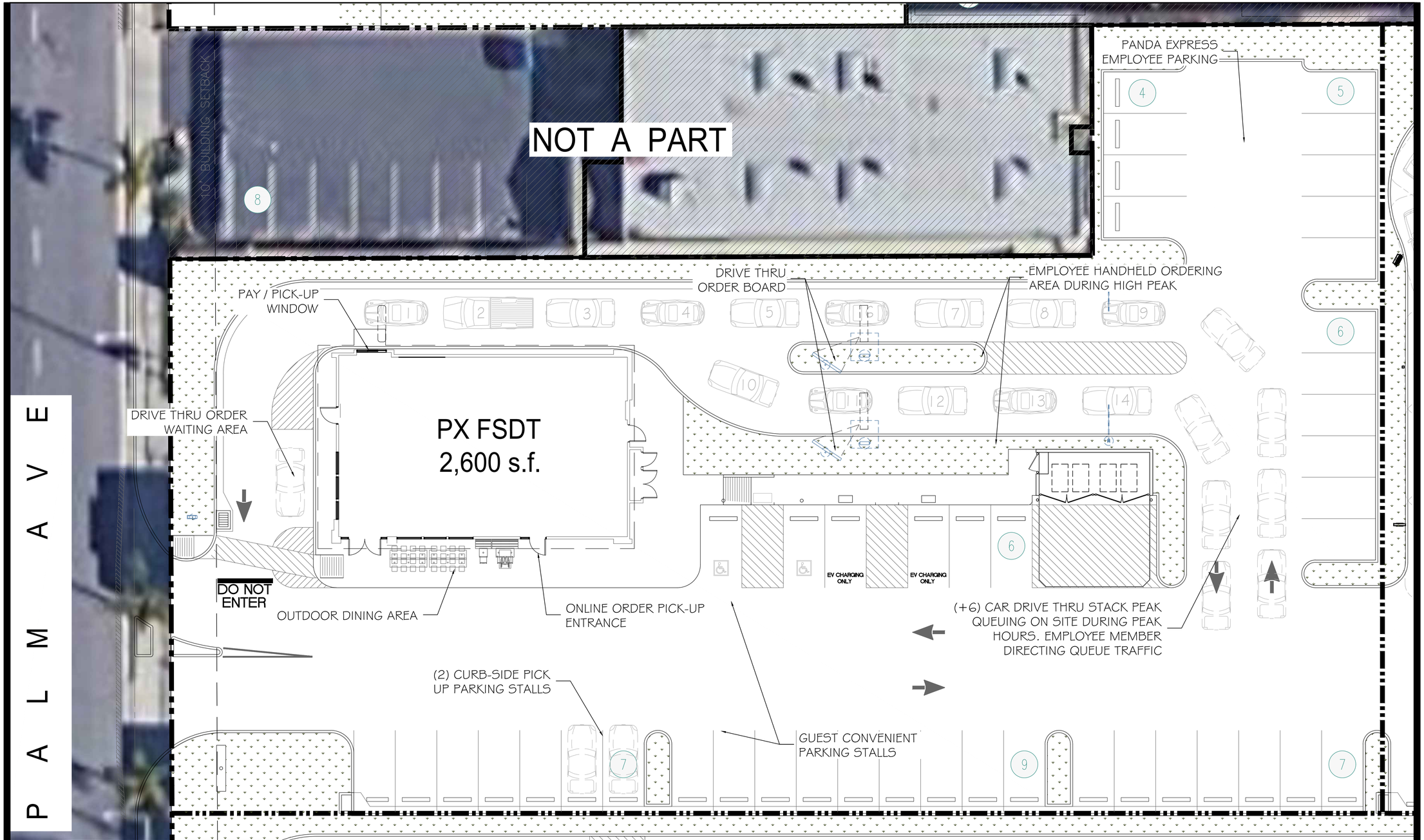
- When taking orders on the tablet, identify lanes by putting a number 1 or 2 after typing in the guest's name
- Provide advance notice for large orders or unpopular items through the headset (stay connected in communication with the inside production team)
- Close and minimize gaps in the stack by walking and talking to the guest
- Have a condiment and paper goods set up for last minute requests
- Ask for donations while accepting payment outside

End of shift

- Charge all equipment by making sure that the devices are properly plugged in with the right connectors

CAQ

Common Questions	Answer
My business does not require lane 2, can I close it?	During non-peak periods you have the option to stanchion off lane to clearly let guest know the lane is closed.
Am I required to use lane 2?	Lane 2 is designed to support traffic and capacity; it is best to use lane 2 if your store has a short stack or when cars are backed up in traffic paths.
Do I have to deploy additional associates to operate lane 2?	Order accuracy and guest experience may potentially be compromised if the associates are multitasking. Your discretion requires assessment when making a this decision.
Who should I contact if I would like to recommend a modification in the SOP or manual?	Contact OpsSupport@pandarg.com
How do I order jackets for my associates?	Jackets can be ordered on ePAWs the same way you order uniforms from Barco.



PANDA EXPRESS OPERATION AND OVERSTACK PROCEDURE

The double lane drive thru is designed to support the capacity of increasing throughput in terms of sales volume and car count. It is also designed to elevate the guest's experience in a timely manner.

LEGEND

14 CARS

8 CARS

22 CARS

TRAFFIC MANAGEMENT PLAN | 1

Scale= 1" = 10'-0" | A-100

PANDA EXPRESS, INC.
1683 Walnut Grove Ave.
Rosemead, California
91770
Telephone: 626.799.9898
Facsimile: 626.372.8288

REVISIONS:

1	CITY COMMENTS	03-01-23

ISSUE DATE:

DRAWN BY: MC/RT/MT

PANDA PROJECT #: S8-22-D22300
PANDA STORE #: -
ARCH PROJECT #: -

GARY WANG & ASSOCIATES, INC.
1000 Corporate Center Dr., Suite 550
Monterey Park, CA 91754
TEL: (626) 288-6898 FAX: (626) 768-7101
http://www.garywang.com

PANDA EXPRESS

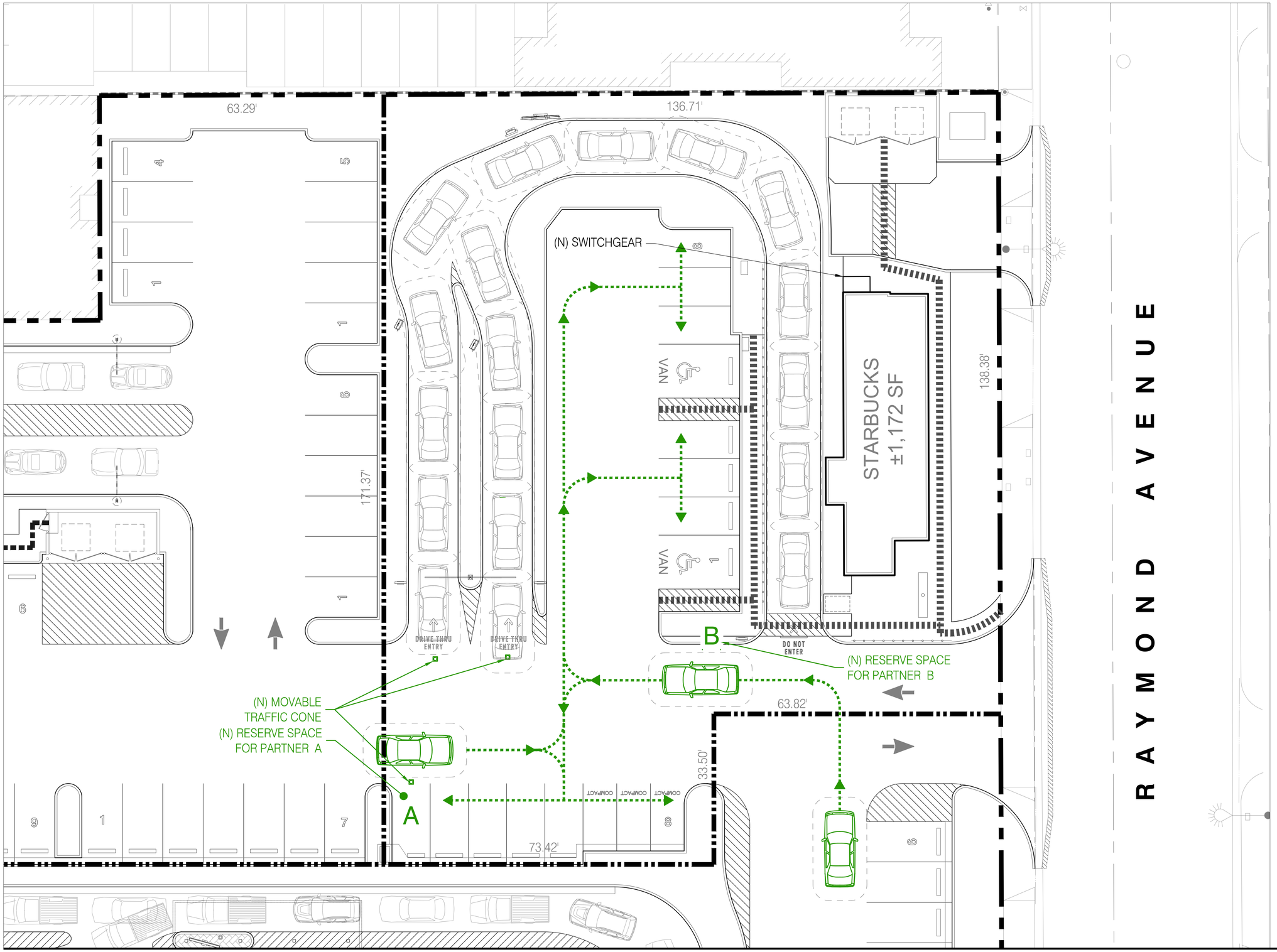
S PALM AVENUE &
PEPPER STREET
ALHAMBRA, CA 91801

A-000

TRAFFIC MANAGEMENT PLAN

ATTACHMENT F

PROPOSED STARBUCKS TRAFFIC MANAGEMENT PLAN



STARBUCKS BUSINESS OPERATIONS AND OVERSTACK PLAN

STARBUCKS IS PROPOSING A NEW +/-1,172 SF DRIVE-THROUGH ONLY BUILDING (NO INTERIOR OR EXTERIOR SEATING) WITH WALK-UP WINDOW INTENDED FOR MOBILE ORDER PICK-UP SERVICE WITH ASSOCIATED SITE IMPROVEMENTS.
STARBUCKS IS PART OF JOINT DEVELOPMENT WITH PANDA EXPRESS AND RAISING CANES.

DRIVE-THROUGH PEAK HOURS FOR STARBUCKS ARE PRIMARILY ANTICIPATED BETWEEN 7AM-10.30 AM ALL DAYS OF THE WEEK.

BASED ON "DRAFT FOCUSED TRAFFIC ANALYSIS - PALM & PEPPER COMMERCIAL PROJECT, CITY OF ALHAMBRA" PREPARED BY KOA AND DATED OCTOBER 2022, OBSERVED MAXIMUM NUMBER OF CARS AT COMPARABLE STORES AT PEAK HOURS DOES NOT EXCEED 12 CARS.

PROPOSED PLAN PROVIDES 17 CAR DRIVE-THROUGH CAPACITY WHICH CAN ACCOMMODATE ALL ANTICIPATING PEAK QUEUING ON SITE DURING PEAK HOURS.
ALSO, PARKING PROVIDED FOR STARBUCKS EXCEEDS JURISDICTIONAL REQUIREMENTS (REQ 10 SPACES, PROVIDED 16 SPACES).
NEVERTHELESS, IN CASE OF EVENT THAT DESIGNATED DRIVE-THROUGH LANES ARE AT MAXIMUM CAPACITY, STARBUCKS MAY DEPLOY TRAFFIC CONES, AND A PARTNER AT IDENTIFIED POINTS (A) AND (B) TO FACILITATE ONSITE CIRCULATION.

SPECIFICALLY, IF BOTH DRIVE-THROUGH LANES ARE AT CAPACITY, TRAFFIC CONES WILL BE PLACED @ THE ENTRY SIGNALING CUSTOMERS THAT DRIVE-THROUGH OPERATIONS ARE CLOSED FOR THE TIME BEING.
STARBUCKS PARTNER (A) WILL PRIMARILY ASSIST EAST BOUND TRAFFIC AND PARTNER (B) WILL PRIMARYLY ASSIST WEST AND NORTH BOUND TRAFFIC TO DIRECT CUSTOMERS TO PARK WHERE AVAILABLE (SHOWN IN GREEN ON THE DIAGRAM), ORDER VIA MOBILE ORDER AND WALK UP TO STORE TO PICK-UP THEIR ORDER.

GREENBERG FARROW CONTACTS
PROJECT MANAGER & SITE DEV. COORDINATOR — I.IBRAHIMBEGOVIC

4695 MacArthur Court
Suite 1450
NEWPORT BEACH, CA 92660
T:949 296 0450

TRUE NORTH

SCALE: 1"=10'-0"
0 5 10 20 30 40

STARBUCKS
PALM & PEPPER (RAYMOND & PEPPER)
ALHAMBRA, CA

TRAFFIC MANAGEMENT PLAN

20220950.0 | 08.15.2023

APPENDIX J

RESPONSES TO TRAFFIC COMMENTS ON THE FOCUSED TRAFFIC ANALYSIS DATED DECEMBER 12, 2023

A LOCHNER COMPANY
300 Corporate Pointe, Suite 470, Culver City, CA 90230
T: (310) 473-6508 | F: (310) 444-9771 | www.koacorp.com
MONTEREY PARK ORANGE ONTARIO SAN DIEGO CULVER CITY

PALM & PEPPER COMMERCIAL PROJECT
CITY OF ALHAMBRA
RESPONSES TO TRAFFIC COMMENTS ON THE FOCUSED TRAFFIC ANALYSIS (DECEMBER 12, 2023)

TRAFFIC COMMENTS ON FOCUSED TRAFFIC ANALYSIS
Public Works: Traffic Engineering

TRAFFIC COMMENT 1
Revise the Focused Traffic Analysis from December 2022 to include the "Draft Responses to Traffic Comments on the Focused Traffic Analysis" as an Addendum.

RESPONSE TO TRAFFIC COMMENT 1
The December 2, 2022 *Focused Traffic Analysis* (FTA) prepared for the proposed Palm & Pepper commercial project (the "Project") has been revised to include the August 21, 2023 *Draft Responses to Traffic Comments on the Focused Traffic Analysis* technical memorandum as an Appendix. This December 8, 2023 *Responses to Traffic Comments on the Focused Traffic Analysis* technical memorandum has also been included as an Appendix to the FTA.

TRAFFIC COMMENTS ON FOCUSED TRAFFIC ANALYSIS
Planning
The Planning comments were provided in the form of a marked-up version of the FTA, with highlighted areas of concern versus formal narratives. Therefore, the comments provided below represent implicit interpretations of the highlighted text.

TRAFFIC COMMENT 2
Verify the Project parking supply.

RESPONSE TO TRAFFIC COMMENT 2
The revised Project site plan is included as ***Attachment A*** to this technical memorandum. As shown in ***Attachment A***, the Project will provide 121 automobile parking spaces across its four parcels. This overall parking supply is approximately 80 percent greater than the off-street automobile parking requirement for the three proposed restaurants, based on the City's Municipal Code § 23.52.040. Further, the automobile parking supply proposed for each restaurant/parcel will exceed its associated City Municipal Code requirement, as shown in ***Table 1***. Parcel 1 will include 44 automobile parking spaces, and the proposed Panda Express restaurant with drive-through window requires 25 parking spaces. Parcel 2 will contain 49 automobile parking spaces, and the proposed Raising Cane's with drive-through window requires 32 parking spaces. Finally, Parcel 3 will provide 16 automobile parking spaces, and the proposed Starbucks coffee shop with drive-through window requires 10 parking spaces. Given that the City's Municipal Code off-street parking requirement addresses the parking demands of both customers and employees, the proposed parking supply is expected to satisfy the Project's

parking demands without causing adverse spillover effects to neighboring roadways. Parcel 4 will provide additional employee parking for the three restaurants.

Table 1: Project Automobile Parking Requirement and Supply

Restaurant	Building		Outdoor Dining		Total Required Parking	Provided Parking
	Gross Floor Area (sf)	Required Parking[1]	Gross Floor Area (sf)	Required Parking[1]		
Panda Express / Parcel 1	2,700	23	219	2	25	44
Raising Cane's / Parcel 2	3,181	27	602	5	32	49
Starbucks / Parcel 3	1,172	10	0	0	10	16
Employee Parking / Parcel 4	--	--	--	--	--	12
Total	*7,053*	*60*	*821*	*7*	*67*	*121*
Notes: [1] Per the City of Alhambra Municipal Code Section 23.52.040.						

TRAFFIC COMMENT 3

Update the Project site plan.

RESPONSE TO TRAFFIC COMMENT 3

The revised Project site plan is included as ***Attachment A***. As shown in ***Attachment A***, there has been a slight change in the size of the proposed Panda Express restaurant. The building is now proposed to have 2,700 square feet of gross floor area, whereas the analysis in the December 2, 2022 FTA evaluated a 2,600 square-foot Panda Express. In order to determine the effect of this slight increase in the restaurant building floor area on potential transportation access and circulation, the Project trip generation calculations have been revised and are included in ***Table 2***. As shown in ***Table 2***, the minor increase in building floor area would result in no change in the Project's net trip generation during the AM peak hour and result in an increase of one vehicle trip during the PM peak hour (from 85 to 86 net vehicle trips). Given the negligible change in net Project trip generation estimates, the modification to the Panda Express building's floor area would not alter any of the conclusions in the FTA. Due to the aforementioned change to the Panda Express building, the Panda Express on-site Traffic Management Plan (TMP) has also been updated and is provided in ***Attachment B***.

TRAFFIC COMMENT 4

Verify the Project automobile parking requirement and supply.

RESPONSE TO TRAFFIC COMMENT 4

See Response to Traffic Comment 2.

TRAFFIC COMMENT 5

Confirm the backup space for the employee parking provided on Parcel 4.

RESPONSE TO TRAFFIC COMMENT 5

The revised Project site plan is included as ***Attachment A***. As shown in ***Attachment A***, the Project will provide a total of 25 feet of backup space between the parking spaces and the northern edge of the site. An 8-foot wide painted shoulder adjacent to the property north of the Parcel 4 would provide an additional buffer for employee vehicles maneuvering in and out of the 12 parking spaces provided on Parcel 4.

Table 2: Project Weekday Trip Generation Summary[1]

Land Use/Trip Type	ITE Code	Intensity[2]	Average Weekday	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Generation Rates									
Warehousing/Vehicle	150	1 ksf	1.71	77%	23%	0.17	28%	72%	0.18
Fine Dining Restaurant/Vehicle	931	1 ksf	83.84	NA	NA	0.73	67%	33%	7.80
Fast-Food Restaurant with Drive-Through Window/Vehicle	934	1 ksf	467.48	51%	49%	44.61	52%	48%	33.03
Coffee/Donut Shop with Drive-Through Window and No Indoor Seating/Vehicle	938	1 dtl	179.00	50%	50%	39.81	50%	50%	15.08
Trip Generation Summary									
Description		**Size**	**Average Weekday**	**AM Peak Hour**			**PM Peak Hour**		
				In	Out	Total	In	Out	Total
Proposed Uses									
Restaurant									
Fast-Food Restaurant with Drive-Through Window Baseline Vehicle Trips[3]		2.700 ksf	1,262	4	4	8	46	43	89
Pass-By Adjustment[4]			(631)	0	0	0	(25)	(24)	(49)
Fast-Food Restaurant with Drive-Through Window Total			631	4	4	8	21	19	40
Fast-Food Restaurant with Drive-Through Window Baseline Vehicle Trips[3]		3.181 ksf	1,487	5	5	10	55	50	105
Pass-By Adjustment[4]			(743)	0	0	0	(30)	(28)	(58)
Fast-Food Restaurant with Drive-Through Window Total			744	5	5	10	25	22	47
Coffee/Donut Shop with Drive-Through Window and No Indoor Seating Vehicle Trips		2 dtl	358	40	40	80	15	15	30
Pass-By Adjustment[5]			(322)	(36)	(36)	(72)	(15)	(14)	(29)
Coffee/Donut Shop with Drive-Through Window and No Indoor Seating Total			36	4	4	8	0	1	1
Proposed Project Total External Trips by Vehicle (incl. Pass-By Trips)			**3,107**	**49**	**49**	**98**	**116**	**108**	**224**
Proposed Project Total External Project Trips by Vehicle			**1,411**	**13**	**13**	**26**	**46**	**42**	**88**
Existing Use									
Industrial									
Warehouse Vehicle Trips		10.000 ksf	17	2	0	2	1	1	2
Pass-By Adjustment[6]			0	0	0	0	0	0	0
Warehouse Total			17	2	0	2	1	1	2
Existing Project Driveway Trips (incl. Pass-By Trips)			**17**	**2**	**0**	**2**	**1**	**1**	**2**
Existing Project Trips			**17**	**2**	**0**	**2**	**1**	**1**	**2**
Net Project Driveway Trips (including Pass-By Trips)			**3,090**	**47**	**49**	**96**	**115**	**107**	**222**
Net Project Trips			**1,394**	**11**	**13**	**24**	**45**	**41**	**86**

Notes:

[1] ITE *Trip Generation Manual* (11th Edition, 2021) trip generation rates and directional distributions were applied for Land Use Code 150 (Warehousing), Land Use Code 934 (Fast-Food Restaurant with Drive-Through Window), and Land Use Code 938 (Coffee/Donut Shop with Drive-Through Window and No Indoor Seating) to develop baseline vehicle trip estimates for the existing and proposed land uses. The General Urban/Suburban setting was selected as most appropriate for the Project location. Transit and walk/bicycle trip adjustments were conservatively not applied to the baseline vehicle trip calculations.

[2] ksf = Thousands of Square Feet of Gross Floor Area; dtl = Number of Drive-Thru Lanes.

[3] ITE *Trip Generation Manual* (11th Edition, 2021) trip rates for Land Use Code 934 (Fast-Food Restaurant with Drive-Through Window) have been developed based on fast-food restaurants providing breakfast service. As the Project's proposed fast-food restaurants will not serve breakfast, the AM peak-hour trip rate for Land Use Code 934 is inappropriate for the proposed fast-food restaurant uses. In order to estimate the weekday AM peak-hour trip generation for these uses, the relationship between AM and PM peak-hour trip rates was reviewed for Land Use Code 931 (Fine Dining Restaurant), as this land use's trip rates are based on surveys of restaurants that generally do not serve breakfast. An AM-to-PM peak-hour factor was developed using the Fine Dining Restaurant trip generation rates and applied to the PM peak-hour trip generation rate for the Fast-Food Restaurant with Drive-Through Window uses to determine the (employee-only) AM peak-hour trip generation estimates for the proposed fast-food restaurants.

[4] Per the appendices of the ITE *Trip Generation Manual* (11th Edition, 2021), a 55 percent pass-by trip rate has been assumed for the proposed Fast-Food Restaurant use during the weekday PM peak hour. As the proposed Fast-Food Restaurant uses will not provide breakfast service, no pass-by trip reduction was applied during the AM peak hour. A daily pass-by trip rate of 50 percent was conservatively assumed.

[5] Per the appendices of the ITE *Trip Generation Manual* (11th Edition, 2021), 90 percent and 98 percent pass-by trip rates have been assumed for the proposed Coffee/Donut Shop with Drive-Through Window use during the weekday AM and PM peak hours, respectively. A daily pass-by trip rate of 90 percent was conservatively assumed.

[6] No pass-by trips were assumed for the existing warehousing land use.

TRAFFIC COMMENTS ON FOCUSED TRAFFIC ANALYSIS
Fire Department

TRAFFIC COMMENT 6
Provide a revised conceptual site/pumper fire truck maneuvers plan (Attachment B). The revised plan shall show a minimum 28' turning radius at the center driveway on Palm Avenue (both to the north of the proposed porkchop [site egress] and to the south of the proposed porkchop [site ingress]). Additionally, please show a minimum 28' turning radius in the drive aisle located at the southeast corner of the project site (adjacent to the Raising Cane's drive-thru entrance).

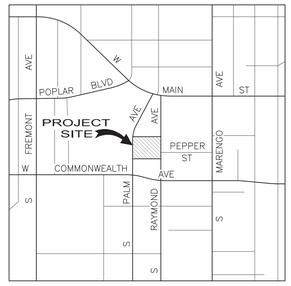
RESPONSE TO TRAFFIC COMMENT 6
The revised conceptual pumper fire truck maneuvers plan is provided as Attachment C. The revised plan incorporates the latest site plan as a base and contains the relevant overlays representing the appropriate 28-foot turning radius template on both sides of the center driveway on Palm Avenue, as well as in the drive aisle at the southeast corner of the site (adjacent to the Raising Cane's drive-through lane entrance).

ATTACHMENT A

PROJECT SITE PLAN

SITE PLAN
TENTATIVE PARCEL MAP NO. 84017

126, 132 & 146 SOUTH PALM AVENUE
127 SOUTH RAYMOND AVENUE
2018 TEAGARDEN LANE
APN: 5342-022-033, -034, -035, -036, -053 & -054
IN THE CITY OF ALHAMBRA
COUNTY OF LOS ANGELES, STATE OF CALIFORNIA



VICINITY MAP
(NO SCALE)

PROJECT SUMMARY:

OWNER:	ALHAMBRA PALM LTD 1683 WALNUT GROVE AVENUE ROSEMEAD, CA 91770
DEVELOPER:	CFT NV DEVELOPMENTS, LLC CHARLIE.SHEN@PANDARG.COM (626) 372-8122
ENGINEER:	LAND DEVELOPMENT CONSULTANTS 1520 BROOKHOLLOW DRIVE, SUITE 33 SANTA ANA, CA 92705 (714) 557-7700
PROJECT LOCATION:	126, 132 & 146 SOUTH PALM AVENUE 127 SOUTH RAYMOND AVENUE 2018 TEAGARDEN LANE ALHAMBRA, CA 91801
APNs:	5342-022-033, -034, -035, -036, -053 & -054

PROJECT SITE AREA:	117,996 SF = 2.709 ACRES	
STREET DEDICATION AREAS:	140 SF = 0.003 ACRES	
PROJECT SITE AREA (AFTER STREET DEDICATIONS):	117,856 SF = 2.706 ACRES	(100.0%)
PARCEL 1 AREA: (PANDA EXPRESS)	34,933 SF = 0.802 ACRES	(30% OF TOTAL)
PARCEL 2 AREA: (RAISING CANE'S)	53,550 SF = 1.229 ACRES	(45% OF TOTAL)
PARCEL 3 AREA: (STARBUCKS)	21,377 SF = 0.491 ACRES	(18% OF TOTAL)
PARCEL 4 AREA: (EMPLOYEE PARKING)	7,996 SF = 0.184 ACRES	(7% OF TOTAL)

PARCEL 1 PARKING:

REQUIRED:	23 SPACES (1 SPACE / 120 SF) -- BUILDING =2,700 SF	
REQUIRED:	2 SPACES (1 SPACE / 120 SF) -- OUTDOOR DINING =219 SF	
PROVIDED:	44 SPACES	

PARCEL 2 PARKING:

REQUIRED:	27 SPACES (1 SPACE / 120 SF) -- BUILDING =3,181 SF	
REQUIRED:	5 SPACES (1 SPACE / 120 SF) -- OUTDOOR DINING =602 SF	
PROVIDED:	49 SPACES	

PARCEL 3 PARKING:

REQUIRED:	10 SPACES (1 SPACE / 120 SF) -- BUILDING =1,172 SF	
PROVIDED:	13 SPACES (STANDARD)	
PROVIDED:	3 SPACES (COMPACT)	

PARCEL 4 PARKING:

PROVIDED: 12 SPACES

FLOOR AREA, (FAR) AND BUILDING HEIGHT:

(PARCEL #) & BUILDING	GROSS FLOOR AREA	FLOOR AREA RATIO (FAR)	BUILDING HEIGHT
(P#1) PANDA EXPRESS	2,700 SF	0.077	23'-3"
(P#2) RAISING CANE'S	3,181 SF	0.059	21'-4"
(P#3) STARBUCKS	1,172 SF	0.055	20'-0"

LEGEND:

- PROPOSED PARCEL LINE
- PROPOSED CONCRETE
- * PROPOSED ASPHALT
- PROPOSED LANDSCAPE
- AREA TO BE VACATED
- PROPOSED SEWER
- PROPOSED WATER
- ADA PATH OF TRAVEL

* MINIMUM THICKNESS OF 2" OF ASPHALTIC CONCRETE OVER A MINIMUM THICKNESS OF 4" OF A BASE MATERIAL TO BE APPROVED BY THE DIRECTOR OF PUBLIC WORKS, OR WITH A MINIMUM THICKNESS OF 4" OF PORTLAND CEMENT CONCRETE.

ABBREVIATIONS AND EXISTING FEATURES:

AC	ASPHALT PAVEMENT	GB	GRADE BREAK	TX	TOP OF X
AV	AIR VENT	GI	GRATE INLET	UB	UTILITY BOX
BFD	BACK FLOW DEVICE	GM	GAS METER	WM	WATER METER
BW	BACK OF WALK	GP	GUARD POST	WV	WATER VALVE
BX	BOTTOM OF X	GV	GAS VALVE		FIRE HYDRANT
CB	CATCH BASIN	L	LOT LINE		EDGE PAVEMENT
CO	CLEAN OUT	PA	PLANTER AREA		WATER VALVE
DN	DRAIN	PB	PULL BOX		METER, PULL BOX
EG	EDGE OF GUTTER	PED	PEDESTAL		SIGN
EMH	ELECTRIC MANHOLE	PIV	POST INDICATOR VALVE		CONCRETE
EP	EDGE OF PAVEMENT	PL	PROPERTY LINE		BLOCK WALL
EPB	ELECTRONIC PULL BOX	PP	POWER POLE		LIGHT STANDARD
ER	ELECTRICAL RISER	PVT	PT&T VAULT		TRAFFIC SIGNAL
EVT	ELECTRICAL VAULT	R	RAMP		STREET LIGHT
FC	FINISHED CONCRETE	R/W	RIGHT OF WAY		HANDICAP STALL
FDC	FIRE DEPT CONNECTION	SDMH	STORM DRAIN MANHOLE		WROUGHT IRON FENCE
FF	FINISHED FLOOR	SLPB	STREET LIGHT PULL BOX		WOOD FENCE
FH	FIRE HYDRANT	SMH	SEWER MANHOLE		CHAINLINK FENCE
FL	FLOWLINE	TC	TOP OF CURB		
FS	FINISHED FLOOR	TE	TRASH ENCLOSURE		
FW	FRONT OF WALK	TG	TOP OF GRATE		

BENCHMARK:
BENCHMARK NO. 6 (CITY OF ALHAMBRA)
DESCRIPTION: L&T CENTER CURB RETURN SW CORNER OF RAYMOND & COMMONWEALTH AVENUE
ADJUSTED ELEVATION: 496.86 FEET NAD83

BASIS OF BEARINGS:
THE BASIS OF BEARINGS USED ON THIS PLAN IS THE CENTERLINE OF PALM AVENUE BEARING NORTH 00°13'00" WEST AS SHOWN ON SUBDIVISION NO. 1 OF DOLGEVILLE MAP BOOK 5 PAGE 16 RECORDS OF SAID COUNTY.

REVISIONS

NO.	DESCRIPTION	BY	DATE	APPROVED

PREPARED FOR:
CHARLIE SHEN
CFT NV DEVELOPMENTS, LLC
(626) 372-8122
CHARLIE.SHEN@PANDARG.COM

REGISTERED PROFESSIONAL ENGINEER — MICHAEL HOUSTON PENG — No. 44560 — Exp. 3-31-2024 — CIVIL — STATE OF CALIFORNIA

LDC LAND DEVELOPMENT CONSULTANTS
LAND PLANNERS · SURVEYORS · CIVIL ENGINEERS
1520 BROOKHOLLOW DRIVE, SUITE 33
SANTA ANA, CALIFORNIA, 92705
(714) 557-7700 (714) 557-7707 FAX

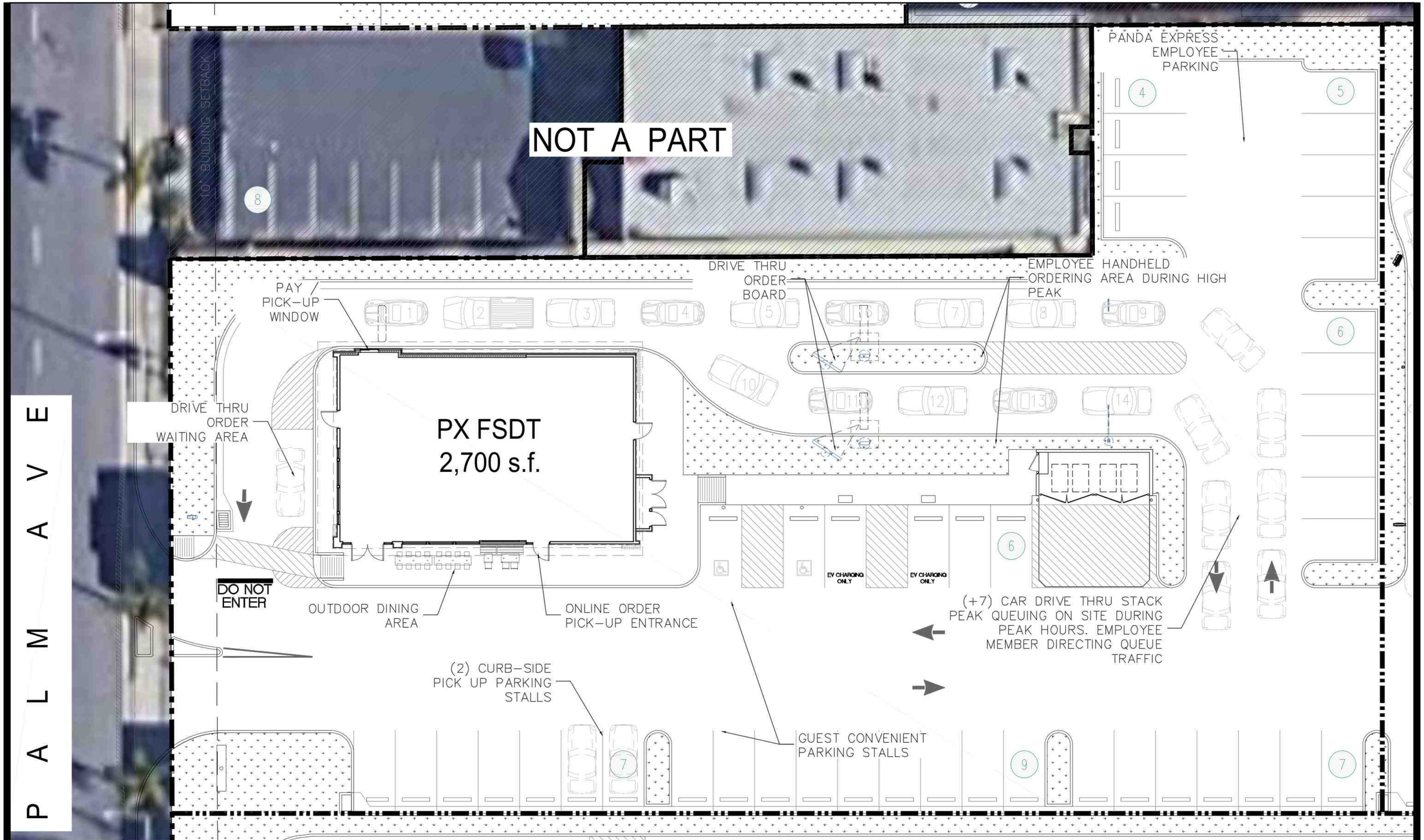
DATE: 11-16-23
SCALE: 1"=20'
DRAFTED: SZ
CHECKED: HZ

SITE PLAN
TENTATIVE PARCEL MAP NO. 84017
APN: 5342-022-033, -034, -035, -036, -053 & -054
ALHAMBRA, CA 91801

SHEET 1 OF 1
JOB NO. 622

ATTACHMENT B

PROPOSED PANDA EXPRESS ON-SITE TRAFFIC MANAGEMENT PLAN



PANDA EXPRESS OPERATION AND OVERSTACK PROCEDURE

The double lane drive thru is designed to support the capacity of increasing throughput in terms of sales volume and car count. It is also designed to elevate the guest's experience in a timely manner.

LEGEND

14 CARS

8 CARS

22 CARS

TRAFFIC MANAGEMENT PLAN 1

Scale= 1" = 10'-0" A-100

PANDA EXPRESS, INC.
1683 Walnut Grove Ave.
Rosemead, California
91770
Telephone: 626.799.9898
Facsimile: 626.372.8288

REVISIONS:

1	CITY COMMENTS	03-01-23

ISSUE DATE:

DRAWN BY: MC/RT/MT

PANDA PROJECT #: S8-22-D22300
PANDA STORE #: -
ARCH PROJECT #: -

GARY WANG & ASSOCIATES, INC.
1000 Corporate Center Dr., Suite 550
Monterey Park, CA 91754
TEL: (626) 288-6898 FAX: (626) 768-7101
http://www.garywang.com

PANDA EXPRESS

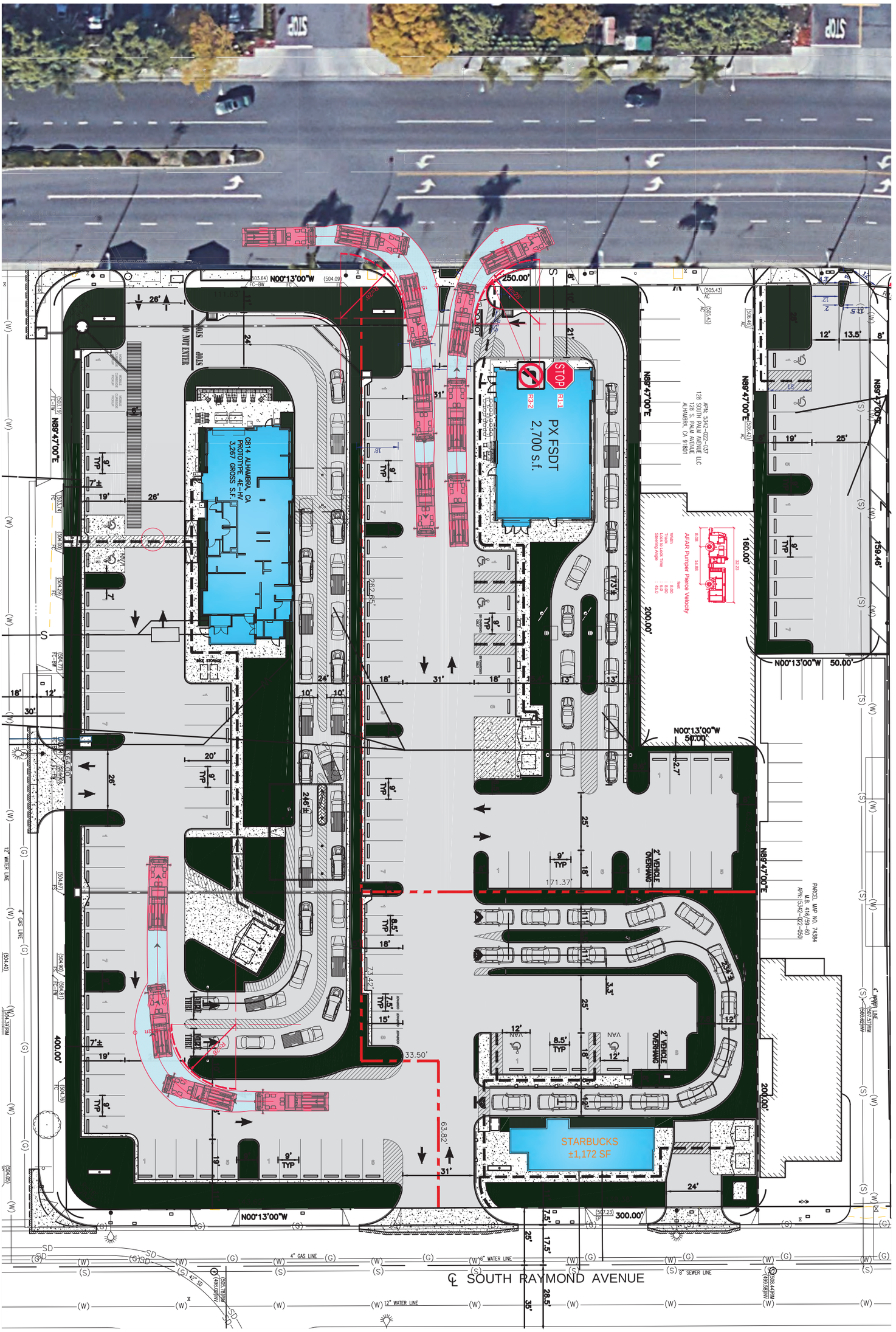
S PALM AVENUE &
PEPPER STREET
ALHAMBRA, CA 91801

A-000

TRAFFIC MANAGEMENT PLAN

ATTACHMENT C

PUMPER FIRE TRUCK MANEUVERS PLAN



ATTACHMENT C

12/11/2023

PUMPER FIRE TRUCK MANEUVERS PLAN

KOA
A LOCHNER COMPANY
300 Corporate Pointe, Suite 470
Culver City, California 90230
Ph (310) 473 6508 F (310) 444 9771
WWW.KOACORP.COM

Raising Cane's Restaurant #0814

2050 Pepper St, Alhambra, CA 91801

On-Site Traffic Management Plan

Date Prepared: August 2023

INTRODUCTION

This On-Site Traffic Management Plan (TMP) has been prepared for the proposed Raising Cane's restaurant at Palm and Pepper Alhambra, CA 91801. The purpose of this TMP is to develop an ingress/egress traffic circulation, queuing management and operations plan to address both peak and standard traffic circulation and queuing periods. Additionally, the intent of the TMP is to reduce the potential for impacts to the adjacent public Right-of-Way and proposed Retail Center and to provide the City of Alhambra and Raising Cane's mechanisms and guidelines to employ for various stages and phases of on-site traffic operations.

The project site location is shown in its regional setting in Figure 1 hereon.

Figure 1 – Vicinity Map

PROJECT DESCRIPTION

The project site is located at Palm and Pepper in Alhambra, CA 91801, bounded by South Palm Ave to the West, Pepper St to the South and S Reymond Ave to the East. To the North of site is existing commercial/light industrial buildings. Surrounding land uses consist of commercial to the north, east, south, and west.

The existing project site is currently occupied by a multitude of commercial/light industrial buildings surrounded by existing retail and commercial tenants. The project will involve the demolition of the existing buildings and the construction of multiple new commercial buildings,

one of which is a 3,181 square-foot Raising Cane's restaurant building with a dual drive-through and outdoor covered patio area. The operating hours for sit-down and drive-through service will be from 9:00 AM to 3:30 AM, seven days a week.

The proposed project would provide two drive-through lanes. In standard operating conditions, the drive-through lanes would provide two side-by-side entry lanes with two separate order boards, and then merge into a single drive-through lane prior to the pay and pick-up windows. This scenario is demonstrated as Exhibit A herein. Under peak drive-through conditions, the drive-through lane would continue as two side-by-side lanes, providing dual pay and pick-up stations. Crew members will be present to facilitate payment and food pick up. The peak drive through scenario has been operationally broken up into multiple phases of deployment to mitigate traffic impacts. Curbside pick-up parking is provided at the front of the restaurant and may be utilized at any time to further alleviate potential drive through overflow.

The restaurant anticipates employing 55-75 full and part-time employees with an average of 12-15 crew members with 2 managers working per shift. On-site cameras showing exterior activity will be on display inside the restaurant. Kitchen Crewmembers look at the queue to see when they should be prepared to cook and deploy tablet ordering. The restaurant anticipates implementing various other operational features to provide an expeditious drive-through operation, including handheld tablet ordering, mobile ordering and pickup, trained Crewmembers to manage traffic, off duty police officers (as deemed necessary), and parking management – all of which are further described in this TMP.

The TMP is comprised of standard operations and three (3) phase scenarios to be implemented for on-site traffic circulation, queuing management, and operational standards to address the standard and peak special event scenarios. Standard operations are expected to be deployed during typical conditions of the drive-through operations. Phase 1-2 will be implemented to fully contain the peak drive through queue, which typically occurs for 15–20-minute intervals between the hours of 11:30am-1:30pm and 5pm-8pm. Phase 3 is reserved for the "honeymoon/grand opening" phase. This phase is intended to only be needed during the first 90 days of opening and as-needed for special events.

STANDARD – DUAL DRIVE THROUGH LANE TO SINGLE PAY & PICK UP

As mentioned in previous sections of this report, in normal conditions, the drive-through lanes would provide two side-by-side entry lanes and two order boards, and then merge into a single drive-through lane prior to the pay and pick-up windows. This scenario is demonstrated as Exhibit A herein.

- Queue Capacity: 10 vehicles (based on a 24-ft vehicle spacing)
- Minimum of one menu board will operate at all times.

PHASE 1 – DUAL DRIVE THROUGH LANE OPERATIONS

Phase 1 of the TMP illustrates the intended drive-through operation under a standard, non-peak scenario when the queue exceeds the capacity of the standard operational condition and the second pay and pick up lane is opened. Refer to Exhibit B.

- Queue Capacity: 17 vehicles (based on 24-foot vehicle spacing)
- Minimum of two menu boards will operate at all times.

- When volumes increase, such that there are consistently 2 cars waiting to order, as shown in the Standard Drive Through phase, the second lane will be deployed, and two (2) Crewmembers will be deployed for hand-held tablet ordering.
- Staging for Crewmembers is shown on Exhibit B within the striped areas.

PHASE 2 – DUAL DRIVE THROUGH LANE OPERATIONS AND EXTENDED QUEUE

Phase 2 of the TMP illustrates the intended drive-through operation under a standard, non-peak, and non-special event scenario and additional queuing is required. Refer to Exhibit C.

- Queue Capacity: 27 vehicles (based on 24-foot vehicle spacing)
- Crewmembers taking hand-held tablet orders that have been deployed as described in Phase 1 will continue to be in operation.
- A Crewmember will be dedicated outside and stationed at the pick-up window. This Crewmember will hand the food to patrons in the second drive-thru lane.
- A Crewmember will be staged at the drive through entrance directing customers into each line to distribute the queue to optimize queue storage and drive-through efficiency.
- Mobile orders will be required to use the designated mobile order pickup stalls located south of the restaurant.
- Tailgate orders (large party-sized orders) will not be permitted for drive-through customers.

PHASE 3 – ADDITIONAL QUEUE STACKING FOR SPECIAL OR HIGH-VOLUME EVENTS

Phase 3 of the TMP illustrates the intended drive-through operation under a peak or special event scenario where the drive through queue exceeds onsite capacity of the dedicated queuing lanes. This phase of the TMP is considered a “grand opening/honeymoon scenario” for the proposed restaurant and is not expected to be needed on a regular basis. Based on average peak-hour drive thru queue data gathered from surrounding Cane’s Restaurants during COVID, drive-thru only operations, the drive through queue is not anticipated to exceed a maximum of 25 cars. The peak drive-thru queue is expected to be fully contained within the Raising Cane’s parcel limits and be fully managed as shown in Phase 2. Raw onsite queue counts are included in this report for reference. Given the information, phase 3 is not intended to be deployed on a regular basis. Overflow queue will stack in the drive aisle east of the proposed drive through lanes and off-duty police officers or crew members will manage traffic circulation in the surrounding streets so that drive through traffic enters the site from Raymond Avenue. This intent of this, it to mitigate drive thru queue/congestion on Palm Avenue, which is a major arterial road. During this phase, an additional crewmember with a hand-held directional sign will be deployed at the southern drive approach on Pepper Steet to assist in directing drive-through traffic to the northeast drive entrance on South Raymond Avenue. The crew member or off-duty officer will promote efficient traffic circulation in the center and restrict queuing in the east/west drive aisle south of the proposed restaurant. Parking spaces on the east side of the site are set aside from the main parking area. These parking spaces will be designated for Cane’s employee parking during these peak hours. The over-flow queue is not intended to have negative impacts to costumers’ access to the surrounding tenants and is not expected to impede or block the center’s fire access lane. Refer to Exhibit D.

- Queuing Capacity: 31 vehicles
- Crewmember deployment would remain as described in Phase 2

- An off-duty police officer or crew member will be deployed and staged at the proposed entrance northeast of the proposed Raising Cane's parcel to control traffic and prevent patrons from queuing in the main drive aisle of the proposed center. The goal would be to redirect queue to the entrance off Raymond Avenue until there was sufficient queue capacity available onsite.
- An off-duty police office or crew member will be staged at the southwest most drive approach on South Palm Ave to ensure that drive through traffic does not enter at this approach. They would also help manage conflicts with vehicles exiting the drive thru and resolve potential conflicts with vehicles parked in the adjacent stalls.
- An off-duty police officer or crew member will be deployed and staged at the proposed entrance south of the proposed Raising Cane's parcel to control traffic and prevent drive through patrons from entering at this driveway. The goal would be to redirect queue as necessary to the proposed entrance at Raymond Avenue until there was sufficient queue capacity available onsite.
- Mobile orders will continue to be encouraged to use the designated mobile order pickup stalls or additional available parking.
- Tailgate orders, or large, part-sized orders, will not be permitted for drive-through customers.
- On-site security will be employed to help prevent loitering and increase safety for customers and Crewmembers.
- When this phase is anticipated to be deployed, Raising Cane's staff will be encouraged to park in spaces east of the restaurant that may potentially be blocked by queue during this phase.

IMPLEMENTATION

As a part of Crewmember and Restaurant Operator training, this TMP shall be incorporated into their Crewmember training materials. The Restaurant Manager and Area Manager shall be prepared to implement the mechanisms laid out by this TMP. This TMP is subject to change by Raising Cane's as needed once full operations and circulation are understood. Contacts for Restaurant Manager and Area Manager for the implementation of this TMP are as follows:

Name	Title	Phone Number	Email Address
Restaurant Manager 1			
Area Manager			
DRSO			

Should there be any questions regarding the implementation of this TMP, please reach out to the contacts listed above.

TABLE 1

SUMMARY OF DRIVE-THROUGH QUEUING DATA COLLECTION
RAISING CANE'S - TYPICAL WEEKDAY
AVERAGE, 85TH PERCENTILE, AND PEAK QUEUES

Time Period	Number of Drive-through Vehicles in the Queue								
	Average Queue			85th %-ile [1] Queue			Peak Queue		
	Orange	Huntington Beach	Foothill Ranch	Orange	Huntington Beach	Foothill Ranch	Orange	Huntington Beach	Foothill Ranch
Lunch									
11:00-11:15 AM	6.4	1.7	1.1	8.0	3.0	2.0	8	3	3
11:15-11:30 AM	6.6	3.8	2.3	8.0	5.0	4.0	9	6	5
11:30-11:45 AM	5.0	3.4	4.0	5.5	4.2	4.0	7	7	6
11:45-12:00 PM	2.6	4.4	6.5	4.0	6.0	9.0	4	7	10
12:00-12:15 PM	6.4	5.0	4.3	7.5	7.0	6.0	8	8	7
12:15-12:30 PM	6.5	8.5	7.0	8.0	12.0	8.0	9	14	9
12:30-12:45 PM	4.8	4.9	7.3	8.2	7.2	9.0	9	9	10
12:45-1:00 PM	10.1	3.4	5.3	11.0	5.0	6.0	12	6	7
1:00-1:15 PM	7.0	7.9	4.2	9.0	10.0	10.0	9	11	7
1:15-1:30 PM	2.5	4.1	6.9	5.0	6.0	10.0	5	6	11
1:30-1:45 PM	4.4	5.1	8.3	6.7	7.0	10.0	7	9	11
1:45-2:00 PM	4.8	3.6	2.9	6.0	5.0	4.0	8	6	4
Highest Value	10.1	8.5	8.3	11.0	12.0	10.0	12	14	11
Dinner									
4:00-4:15 PM	1.5	4.8	2.5	2.3	6.0	3.0	3	7	5
4:15-4:30 PM	6.1	2.2	1.8	8.0	3.5	2.0	8	5	3
4:30-4:45 PM	8.0	2.6	2.5	9.3	5.0	4.0	10	6	5
4:45-5:00 PM	7.0	6.7	2.8	9.3	8.0	4.0	10	10	5
5:00-5:15 PM	6.0	4.7	3.5	7.0	6.2	5.0	8	7	5
5:15-5:30 PM	10.3	7.9	5.0	11.1	11.3	6.9	12	14	8
5:30-5:45 PM	9.4	14.1	10.7	11.0	16.2	14.9	11	18	16
5:45-6:00 PM	2.0	8.9	15.1	3.3	11.0	16.9	4	12	17
6:00-6:15 PM	7.8	8.0	15.8	10.8	11.0	17.0	12	12	19
6:15-6:30 PM	9.9	7.8	15.7	11.4	10.2	17.0	15	13	17
6:30-6:45 PM	13.2	10.5	15.5	14.3	12.0	18.0	15	14	21
6:45-7:00 PM	14.5	10.9	6.9	15.3	13.0	8.9	16	14	11
Highest Value	14.5	14.1	15.8	15.3	16.2	18.0	16	18	21

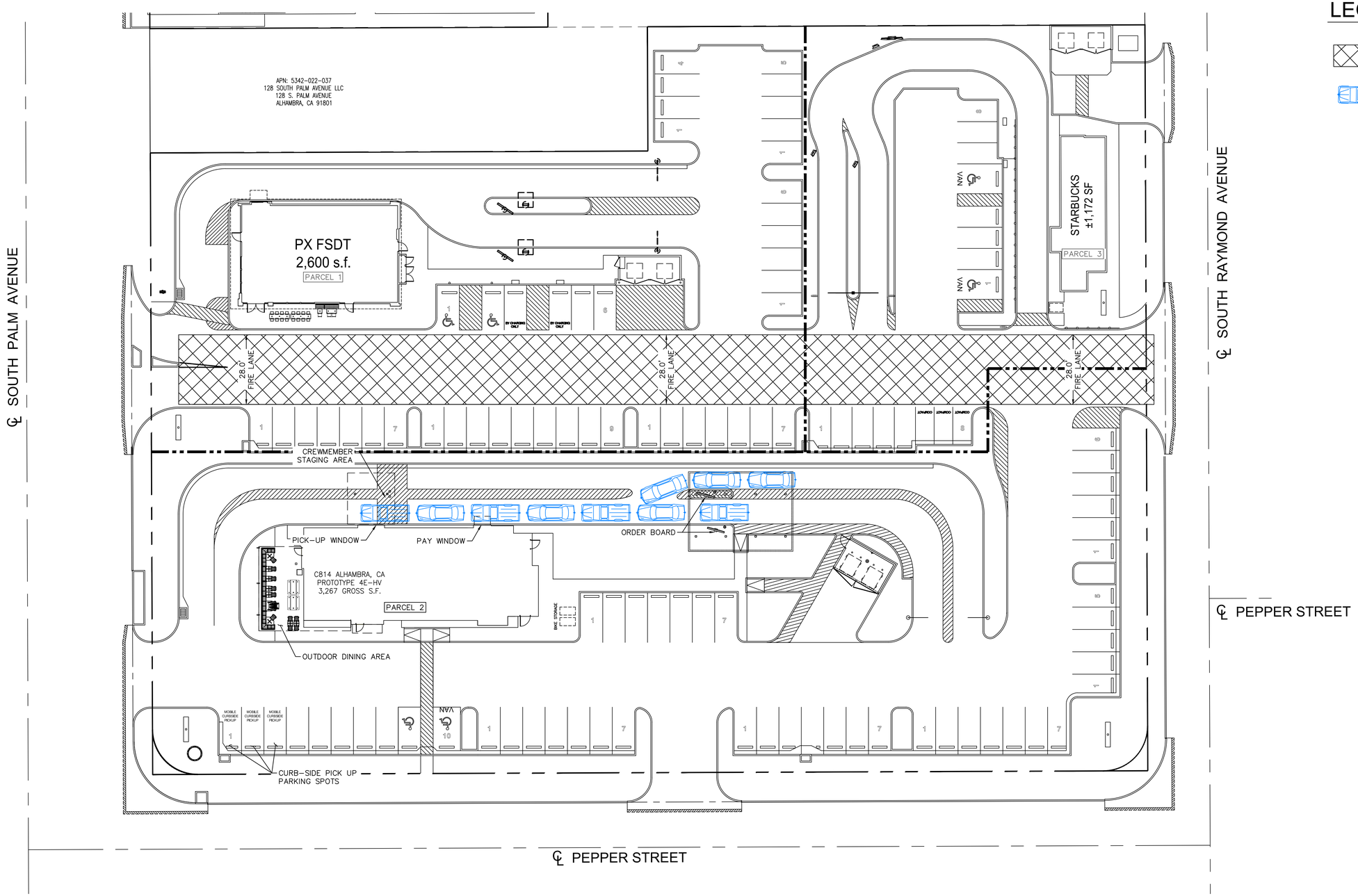
Notes: [1] 85th percentile = The queue will be less than the queue shown 85% of the time.

TABLE 2

SUMMARY OF DRIVE-THROUGH QUEUING DATA COLLECTION
RAISING CANE'S - SATURDAY
AVERAGE, 85TH PERCENTILE, AND PEAK QUEUES

Time Period	Number of Drive-through Vehicles in the Queue								
	Average Queue			85th %-ile [1] Queue			Peak Queue		
	Orange	Huntington Beach	Foothill Ranch	Orange	Huntington Beach	Foothill Ranch	Orange	Huntington Beach	Foothill Ranch
Lunch									
11:00-11:15 AM	3.3	0.9	2.3	4.0	1.1	3.9	4	2	4
11:15-11:30 AM	5.0	2.6	4.9	7.0	3.0	8.0	7	4	8
11:30-11:45 AM	2.1	1.8	8.7	3.0	3.6	11.0	4	4	12
11:45-12:00 PM	4.6	5.1	7.7	5.2	8.0	8.0	7	9	10
12:00-12:15 PM	7.7	9.2	11.5	9.0	10.0	14.0	10	10	15
12:15-12:30 PM	8.3	8.5	12.4	9.0	10.0	14.9	11	11	16
12:30-12:45 PM	6.9	5.4	12.8	8.0	6.6	14.0	8	9	15
12:45-1:00 PM	9.4	13.6	14.8	11.3	16.8	16.9	14	18	18
1:00-1:15 PM	13.8	13.7	16.1	16.7	16.0	20.0	18	16	19
1:15-1:30 PM	17.5	9.7	19.6	18.0	11.0	22.0	18	12	23
1:30-1:45 PM	15.3	7.2	15.5	17.1	8.0	16.9	18	9	19
1:45-2:00 PM	16.3	7.7	16.1	19.0	10.0	18.0	19	11	19
Highest Value	17.5	13.7	19.6	19.0	16.8	22.0	19	18	23
Dinner									
4:00-4:15 PM	14.7	7.3	2.7	17.8	10.0	4.0	20	11	6
4:15-4:30 PM	20.5	3.3	6.1	20.9	4.0	7.0	21	5	8
4:30-4:45 PM	18.7	2.6	7.5	19.0	4.0	9.0	19	7	10
4:45-5:00 PM	21.3	4.1	9.6	21.7	5.0	11.0	22	6	12
5:00-5:15 PM	21.0	6.4	14.3	22.8	9.3	17.0	24	10	18
5:15-5:30 PM	23.3	6.5	20.3	24.1	9.0	21.9	25	10	23
5:30-5:45 PM	23.0	10.6	16.4	23.7	13.0	19.9	24	15	20
5:45-6:00 PM	20.8	6.3	15.9	22.1	8.5	17.0	23	11	19
6:00-6:15 PM	23.3	7.5	15.1	24.4	11.0	17.9	25	12	19
6:15-6:30 PM	21.5	9.8	16.5	21.9	12.2	17.9	22	15	18
6:30-6:45 PM	21.3	14.4	16.5	21.7	16.0	18.0	22	18	18
6:45-7:00 PM	21.8	15.3	17.0	22.6	17.0	18.0	23	19	18
Highest Value	23.3	15.3	20.3	24.4	17.0	21.9	25	19	23

Notes: [1] 85th percentile = The queue will be less than the queue shown 85% of the time.



LEGEND

FIRE ACCESS LANE TO REMAIN CLEAR OF DRIVE THRU QUEUE

10 CARS

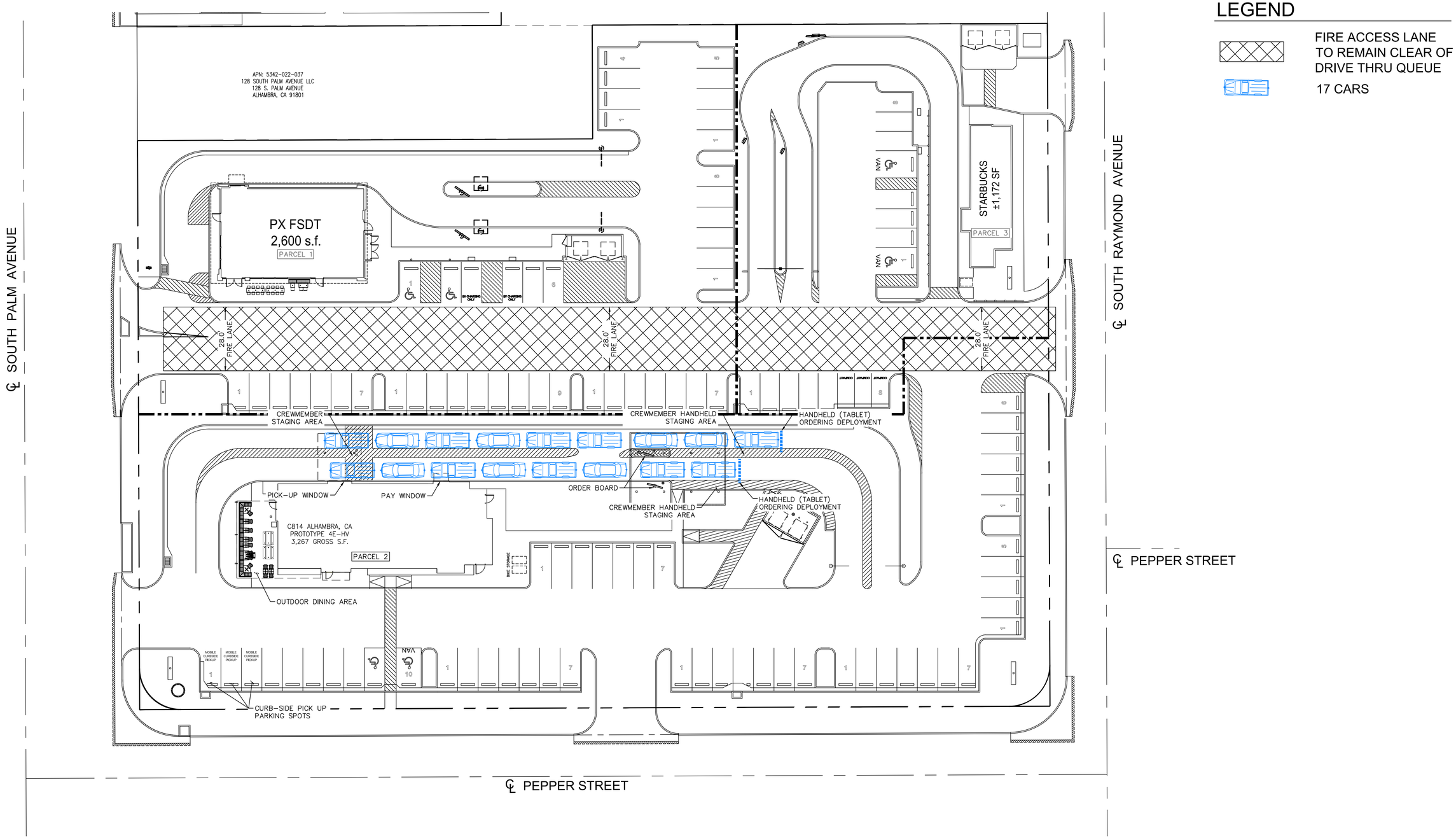
N

EXHIBIT A
STANDARD DRIVE THRU OPERATIONS

RC0814 PEPPER AND SOUTH PALM, ALHAMBRA CA

08/09/2023

Raising Cane's CHICKEN FINGERS



LEGEND

FIRE ACCESS LANE TO REMAIN CLEAR OF DRIVE THRU QUEUE

17 CARS

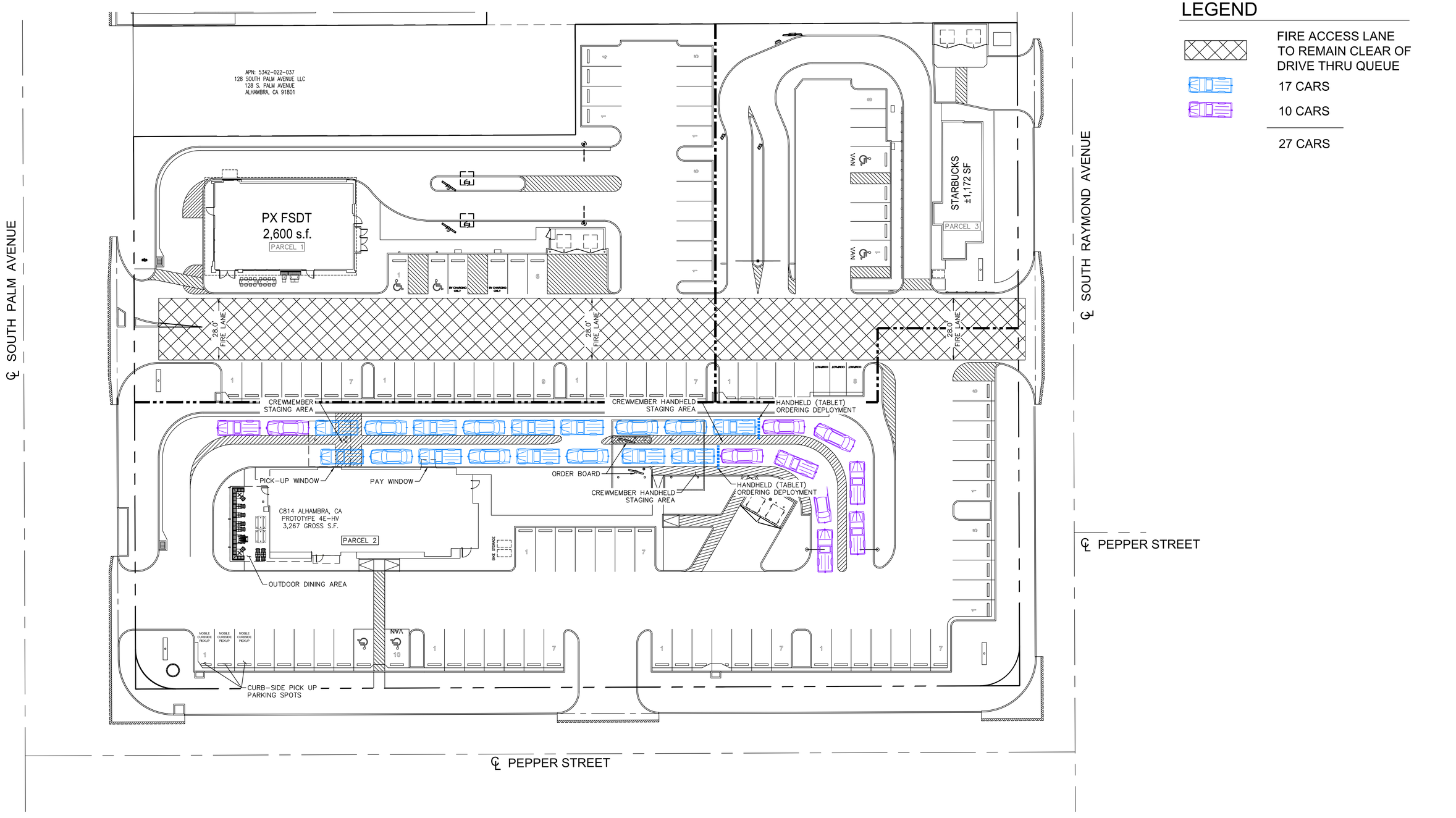
N

EXHIBIT B
PHASE 1 - TRAFFIC MANAGEMENT PLAN

RC0814 PEPPER AND SOUTH PALM, ALHAMBRA CA

08/09/2023

Raising Cane's CHICKEN FINGERS



LEGEND

FIRE ACCESS LANE TO REMAIN CLEAR OF DRIVE THRU QUEUE

17 CARS

10 CARS

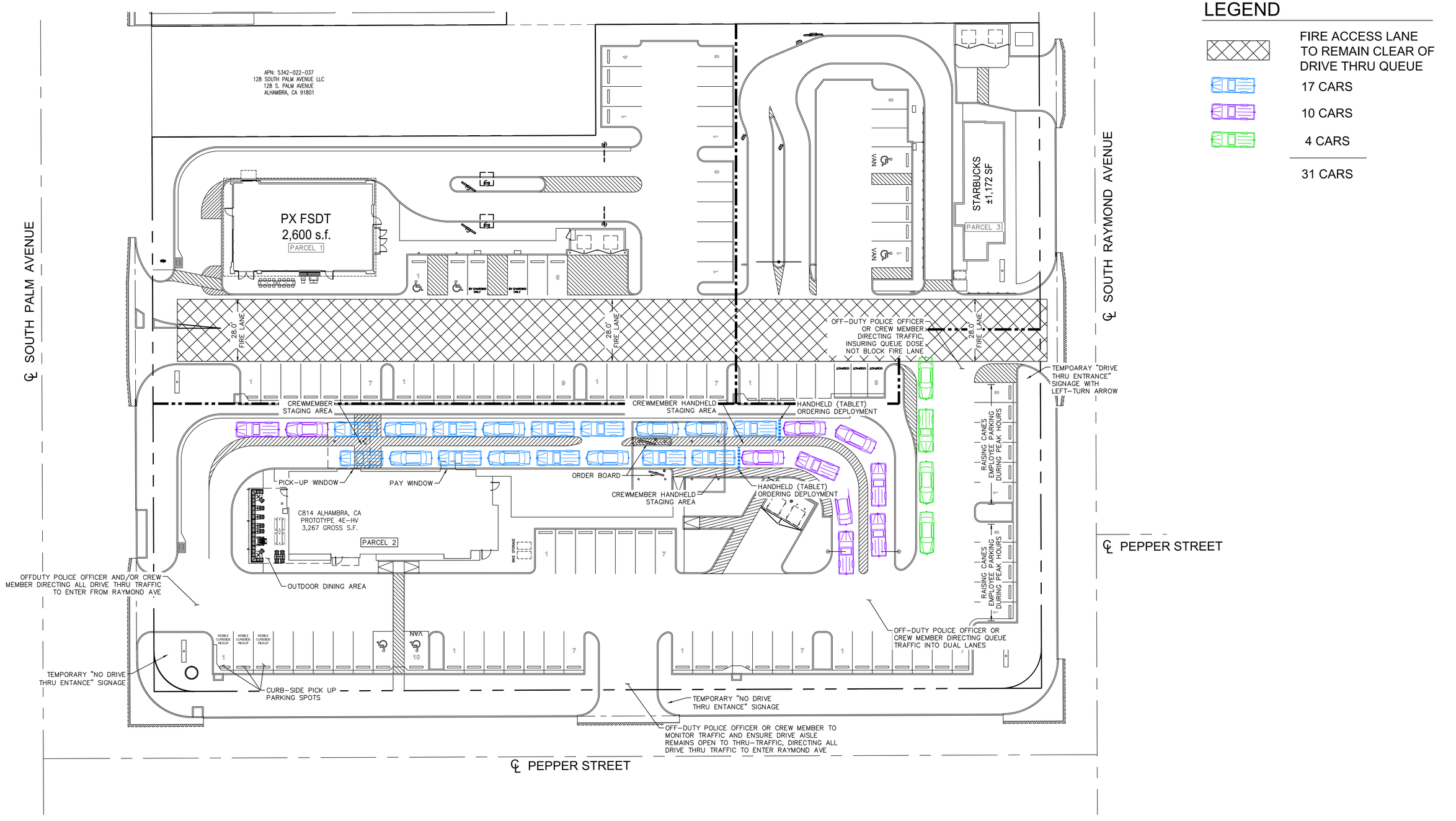
27 CARS

N

EXHIBIT C
PHASE 2 - TRAFFIC MANAGEMENT PLAN

RC0814 PEPPER AND SOUTH PALM, ALHAMBRA CA

08/09/2023



LEGEND

- FIRE ACCESS LANE TO REMAIN CLEAR OF DRIVE THRU QUEUE
- 17 CARS
- 10 CARS
- 4 CARS

31 CARS

N

EXHIBIT D
PHASE 3 - TRAFFIC MANAGEMENT PLAN

RC0814 PEPPER AND SOUTH PALM, ALHAMBRA CA

08/09/2023