

Accepted for File

By: Daniel Torres, P.E.
Engineering Manager

Date: 08/03/2026 5:53:28 PM

El Paso County Department of Public Works
Development Services



TRAFFIC IMPACT STUDY

An updated traffic impact study and CDOT access permit will be required for new development on the property prior to issuance of future land use approvals or building permits

Palmer Park and Powers VASA

El Paso County, Colorado

PCD File PPR267

Prepared for:

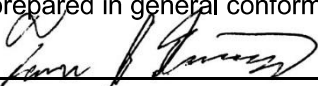
Hawkins Development, LLC

Kimley»Horn

T R A F F I C I M P A C T S T U D Y

Traffic Engineer's Statement

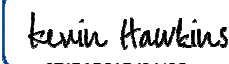
The attached traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.


Tanner J. Daines, PE #66684

July 10, 2026
Date

Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

Signed by:

6F1BAD6AD43448C...
Mr. Kevin Hawkins
Hawkins Development, LLC
7076 Alton Way, Suite H100
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7/14/2026
Date

Palmer Park and Powers VASA

El Paso County, Colorado

Prepared for
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July 2026



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1.0 EXECUTIVE SUMMARY

Palmer Park and Powers VASA is located near the southeast corner of the Palmer Park Boulevard and Powers Boulevard (SH-21) intersection in El Paso County, Colorado. The project is a workout facility including strength, cardio, and recovery features. The VASA Fitness is already operational; therefore, analysis was conducted for the 2025 existing horizon (based on count dates), 2026 short-term horizon, as well as the 2046 long-term twenty-year planning horizon.

The purpose of this traffic study is to identify project traffic generation characteristics to determine potential project traffic related impacts on the local street system and to develop the necessary mitigation measures required for the identified traffic impacts. The following intersections were incorporated into this traffic study in accordance with the El Paso County and Colorado Department of Transportation (CDOT) standards and requirements:

- Palmer Park Boulevard and Powers Boulevard (SH-21) (Intersection #1)
- Palmer Park Boulevard West Access (#2)
- Palmer Park Boulevard East Access (#3)
- Omaha Boulevard and Powers Boulevard (SH-21) (#4)
- Omaha Boulevard Access (#5)

Regional access to the site will be provided by U.S. Highway 24 and Powers Boulevard (SH-21). Primary access will be provided by Palmer Park Boulevard and Omaha Boulevard. Direct access will be provided by the two existing full movement accesses along Palmer Park Boulevard, the West Access (#2) and East Access (#3), and the existing full movement Omaha Boulevard Access (#5).

Palmer Park and Powers VASA is expected to generate approximately 2,048 weekday daily trips, with 97 of these trips occurring during the morning peak hour and 212 of these trips occurring during the afternoon peak hour. The previous land use would have been expected to generate approximately 1,562 weekday daily trips, with 40 of these trips occurring during the morning peak hour and 133 of these trips occurring during the afternoon peak hour. Using this land use method as a comparison, the currently occupied use as a Health/Fitness club would be expected to generate approximately 486 additional weekday daily trips, with 57 additional morning peak hour

trips and 79 additional afternoon peak hour trips compared to the same site if it had been used as a Department Store.

Based on the analysis presented in this report, Kimley-Horn believes Palmer Park and Powers VASA will be successfully incorporated into the existing and future roadway network. Analysis of the existing street network, the proposed project development, and expected traffic volumes resulted in the following conclusions and recommendations:

- Based on traffic projections, the addition of project traffic on all legs of either Power Boulevard (SH-21) intersection is not anticipated to increase existing access traffic volumes by more than 20 percent. Therefore, a CDOT access permit is not anticipated to be required in association with this project. However, with the future planned commercial development of the northeast corner of Palmer Park Boulevard and the associated change to the east leg of Palmer Park Boulevard, an access permit has been requested by CDOT. Part of the agreed upon access permit includes \$60,036 of escrow to be held by CDOT for future intersection improvements.
- Road impact fees were evaluated based on the El Paso County Road Impact Fee Schedule. Based on these fee schedule guidelines, the fee per general commercial building is \$5,498 per 1,000 square feet of building space. Therefore, the road impact fee for the existing 68,212 square foot fitness center is expected to be \$375,030. However, this building is not a new construction and was a tenant conversion of a Kmart of the same approximate building size. The roadways would have been designed to accommodate the traffic generated by the Kmart at the time it was constructed. As such, because this is not a new building, it is not believed road impact fees are applicable for this site as a tenant conversion.
- No modifications are recommended at this time for intersections or turn lanes as a part of this study. As additional development to the north and south of this site occurs, it is understood that modifications to the intersections along Palmer Park Boulevard may occur, including relocating the traffic signal from the West Access (#2) to the East Access (#3), realignment of Waynoka Road, and possible restriction of the West Access (#2) to be right-in/right-out movements only.
- Any onsite or offsite improvements should be incorporated into the Civil Drawings and conform to standards of the El Paso County, Colorado Department of Transportation (CDOT), and the Manual on Uniform Traffic Control Devices (MUTCD) – 11th Edition, 2023.

2.0 INTRODUCTION

Kimley-Horn has prepared this report to document the results of a Traffic Impact Study for Palmer Park and Powers VASA located near the southeast corner of the Palmer Park Boulevard and Powers Boulevard (SH-21) intersection in El Paso County, Colorado. A vicinity map illustrating the project development location is shown in **Figure 1**. The project is a workout facility including strength, cardio, and recovery features. A conceptual site plan is attached in **Appendix A**. The VASA Fitness is already operational; therefore, analysis was conducted for the 2025 existing horizon (based on count dates), 2026 short-term horizon, as well as the 2046 long-term twenty-year planning horizon.

The purpose of this traffic study is to identify project traffic generation characteristics to determine potential project traffic related impacts on the local street system and to develop the necessary mitigation measures required for the identified traffic impacts. The following intersections were incorporated into this traffic study in accordance with the El Paso County and Colorado Department of Transportation (CDOT) standards and requirements:

- Palmer Park Boulevard and Powers Boulevard (SH-21) (Intersection #1)
- Palmer Park Boulevard West Access (#2)
- Palmer Park Boulevard East Access (#3)
- Omaha Boulevard and Powers Boulevard (SH-21) (#4)
- Omaha Boulevard Access (#5)

Regional access to the site will be provided by U.S. Highway 24 and Powers Boulevard (SH-21). Primary access will be provided by Palmer Park Boulevard and Omaha Boulevard. Direct access will be provided by the two existing full movement accesses along Palmer Park Boulevard, the West Access (#2) and East Access (#3), and the existing full movement Omaha Boulevard Access (#5).

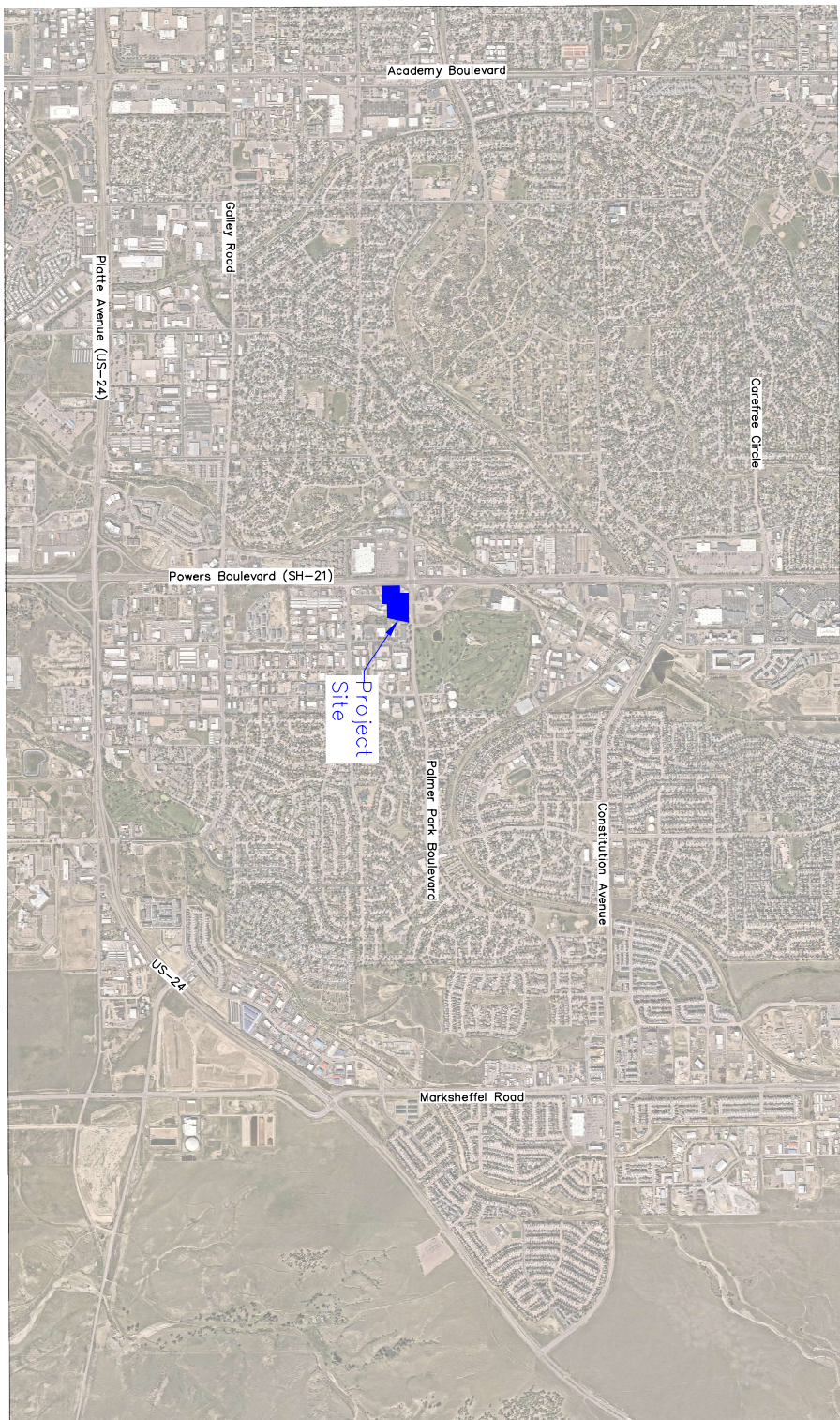


FIGURE 1
Palmer Park and Powers VASA
El Paso County, Colorado
Vicinity Map

3.0 EXISTING AND FUTURE CONDITIONS

3.1 Existing Study Area

The existing site is currently a VASA Fitness center. Directly to the east, west, and south of the project site are other commercial areas. Directly to the north of the site is a public golf course. The greater surrounding area is comprised of residential uses.

3.2 Existing Roadway Network

Powers Boulevard (SH-21) is a six-lane divided highway that extends primarily in the north-south direction. The posted speed limit along the roadway is 55 miles per hour (mph) near the study intersections. The Colorado Department of Transportation (CDOT) identifies this roadway as a “F-W, Interstate System, Freeway Facility”. However, the nearest grade-separated interchange to the north of Palmer Park Boulevard is located nearly six miles to the north at Woodmen Road, and just over one mile to the south at Platte Avenue. In addition, the intersection of Airport Road and Powers Boulevard (SH-21) is grade separated, located just over two miles to the south of Palmer Park Boulevard. It is understood that in coming years, some existing at-grade intersections may be converted to grade-separated interchanges in this area but at this time it is believed Powers Boulevard (SH-21) in the study area currently operates more as an Expressway (E-X) facility adjacent to the project site.

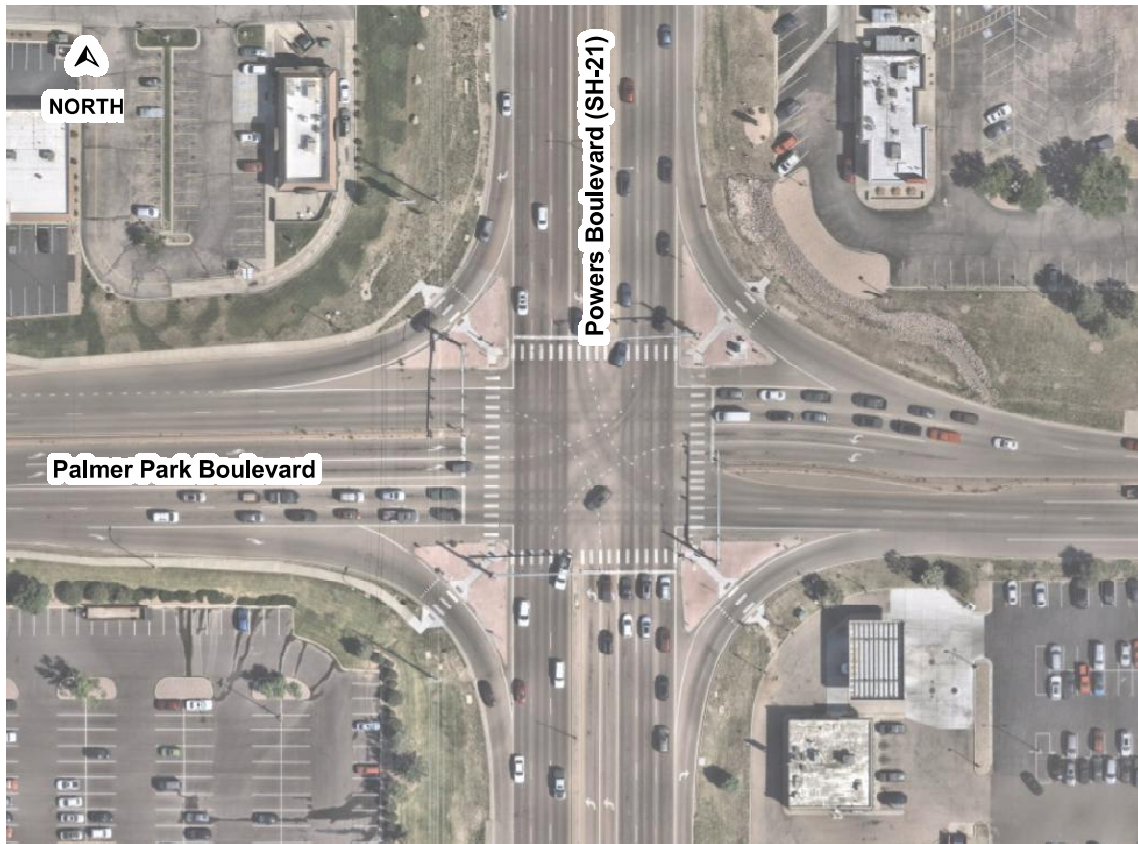
Palmer Park Boulevard extends as an east-west roadway with two through lanes provided in each direction with a mix of raised center median and two-way left turn lane median. The posted speed limit is 35 mph. The El Paso County Major Transportation Corridors Plan (MTCP) completed in July 2024 identifies the roadway as an “Urban – Minor Arterial”. According to the County’s Engineering Criteria Manual (ECM), the desirable intersection spacing on Urban Minor Arterial roadways is a quarter mile (ECM, Table 2-6) and the access spacing for a 35-mph four-lane roadway based on entering sight distance requirements is 420 feet (ECM, Table 2-35).

Omaha Boulevard is a three-lane roadway with a center two-way left turn lane and one through lane both eastbound and westbound. The roadway extends for approximately 1.5 miles from Powers Boulevard (SH-21) to Mineola Street. The roadway is classified in the MTCP as an “Urban – Major Collector”. The posted speed limit is 40 mph. The desirable intersection spacing on Non-

Residential Collector roadways per the ECM is 660 feet (ECM, Table 2-7) and the access spacing for entering sight distance for a 40-mph two-lane roadway is 400 feet (ECM, Table 2-35).

Based on these standards for Palmer Park Boulevard and Omaha Boulevard, the current access spacing on these roadways into the commercial development does not meet El Paso County standards.

The signalized intersection of Palmer Park Boulevard and Powers Boulevard (SH-21) (#1) operates with protected-only left turn phasing on all four approaches. Additionally, the right turn movements for the eastbound, westbound, and southbound approaches operate under free conditions with acceleration lanes provided while the northbound right turn movement operates with yield control. The northbound and southbound Powers Boulevard (SH-21) approaches both provide dual left turn lanes, three through lanes, and a right turn lane. The eastbound and westbound Palmer Park Boulevard approaches provide dual left turn lanes, two through lanes, and a right turn lane. An aerial photo of the existing intersection configuration is below.



Palmer Park Boulevard & Powers Boulevard (SH-21) (#1)

The existing Palmer Park Boulevard West Access (#2) intersection is signalized with permissive left turn phasing on all four approaches. The northbound and southbound approaches are not striped but provide adequate width to accommodate a separate left turn lane and a shared through/right turn lane. Striping this northbound approach to the intersection may help to minimize driver confusion and would be an improvement to the current condition. The eastbound approach of Palmer Park Boulevard provides a left turn lane, two through lanes, and a right turn lane while the westbound approach provides a left turn lane and two through lanes with the outside through lane being a shared through/right turn lane. An aerial photo of the existing intersection configuration is below.



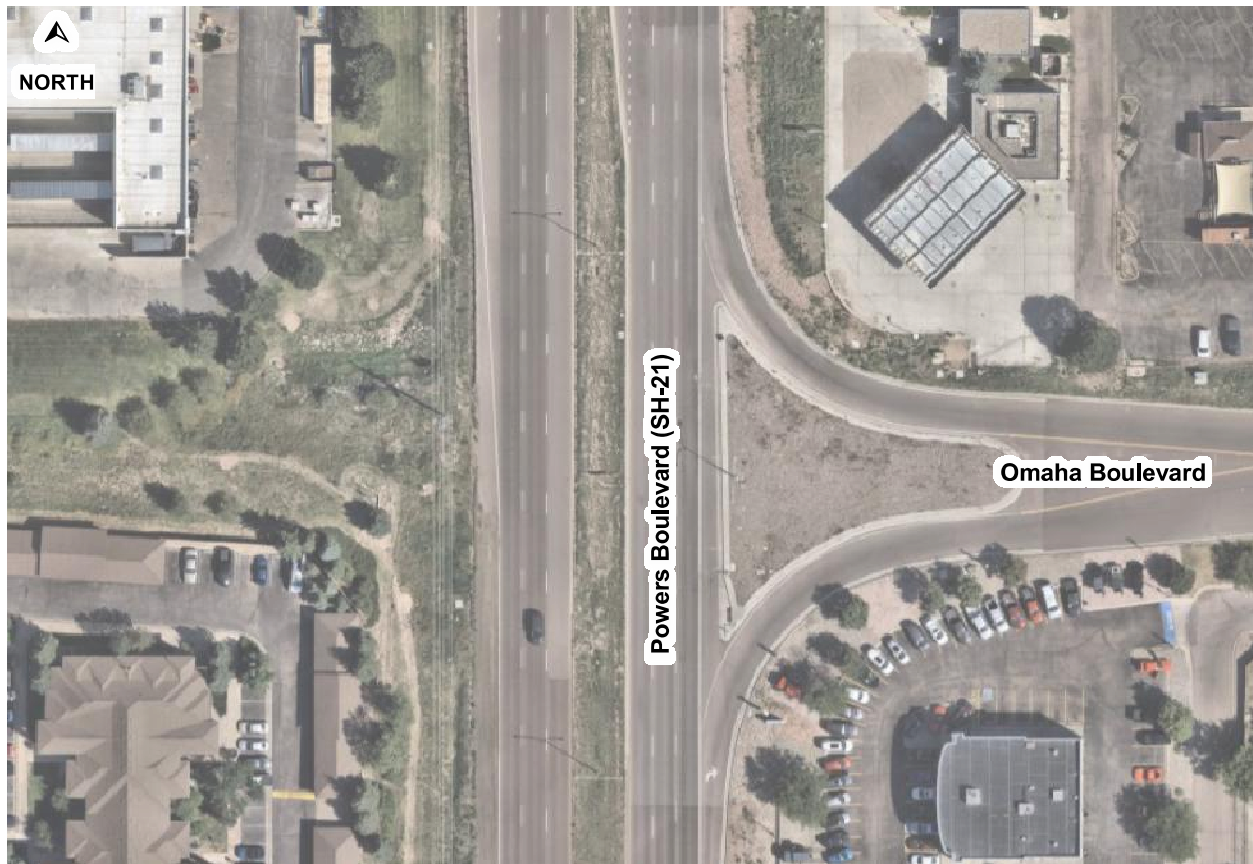
Palmer Park Boulevard West Access (#2)

The existing 'T' intersection of the Palmer Park Boulevard East Access (#3) currently operates under stop control for the minor northbound approach. The northbound approach is not striped and was assumed to operate with a single lane for both left and right turning movements. The eastbound approach of Palmer Park Boulevard provides two through lanes with the outside through lane being a shared through/right turn lane. The westbound approach provides a left turn lane as a two-way left turn lane (TWLTL) and two through lanes. An aerial photo of the existing intersection configuration is below.



Palmer Park Boulevard East Access (#3)

The unsignalized T-intersection of Omaha Boulevard and Powers Boulevard (SH-21) (#4) operates with movements on Omaha Boulevard restricted to right-in/right-out (RIRO) only and no control. The westbound approach of Omaha Boulevard provides a right turn-only lane with a westbound to northbound acceleration lane. Therefore, the westbound right movement operates under free conditions. Additionally, the northbound approach of Powers Boulevard (SH-21) provides three through lanes and a separate right turn lane while the southbound approach provides three through lanes. An aerial photo of the existing intersection configuration is below.



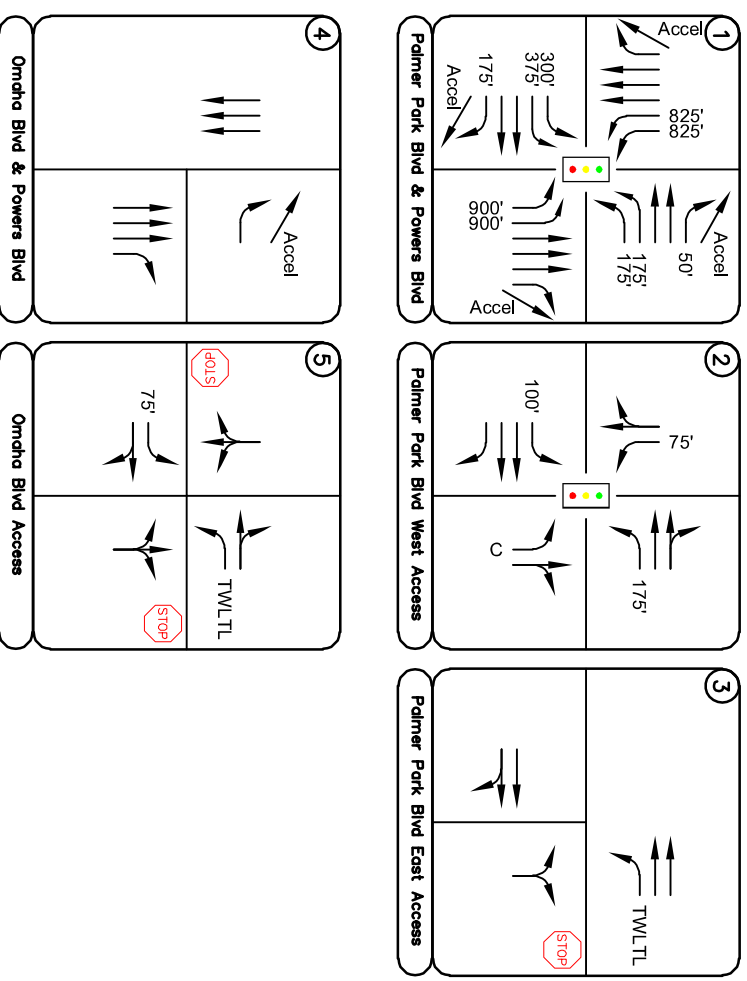
Omaha Boulevard & Powers Boulevard (SH-21) (#4)

The existing Omaha Boulevard Access (#5) intersection operates with stop control on the northbound and southbound access approaches. The northbound and southbound legs provide a single lane shared for all movements. The eastbound and westbound approaches of Omaha Boulevard provide a left turn lane and a shared through/right turn lane. The eastbound approach has a designated left turn lane while the westbound approach provides a TWLTL. An aerial photo of the existing intersection configuration is below.



Omaha Boulevard Access (#5)

The intersection lane configuration and control for the study area intersections are shown in **Figure 2**.



Palmer Park and Powers VASA
El Paso County, Colorado
Existing Geometry and Control

3.3 Existing Traffic Volumes

Existing turning movement counts were conducted at the four (4) of the five (5) study intersections on Thursday, January 9, 2025, during the weekday morning and afternoon peak hours. The counts for movements associated with the south leg of the Palmer Park Boulevard East Access (#3) were collected on Thursday, June 26, 2025. Through movements along Palmer Park Boulevard at this intersection were extrapolated from the counts at the Palmer Park Boulevard East Access (#2). The counts were conducted during the morning and afternoon peak hours of adjacent street traffic in 15-minute intervals from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM on this count date. The existing intersection traffic volumes are shown in **Figure 3** with count sheets provided in **Appendix B**. As the existing traffic volumes include the traffic generated by the VASA site, the existing traffic volumes shown in **Figure 3** subtracted the project traffic assignment shown in **Figure 7** to reflect the traffic volumes that would be expected to occur in the area if the VASA site did not exist.

3.4 Unspecified Development Traffic Growth

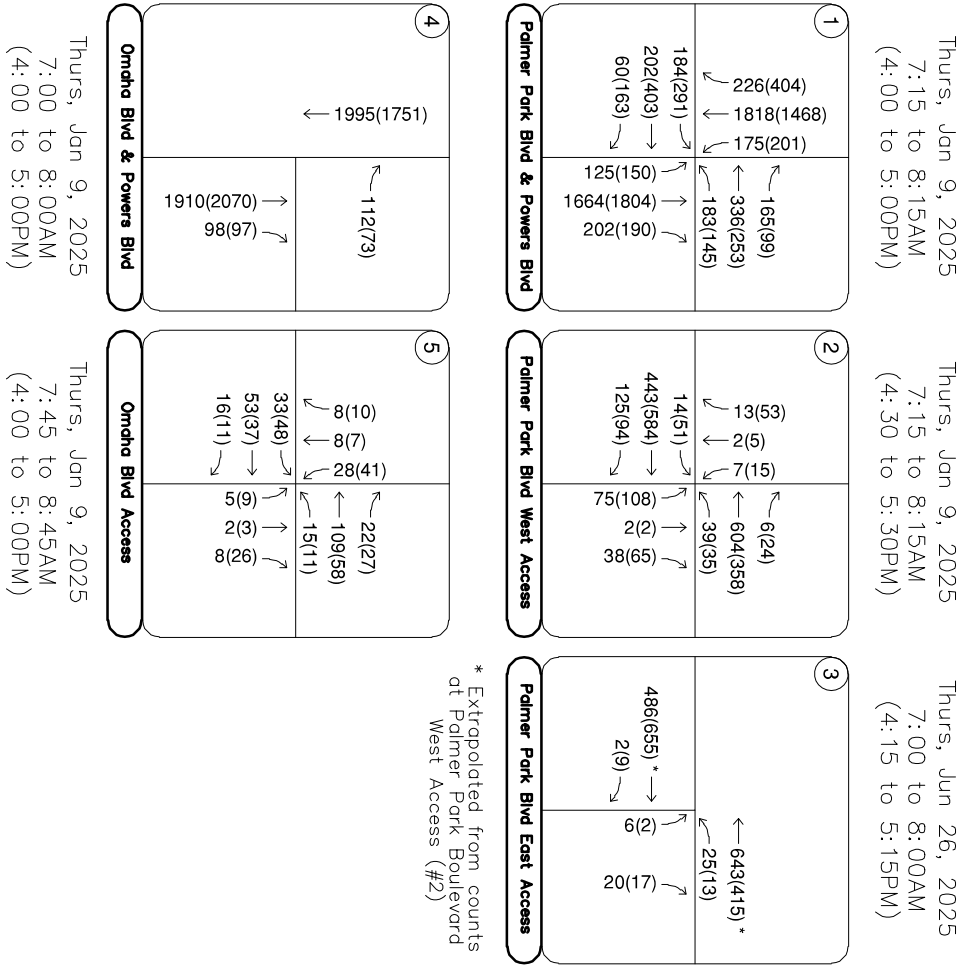
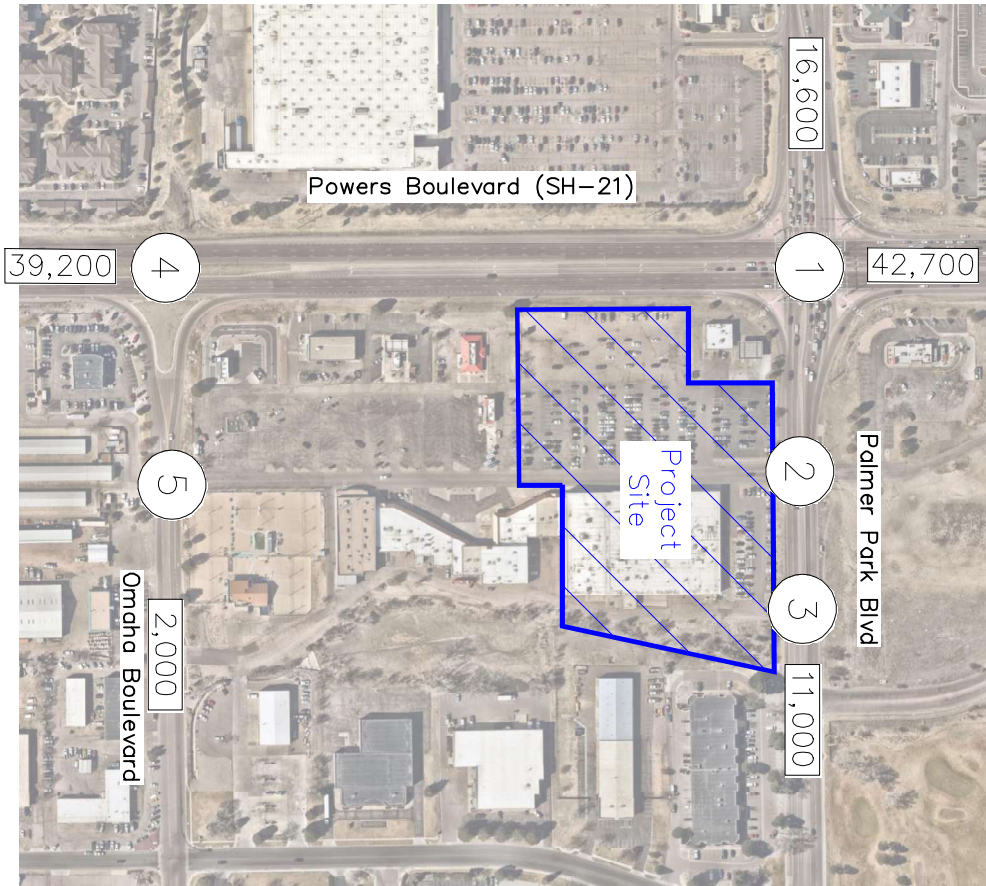
According to information provided on the website for CDOT, the 20-year growth factor along Powers Boulevard (SH-21) within the vicinity of the site is 1.25. This 20-year growth factor equates to an annual growth rate of 1.12 percent. Traffic information from the CDOT Online Transportation Information System (OTIS) website is included in **Appendix C**. This annual growth rate was used to estimate near-term 2026 and long-term 2046 traffic volume projections at the key intersections. Background traffic volumes for 2026 and 2046 are shown in **Figure 4** and **Figure 5**, respectively. As was conducted for the existing traffic volumes, the background traffic volumes used in this analysis subtracted the project traffic assignment shown in **Figure 7** to reflect the traffic volumes that would be expected to occur in the area if the VASA site did not exist. Of note, growth rates from the El Paso County Major Transportation Corridors Plan were considered, however no current or predicted average annual daily traffic (AADT) values were provided within the project area.

In addition, several other developments have been proposed or constructed in the surrounding area within the past several years. The following developments were discussed with El Paso County and the use of the County's Electronic Development Application Review Program (EDARP):

- PPR2413 – Dutch Bros Coffee (existing)
- PPR2521 – Chick-fil-A
- EA2390 – Powers and Palmer Park retail parcels
- DEV202 – Wendy's and surrounding area (mostly existing)

It is understood that with the commercial development of the parcel on the northeast corner of the Palmer Park Boulevard and Powers Boulevard (SH-21) intersection, changes to intersection control may occur along Palmer Park Boulevard. At this time, it is understood that this may include the north and south legs of the Palmer Park Boulevard West Access being restricted to right-in/right-out control only and operating under stop control. In addition, the Palmer Park Boulevard East Access is expected to become signalized while Waynoka Road may be aligned to the East Access location.

The Dutch Bros Coffee (PPR2413) and Wendy's (DEV202) were both operational at the time of the project counts on Thursday, January 9, 2025. Therefore, no additional background traffic was considered in the analysis to account for these two traffic impact studies. As the Chick-fil-A and the retail parcels to the north of Palmer Park Boulevard are not finalized, these were not included in the background traffic of this study. As the development plans for these parcels occur, it is recommended that future traffic studies in this area include all known and future committed developments.



* Extrapolated from counts at Palmer Park Boulevard West Access (#2)

LEGEND



Study Area Key Intersection

XXX(XXX)

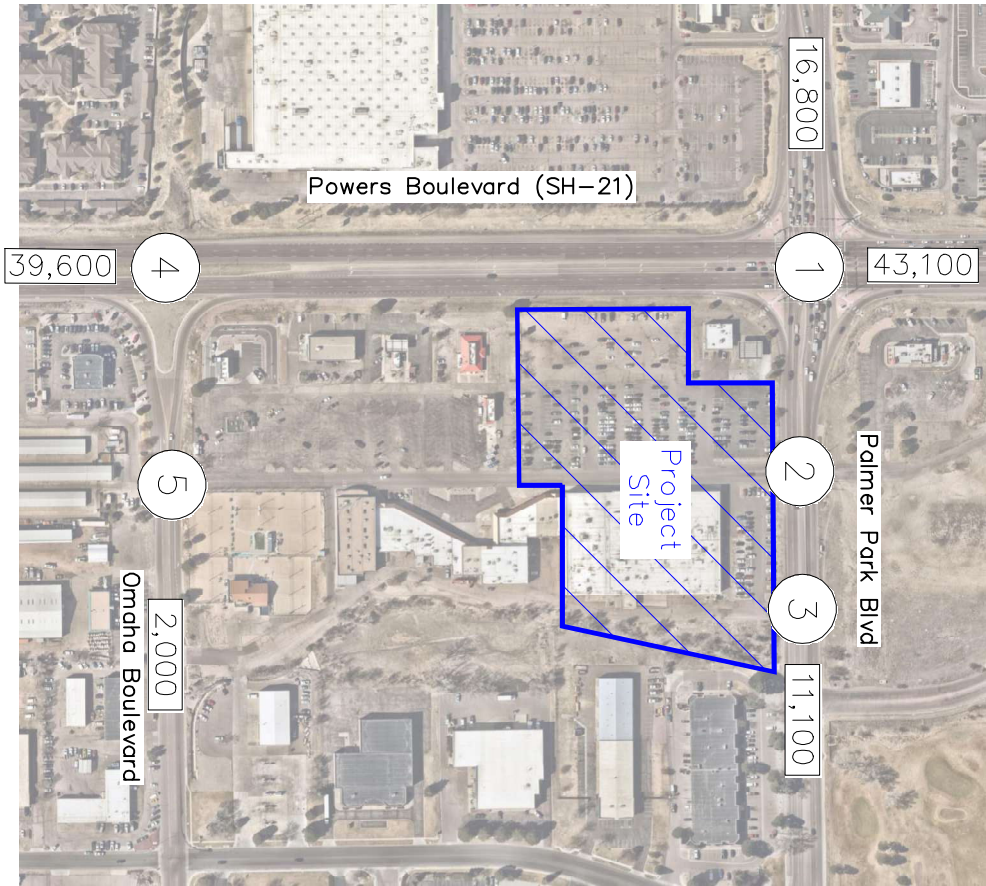
Weekday AM(PM)

Peak Hour Traffic Volumes

XX,X00

Estimated Daily Traffic Volume

FIGURE 3
Palmer Park and Powers VASA
El Paso County, Colorado
2025 Existing Traffic Volumes



1			2			3		
Palmer Park Blvd & Powers Blvd			Palmer Park Blvd West Access			Palmer Park Blvd East Access		
186(294) ←	229(409) ←	1838(1484) ←	126(152) ←	167(100) ←	340(256) ←	14(52) ←	13(54) ←	2(5) ←
204(408) →	177(203) →	185(147) →	1683(1824) →	340(256) →	185(147) →	6(24) →	6(24) →	611(962) →
61(165) →			204(192) →			39(35) →	39(35) →	25(13) →
4			5					
Omaha Blvd & Powers Blvd			Omaha Blvd Access					
← 2017(1771)			33(49) ←	8(10) ←	8(7) ←	22(27) ←	22(27) ←	110(59) ←
1931(2093) →	113(74) →	99(98) →	54(37) →	28(41) →	15(11) →	5(9) →	5(9) →	2(3) →
			16(11) →			8(26) →	8(26) →	

LEGEND

X

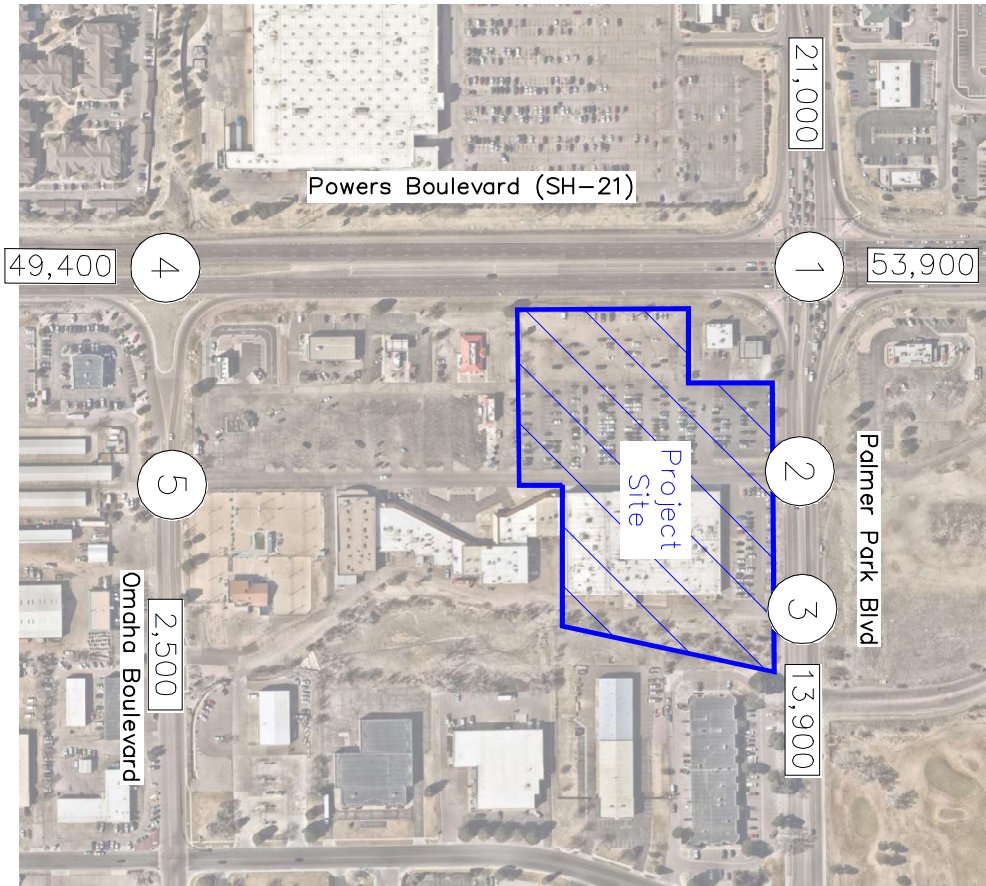
Study Area Key Intersection

XXX(XXX)Weekday AM(PM)

XXX(XXX)Peak Hour Traffic Volumes

XX,X00Estimated Daily Traffic Volume

FIGURE 4
Palmer Park and Powers VASA
El Paso County, Colorado
2026 Background Traffic Volumes



1 Palmer Park Blvd & Powers Blvd <table><tr><td>232(368) 255(509) 76(206)</td><td>286(510) 2297(1855) 221(254)</td><td>158(190) 2102(2279) 255(240)</td><td>208(125) 425(320) 231(183)</td></tr></table>	232(368) 255(509) 76(206)	286(510) 2297(1855) 221(254)	158(190) 2102(2279) 255(240)	208(125) 425(320) 231(183)	2 Palmer Park Blvd West Access <table><tr><td>18(64) 560(738) 158(119)</td><td>16(67) 3(6) 9(19)</td><td>8(30) 763(452) 49(44)</td><td>95(136) 3(3) 48(82)</td></tr></table>	18(64) 560(738) 158(119)	16(67) 3(6) 9(19)	8(30) 763(452) 49(44)	95(136) 3(3) 48(82)	3 Palmer Park Blvd East Access <table><tr><td>614(828) 3(11)</td><td>8(3) 25(21)</td><td>812(524) 32(16)</td></tr></table>	614(828) 3(11)	8(3) 25(21)	812(524) 32(16)
232(368) 255(509) 76(206)	286(510) 2297(1855) 221(254)	158(190) 2102(2279) 255(240)	208(125) 425(320) 231(183)										
18(64) 560(738) 158(119)	16(67) 3(6) 9(19)	8(30) 763(452) 49(44)	95(136) 3(3) 48(82)										
614(828) 3(11)	8(3) 25(21)	812(524) 32(16)											
4 Omaha Blvd & Powers Blvd <table><tr><td>2521(2212)</td><td>142(92) 2413(2615) 124(123)</td></tr></table>	2521(2212)	142(92) 2413(2615) 124(123)	5 Omaha Blvd Access <table><tr><td>10(13) 10(9) 35(52) 42(61) 67(47) 20(14)</td><td>28(34) 138(73) 19(14) 6(11) 3(4) 10(33)</td></tr></table>	10(13) 10(9) 35(52) 42(61) 67(47) 20(14)	28(34) 138(73) 19(14) 6(11) 3(4) 10(33)								
2521(2212)	142(92) 2413(2615) 124(123)												
10(13) 10(9) 35(52) 42(61) 67(47) 20(14)	28(34) 138(73) 19(14) 6(11) 3(4) 10(33)												

LEGEND

X

Study Area Key Intersection

XXX(XXX)

Weekday AM(PM)

Peak Hour Traffic Volumes

XX,X00

Estimated Daily Traffic Volume

FIGURE 5
Palmer Park and Powers VASA
El Paso County, Colorado
2046 Background Traffic Volumes

4.0 PROJECT TRAFFIC CHARACTERISTICS

4.1 Trip Generation

Site-generated traffic estimates are determined through a process known as trip generation. Rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific time interval. The acknowledged source for trip generation rates is the *Trip Generation Manual*¹ published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land uses. For this study, Kimley-Horn used the ITE Trip Generation Report average rates/fitted curve equations that apply to Health/Fitness Club (ITE Land Use Code 492) for traffic associated with the development. The previous land use was a Kmart facility operating with the same building footprint. To provide a basis of comparison of the number of trips that would have been expected to be generated by the previous land use when it was last occupied, a trip generation comparison is provided in this study. Based on discussions with El Paso County staff, it was requested that the previous land use be analyzed as a Department Store (ITE Land Use Code 875). A Department Store is defined by ITE as a “free-standing facility that specializes in a wide range of products including apparel, footwear, home products, bedding and linens, luggage, jewelry, and accessories.” It is understood that the Kmart also sold a variety of food products as well, which is not included in this land use code.

Palmer Park and Powers VASA is expected to generate approximately 2,048 weekday daily trips, with 97 of these trips occurring during the morning peak hour and 212 of these trips occurring during the afternoon peak hour. The previous land use would have been expected to generate approximately 1,562 weekday daily trips, with 40 of these trips occurring during the morning peak hour and 133 of these trips occurring during the afternoon peak hour. Using this land use method as a comparison, the currently occupied use as a Health/Fitness club would be expected to generate approximately 486 additional weekday daily trips, with 57 additional morning peak hour trips and 79 additional afternoon peak hour trips compared to the same site if it had been used as a Department Store. Calculations were based on the procedure and information provided in the ITE *Trip Generation Manual, 12th Edition – Volume 1: User’s Guide and Handbook, 2025*. **Table 1** summarizes the estimated trip generation for the site. The trip generation worksheets are included in **Appendix D**.

¹ Institute of Transportation Engineers, *Trip Generation Manual*, Twelfth Edition, Washington DC, 2025.

Table 1 – Palmer Park and Powers VASA Traffic Generation Comparison

Land Use and Size	Weekday Vehicle Trips						
	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Previous Land Use							
Department Store (ITE 875) – 68,212 Square Feet	1,562	26	14	40	67	66	133
Current Land Use							
Health/Fitness Club (ITE 492) – 68,212 Square Feet	2,048	49	48	97	121	91	212
Net Difference in Trips	+486	+23	+34	+57	+54	+25	+79

4.2 Trip Distribution

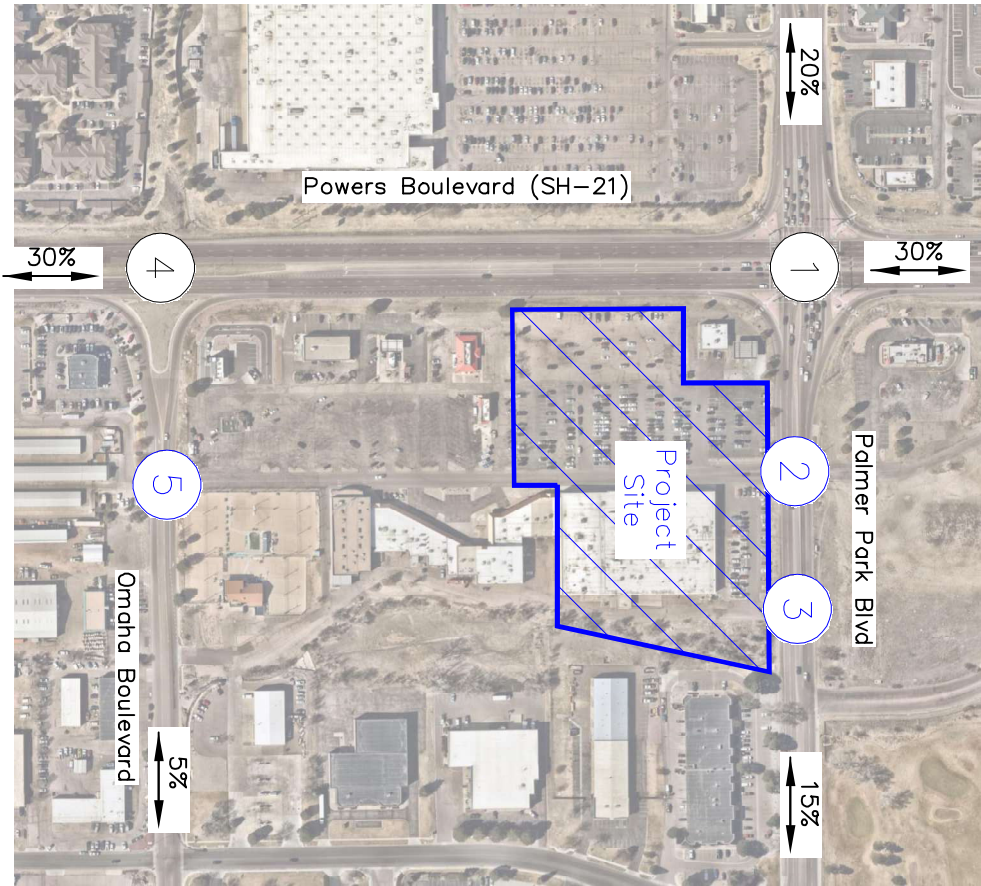
Distribution of site traffic on the street system was based on the area street system characteristics, existing traffic patterns, and the proposed access system for the project. The directional distribution of traffic is a means to quantify the percentage of site-generated traffic that approaches the site from a given direction and departs the site back to the original source. The project trip distribution for the proposed development is illustrated in **Figure 6**.

4.3 Traffic Assignment

The project's traffic assignment was obtained by applying the project trip distribution to the estimated traffic generation of the development shown in **Table 1**. Traffic assignment is shown in **Figure 7**.

4.4 Total (Background Plus Project) Traffic

Site traffic volumes were added to the background volumes to represent estimated traffic conditions for the short-term 2026 horizon and long-term 2046 twenty-year planning horizon. These total traffic volumes for the study area are illustrated for the 2026 and 2046 horizon years in **Figure 8** and **Figure 9**, respectively.



1	30% ← [30%] ← [20%] ← [30%]	20% → 20% ↖
2	5% ← [5%] ← 10%	5% → 65% ↖ [75%] [10%]
3	10% ← 10% 5%	[10%] 5% → 5% ↖ [5%] [5%]

4	[30%] 20% → 10% ↖	Omaha Blvd & Powers Blvd
5	10% → [5%] 5%	Omaha Blvd Access

LEGEND

X

Study Area Key Intersection

X

Project Access Intersection

XX%

External Trip Distribution Percentage

XX%[XX%]

Entering[Exiting]
Trip Distribution Percentage

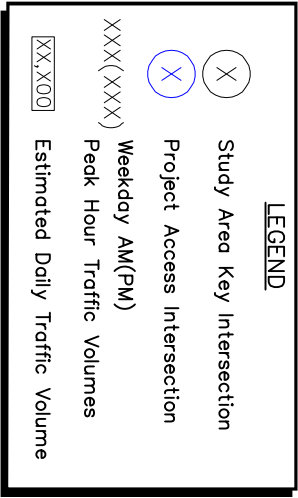
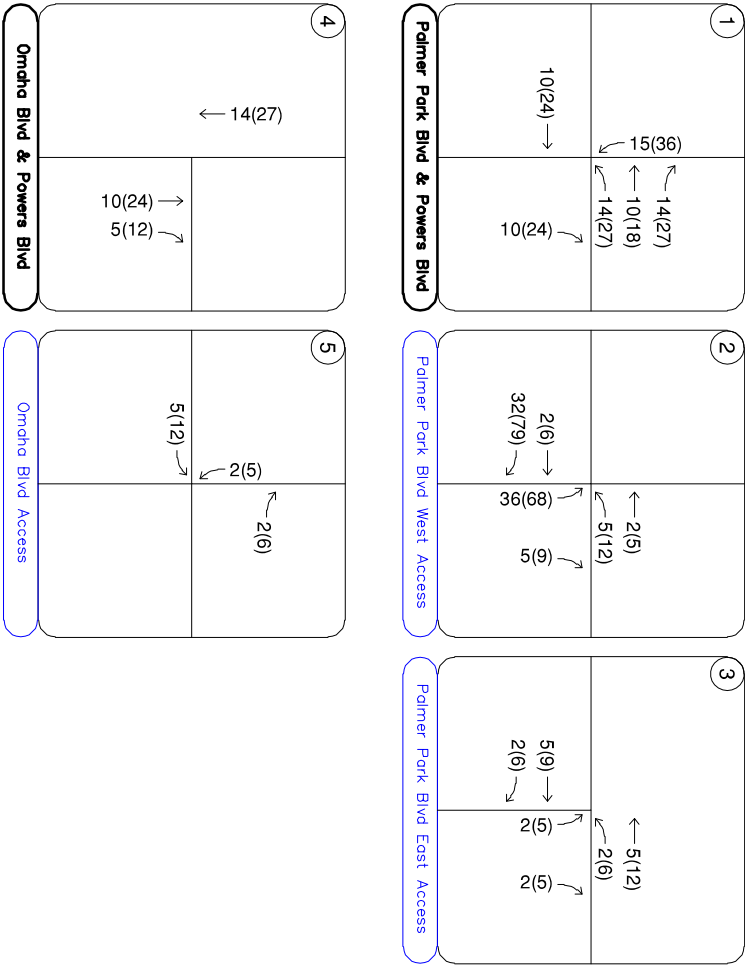
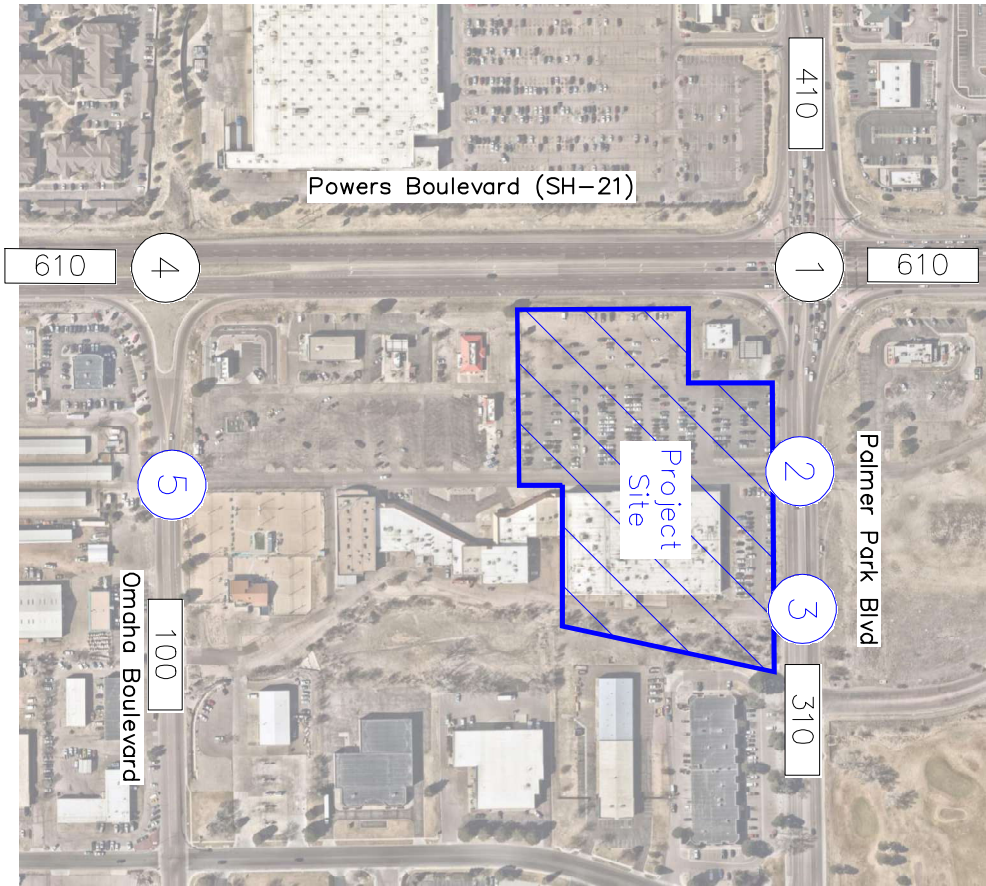


FIGURE 7
Palmer Park and Powers VASA
El Paso County, Colorado
Project Traffic Assignment

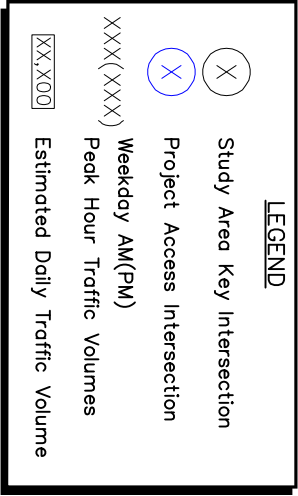
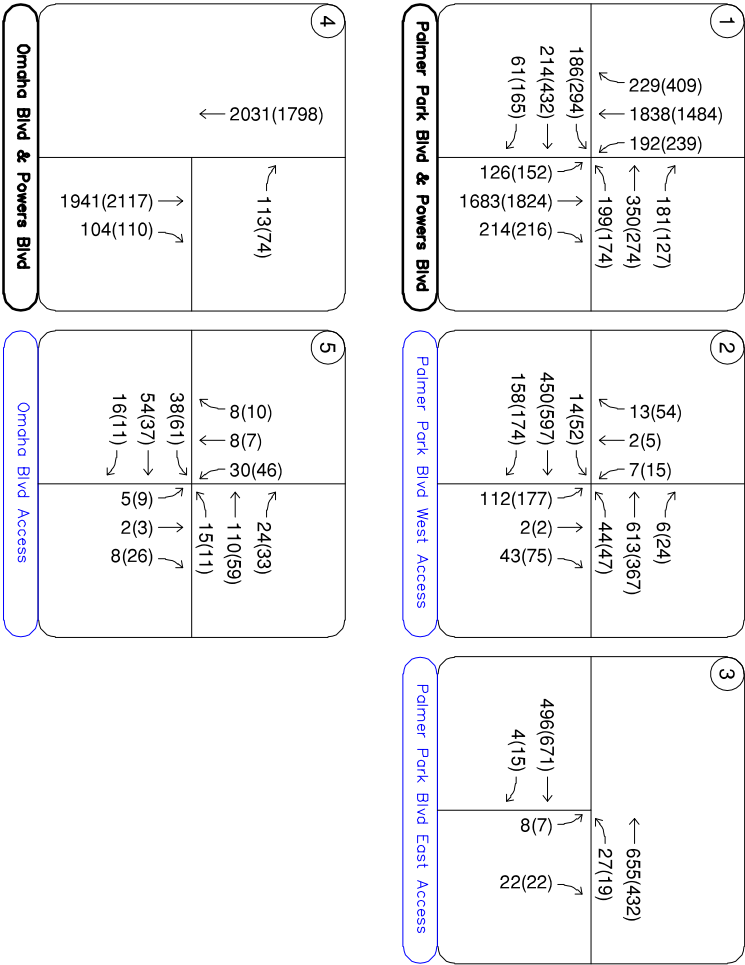
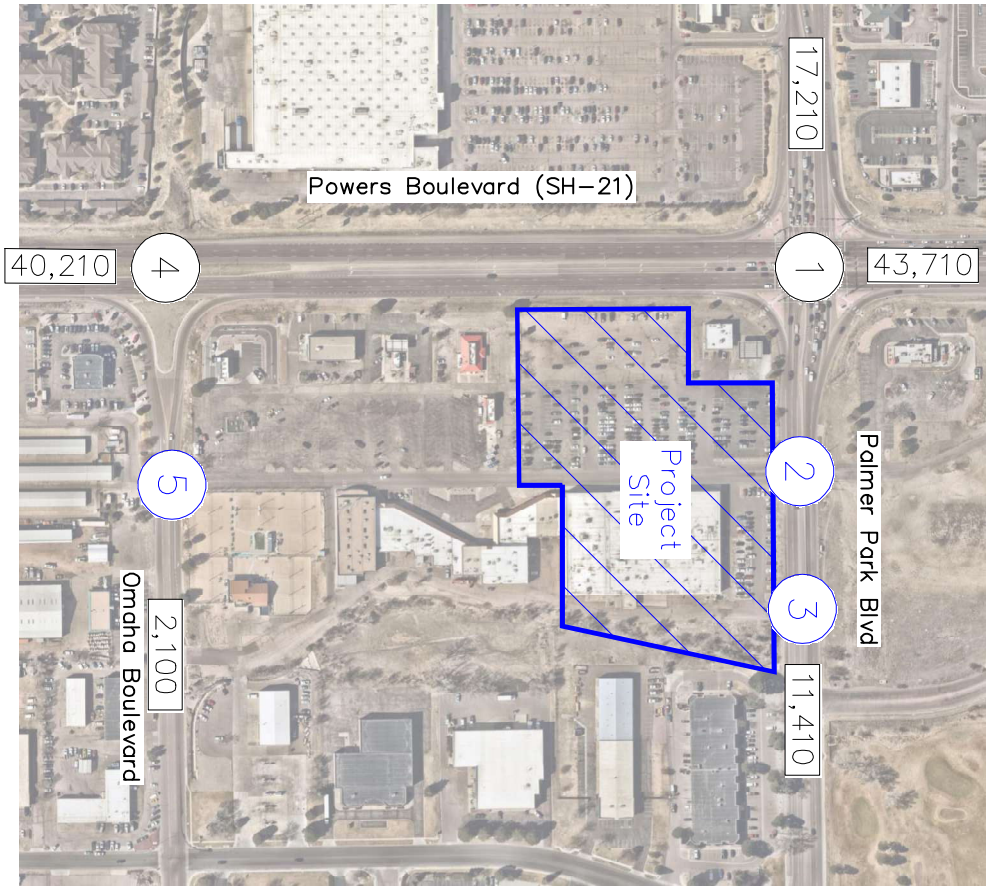
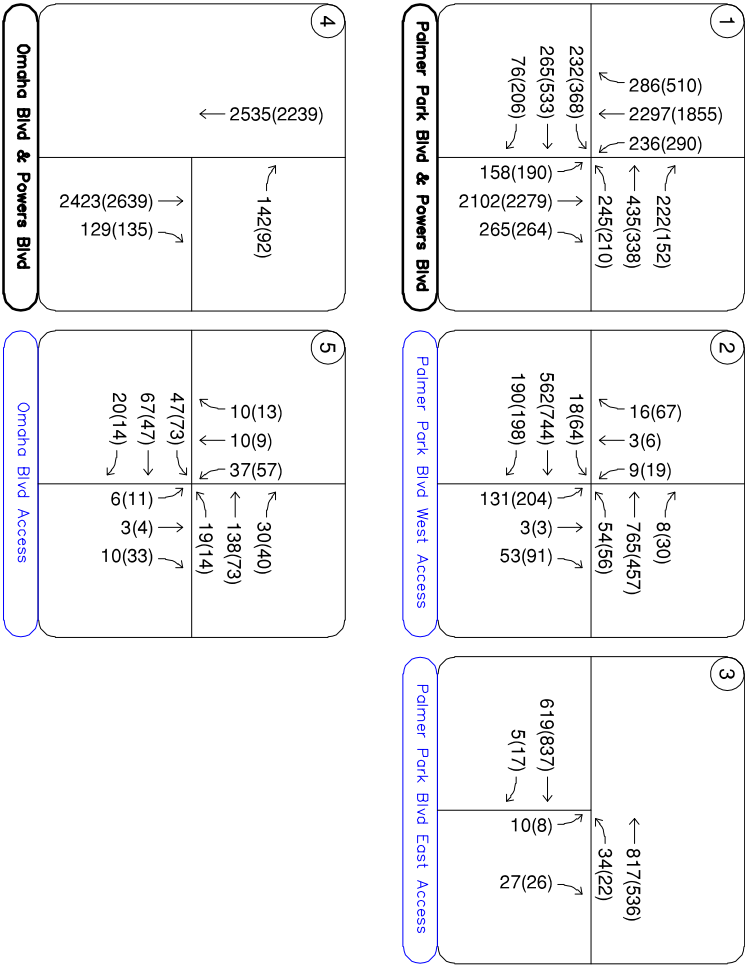
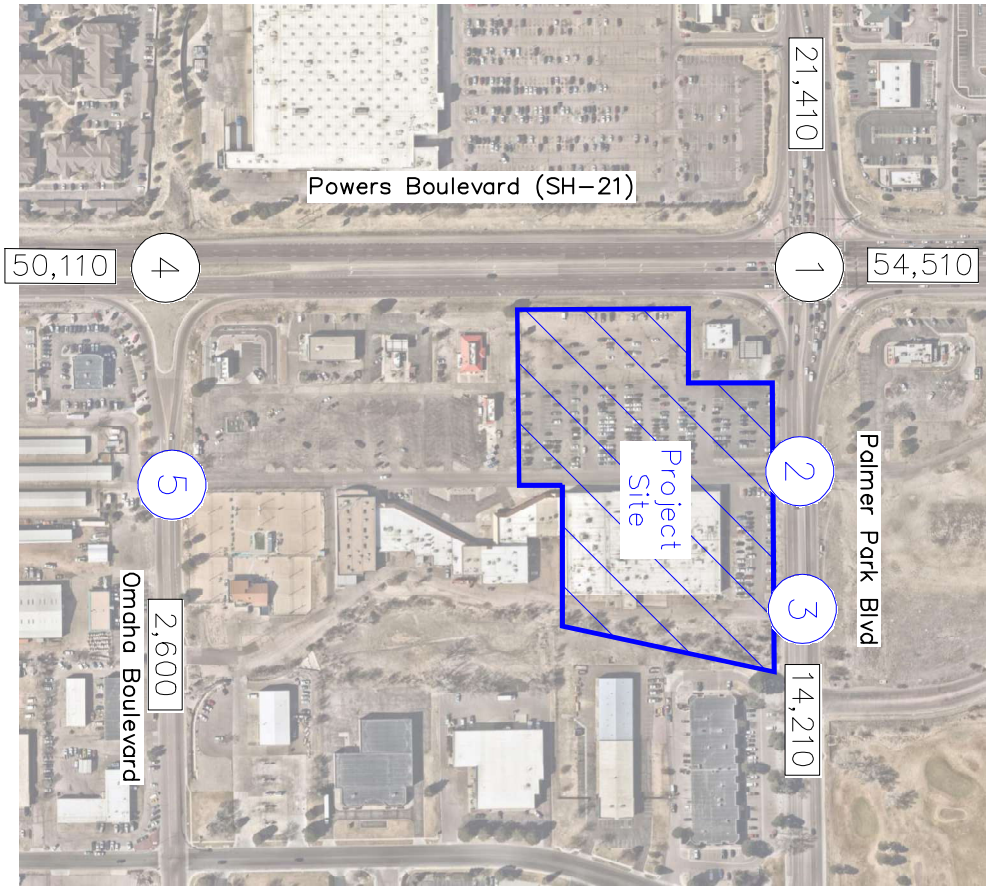


FIGURE 8
Palmer Park and Powers VASA
El Paso County, Colorado
2026 Total Traffic Volumes





LEGEND

X

Study Area Key Intersection

X

Project Access Intersection

XXX(XXX)

Weekday AM(PM)

XXX(XXX)

Peak Hour Traffic Volumes

XX.X00

Estimated Daily Traffic Volume

FIGURE 9
Palmer Park and Powers VASA
El Paso County, Colorado
2046 Total Traffic Volumes

5.0 TRAFFIC OPERATIONS ANALYSIS

Kimley-Horn’s analysis of traffic operations in the site vicinity was conducted to determine potential capacity deficiencies in the 2026 and 2046 development horizons at the identified key intersections. The acknowledged source for determining overall capacity is the *Highway Capacity Manual (HCM)*².

5.1 Analysis Methodology

Capacity analysis results are listed in terms of Level of Service (LOS). LOS is a qualitative term describing operating conditions a driver will experience while traveling on a particular street or highway during a specific time interval. It ranges from A (very little delay) to F (long delays and congestion). Based on El Paso County standards, the threshold for acceptable LOS is not less than LOS D during peak hours. **Table 2** shows the definition of level of service for signalized and unsignalized intersections.

Table 2 – Level of Service Definitions

Level of Service	Signalized Intersection Average Control Delay (sec/veh)	Unsignalized Intersection Average Control Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

Definitions provided from the Highway Capacity Manual, Seventh Edition, Transportation Research Board, 2022.

Study area intersections were analyzed based on average total delay analysis for signalized and unsignalized intersections. Under the unsignalized analysis, the LOS for a two-way stop-controlled intersection is determined by the computed or measured control delay and is defined for each critical movement. LOS for a two-way stop-controlled intersection is not defined for the intersection as a whole. LOS for signalized, intersections are defined for each approach and for the overall intersection.

² Transportation Research Board, *Highway Capacity Manual*, Seventh Edition, Washington DC, 2022.

5.2 Key Intersection Operational Analysis

Calculations for the operational level of service at the key intersections for the study area are provided in **Appendix E**. The existing year analysis is based on the lane geometry and intersection control shown in **Figure 2**. Existing peak hour factors were utilized in the existing and 2026 horizon analysis years while the HCM urban standard of 0.92 was used for the long-term 2046 horizon analysis at intersections where this peak hour was not yet achieved in existing conditions. The existing heavy vehicle percentages obtained from the turning movement counts were also used in each horizon year. The signalized intersection analysis utilizes the observed cycle lengths with optimized phasing and timing. Synchro traffic analysis software was used to analyze the signalized and unsignalized key intersections for HCM level of service.

Palmer Park Boulevard and Powers Parkway (SH-21) (#1)

The signalized intersection of Palmer Park Boulevard and Powers Boulevard (SH-21) (#1) operates with protected-only left turn phasing on all four approaches. The intersection movements operate acceptably at LOS C during both peak hours under existing conditions. With project traffic, the intersection is anticipated to continue operating at an acceptable level of service throughout the 2046 horizon. Therefore, no improvements or modifications are anticipated to be needed at this intersection based on the addition of project traffic and this operational level of service analysis. **Table 3** provides the results of the LOS analysis conducted at this intersection.

Table 3 – Palmer Park Boulevard and Powers Parkway (SH-21) (#1) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2025 Existing	33.5	C	34.1	C
2026 Background	34.0	C	34.5	C
2026 Background Plus Project	35.2	D	36.5	D
2046 Background	46.9	D	44.6	D
2046 Background Plus Project	49.7	D	49.5	D

Palmer Park Boulevard West Access (#2)

The existing Palmer Park Boulevard and West Access (#2) intersection is signalized with permissive left turn phasing on all four approaches. The intersection movements operate acceptably at LOS B during both peak hours under existing conditions. With project traffic, the intersection is anticipated to continue operating at an acceptable level of service throughout the 2046 horizon. Therefore, no improvements or modifications are anticipated to be needed at this intersection based on the addition of project traffic and this operational level of service analysis. **Table 4** provides the results of the LOS analysis conducted at this intersection. The afternoon peak hour in the total conditions used optimized timings, which provided additional green time for the northbound/southbound approaches. A sensitivity analysis for this intersection was conducted to determine whether providing protected-permissive left turn phasing for northbound left turning movements would improve operations or vehicle queues. With this modification, the overall intersection delay increases slightly but would provide a dedicated protected portion of signal phasing for northbound left turning movements. In addition, the north and south legs of the intersections are not striped but provide adequate width to accommodate a separate left turn lane and a shared through/right turn lane. From a traffic engineering standpoint, it would be beneficial to have designated turn lanes striped on both legs, however, restriping designated turn lanes and any traffic signal timing modifications are not being recommended for improvement as a part of this project.

Table 4 – Palmer Park Boulevard West Access (#2) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2025 Existing	8.1	A	12.4	B
2026 Background	8.0	A	12.4	B
2026 Background Plus Project ¹	9.6	A	14.3	B
2046 Background	8.3	A	12.7	B
2046 Background Plus Project ¹	9.7	A	13.5	B
2046 Background Plus Project ² – Protected/Permissive	10.1	B	14.4	B

¹Optimized Timings in PM peak hour; ²Protected-permissive NB left turn phasing

Palmer Park Boulevard East Access (#3)

The existing 'T' intersection of the Palmer Park Boulevard East Access (#3) currently operates under stop control for the minor northbound approach. The intersection movements operate acceptably at LOS B or better during both peak hours under existing conditions. With project traffic, all movements are anticipated to continue operating at an acceptable level of service throughout the 2046 horizon. Therefore, no improvements or modifications are anticipated to be needed at this intersection based on the addition of project traffic and this operational level of service analysis. **Table 5** provides the results of the LOS analysis conducted at this intersection.

Table 5 – Palmer Park Boulevard East Access (#3) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2025 Existing				
Northbound Approach	10.7	B	11.6	B
Westbound Left	8.7	A	9.1	A
2026 Background				
Northbound Approach	10.8	B	11.7	B
Westbound Left	8.2	A	9.1	A
2026 Background Plus Project				
Northbound Approach	11.2	B	13.4	B
Westbound Left	8.2	A	9.2	A
2046 Background				
Northbound Approach	12.1	B	13.5	B
Westbound Left	8.5	A	9.8	A
2046 Background Plus Project				
Northbound Approach	12.7	B	15.9	C
Westbound Left	8.5	A	9.9	A

Omaha Boulevard and Powers Parkway (SH-21) (#4)

The unsignalized T-intersection of Omaha Boulevard and Powers Boulevard (SH-21) (#4) operates with movements on Omaha Boulevard restricted to right-in/right-out (RIRO) only and no control. Because the turning movements at this intersection operate with free movement, the intersection movements operate with no reportable delay and as such, with project traffic, all movements are anticipated to continue operating at an acceptable level of service throughout the 2046 horizon. Therefore, no improvements or modifications are anticipated to be needed at this intersection based on the addition of project traffic and this operational level of service analysis.

Omaha Boulevard South Access (#5)

The existing Omaha Boulevard South Access (#5) intersection operates with stop control on the northbound and southbound access approaches. The intersection movements operate acceptably at LOS B or better during both peak hours under existing conditions. With project traffic, all movements are anticipated to continue operating at an acceptable level of service throughout the 2046 horizon. Therefore, no improvements or modifications are anticipated to be needed at this intersection based on the addition of project traffic and this operational level of service analysis. **Table 6** provides the results of the LOS analysis conducted at this intersection.

Table 6 – Omaha Boulevard South Access (#5) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2025 Existing				
Northbound Approach	9.9	A	9.3	A
Eastbound Left	7.6	A	7.5	A
Westbound Left	7.4	A	7.3	A
Southbound Approach	11.0	B	10.6	B
2026 Background				
Northbound Approach	9.9	A	9.3	A
Eastbound Left	7.6	A	7.5	A
Westbound Left	7.4	A	7.3	A
Southbound Approach	11.0	B	10.6	B
2026 Background Plus Project				
Northbound Approach	10.0	A	9.4	A
Eastbound Left	7.6	A	7.5	A
Westbound Left	7.4	A	7.3	A
Southbound Approach	11.2	B	11.0	B
2046 Background				
Northbound Approach	10.4	B	9.6	A
Eastbound Left	7.7	A	7.5	A
Westbound Left	7.4	A	7.4	A
Southbound Approach	12.0	B	11.4	B
2046 Background Plus Project				
Northbound Approach	10.5	B	9.7	A
Eastbound Left	7.7	A	7.6	A
Westbound Left	7.4	A	7.4	A
Southbound Approach	12.2	B	11.9	B

5.3 CDOT Auxiliary Turn Lane Warrant & Length Evaluation

The threshold for requiring an access permit along Colorado Department of Transportation (CDOT) roadways occurs when project traffic is anticipated to increase the existing access traffic volumes by more than 20 percent. Based on traffic projections, the addition of project traffic on all

minor street legs of either Power Boulevard (SH-21) intersection is not anticipated to increase existing access traffic volumes by more than 20 percent, with the maximum expected increase at 12.1 percent during the afternoon peak hour on the east leg of the Palmer Park Boulevard and Powers Boulevard (SH-21) intersection (156 project vehicles/1,291 existing vehicles). Therefore, a CDOT access permit is not anticipated to be required in association with this project.

However, with the future planned commercial development of the northeast corner of Palmer Park Boulevard and the associated changes to the east leg of Palmer Park Boulevard, an access permit has been requested by CDOT. Part of the agreed upon access permit includes \$60,036 of escrow to be held by CDOT for future intersection improvements.

5.4 El Paso County Turn Lane Analysis

Auxiliary turn lanes along El Paso County controlled roadways are to be implemented and designated based on the standards defined in the El Paso County Engineering Criteria Manual (ECM) Section 2.3.7.E. Turn Lane lengths are based on several criteria including, roadway classification, posted speed limit, and movement volumes. Under ECM standards both left and right turn lanes require a storage length, deceleration length, and a bay taper (included in the deceleration length). Turn lane lengths for movements which the project traffic contributes to were analyzed based on these standards along both Palmer Park Boulevard and Omaha Boulevard.

Palmer Park Boulevard and Powers Boulevard (SH-21)

- Dual westbound left turn lanes at the intersection of Palmer Park Boulevard and Powers Boulevard (SH-21) currently exist and provide 175 feet of full length storage and a 75-foot taper. According to Table 2-26 and a posted speed limit of 35 mph, this turn lane is required to provide 135 feet of full width turn lane length with 140 feet of taper length. In addition, approximately 150 feet of storage is required based on Figure 2-27 in the ECM, a left turning volume of 199 vph during the peak hours, and two turn lanes. Therefore, the existing turn lane length is substandard but no modification is recommended at this time due to existing geometry restrictions.
- A westbound right turn lane at the intersection of Palmer Park Boulevard and Powers Boulevard (SH-21) currently exists and provides approximately 50 feet of full width storage. Table 2-24 of the ECM requires 135 feet of lane length for right turn lanes and an approach taper of 140 feet with a 35-mph posted speed limit. As this is a channelized free

movement with an acceleration lane, storage and deceleration standards are not believed to be applicable to this movement as these vehicles would not be decelerating to a stop nor being stored in this turn lane as it operates with free movement. Therefore, no modification is recommended for the westbound right turn lane at the intersection of Palmer Park Boulevard and Powers Boulevard (SH-21).

Palmer Park Boulevard West Access

- The eastbound right turn lane at the Palmer Park Boulevard West Access currently provides the maximum available length based on proximity to the Palmer Park Boulevard and Powers Boulevard (SH-21) intersection to the west which is approximately 250 feet as a combination acceleration/deceleration lane. Based on ECM Table 2-24, which provides turn lane requirements for right turn lanes and a posted speed limit of 35 mph, this turn lane is required to provide 135 feet of full width turn lane length with 140 feet of taper length. Therefore, the turn lane length is substandard but no improvement is recommended due to the restrictive existing geometry.
- The westbound left turn lane at the intersection of Palmer Park Boulevard West Access provides 175 feet of full width striped turn lane followed by 235 feet of full width in a two way left turn lane (TWLTL). Based on ECM Table 2-24 and a posted speed limit of 35 mph, this turn lane is required to provide 135 feet of full width turn lane length with 140 feet of taper length. In addition, 50 feet of turn lane length is required due to a left turning volume of 44 vph during the peak hour and the minimum storage length be 50 feet based on Figure 2-27. Therefore, the existing westbound left turn lane at the Palmer Park Boulevard West Access is acceptable based on a minimum 185 feet of full width and a 140 foot taper and no improvement is recommended at this time.

Palmer Park Boulevard East Access

- The westbound left turn lane at the intersection of Palmer Park Boulevard West Access provides continuous full width by a two way left turn lane (TWLTL). Based on ECM Table 2-24 and a posted speed limit of 35 mph, this turn lane is required to provide 135 feet of full width turn lane length with 140 feet of taper length. In addition, 50 feet of turn lane length is required due to a left turning volume of 27 vph during the peak hour and the minimum storage length be 50 feet based on Table 2-30. Therefore, the existing westbound left turn lane at the Palmer Park Boulevard West Access is acceptable based

on a minimum 185 feet of full width and a 140 foot taper and no improvement is recommended at this time.

Omaha Boulevard and Powers Boulevard (SH-21)

- A westbound right turn lane at the intersection of Omaha Boulevard and Powers Boulevard (SH-21) currently exists and provides continuous full width storage. As this is a channelized free movement with an acceleration lane and no other turning movement type allowed on approach to Powers Boulevard, no modification is recommended for the westbound right turn lane at the intersection of Omaha Boulevard and Powers Boulevard (SH-21).

Omaha Boulevard Access

- The eastbound left turn lane at the intersection of Omaha Boulevard Access provides approximately 75 feet of full width turn lane with an approximately 120-foot taper based on existing geometry constraints. Based on ECM Table 2-24 and a posted speed limit of 40 mph, this turn lane is required to provide 155 feet of full width turn lane length with a 160-foot taper. In addition, 50 feet of turn lane length is required due to a left turning volume of 49 vph during the peak hour based on Table 2-30. Therefore, the existing turn lane length is substandard but no improvement is recommended at this time due to existing geometry restrictions.

In summary, most of the existing turn lanes along Palmer Park Boulevard and Omaha Boulevard to the east of Powers Boulevard are substandard and do not meet El Paso County ECM criteria due to intersections being closely spaced to each other.

5.5 Vehicle Queuing Analysis

A vehicle queuing analysis was conducted for the study area intersections. The queuing analysis was performed using Synchro presenting the results of the 95th percentile queue lengths. Of note, a minimum queue of 25 feet (approximately one vehicles) was assumed for all turn lanes where vehicle queues are expected to occur. Results are shown in the following **Table 7** with calculations provided within the level of service operational sheets of **Appendix E** for unsignalized intersections and **Appendix F** for signalized intersections.

Table 7 – Turn Lane Queuing Analysis Results

Intersection Turn Lane	Existing Turn Lane Length	2026 Calculated Queue (AM/PM)	2026 Recommended Length	2046 Calculated Queue (AM/PM)	2046 Recommended Length
Palmer Park & Powers (#1)					
Eastbound Left	300'/375' DL	142'/197'	300'/375' DL	185'/257'	300'/375' DL
Westbound Left	175' DL	134'/125'	175' DL	189' /151'	175' DL
Westbound Through	325'	331' /225'	325'	438' /288'	325'
Northbound Left	900' DL	106'/115'	900' DL	128'/140'	900' DL
Northbound Right	C	66'/69'	C	110'/108'	C
Southbound Left	825' DL	144'/196'	825' DL	174'/257'	825' DL
Palmer West Access (#2)					
Eastbound Left	100'	25'/25'	100'	25'/25'	100'
Eastbound Through	325'	25'/25'	325'	222'/28'	325'
Eastbound Right	325' C	25'/25'	325' C	87'/25'	325' C
Westbound Left	175'	25'/33'	175'	29'/47'	175'
Northbound Left	C	179'/255'	C	201'/282'	C
Southbound Left	75'	25'/33'	75'	27'/38'	75'
Palmer West Access (#2) – Protected/Permissive					
Eastbound Left	100'			25'/25'	100'
Eastbound Through	325'			321'/69'	325'
Eastbound Right	325' C			144'/25'	325' C
Westbound Left	175'			36'/51'	175'
Northbound Left	C			179'/251'	C
Southbound Left	75'		Not Analyzed	31'/49'	75'
Palmer East Access (#3)					
Eastbound Left	TWLTL	25'/25'	TWLTL	25'/25'	TWLTL
Northbound Approach	C	25'/25'	C	25'/25'	C
Omaha South Access (#5)					
Eastbound Left	75'	25'/25'	75'	25'/25'	75'
Westbound Left	TWLTL	25'/25'	TWLTL	25'/25'	TWLTL

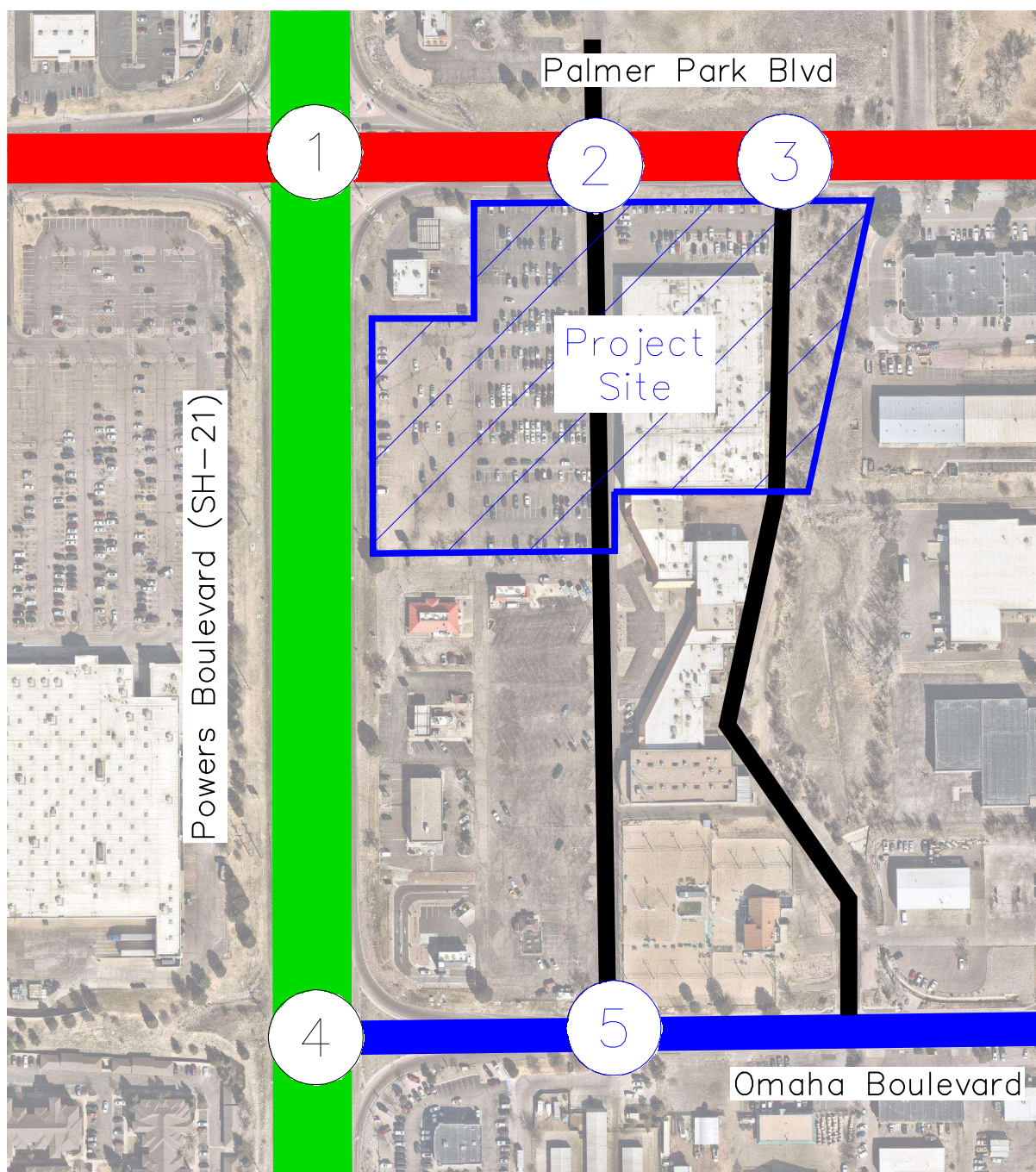
DNE = Does Not Exist; C = Continuous; DL = Dual Left Turn Lanes; TWLTL = Two-Way Left Turn Lane;
Red Text = Turn Lane Constraint

All queues are anticipated to remain within the existing or recommended turn lane lengths through 2046 except for the westbound left and westbound through movement at the intersection of Palmer Park Boulevard and Powers Boulevard (SH-21) (#1). If the full volumes are realized by 2046, approximately one vehicle making the westbound left movement in the morning peak hour may have to queue in the westbound through lane. In addition, because the intersection of Palmer Park Boulevard and Powers Boulevard (SH-21) (#1) and the Palmer Park Boulevard West Access (#2) are only spaced approximately 425 feet apart, measured center to center, the westbound queue at the intersection of Palmer Park Boulevard and Powers Boulevard (SH-21) (#1) may extend through the Palmer Park Boulevard West Access (#2) intersection at times during the peak hours. Based on the analysis conducted in this study, the northbound left turn queue at the signalized Palmer Park Boulevard West Access (#2) may extend approximately 280 feet into the

site by 2046 during the afternoon peak hour. A sensitivity analysis was conducted for this movement to determine whether improving this movement to operate with protected-permissive left turn phasing would minimize the vehicle queues and this reduced queues by approximately 30 feet during the afternoon peak hour. However, eastbound through queues increased as less time was able to be dedicated to eastbound/westbound traffic.

5.6 Access Spacing Requirements and Internal Roadway Classifications

According to El Paso County Major Transportation Corridors Plan Update, Powers Boulevard is classified as a Freeway, Palmer Park Boulevard is classified as a Principal Arterial, and Omaha Boulevard is classified as a Collector. The accesses for the project are existing for the current retail center; therefore, no modifications are recommended for the placement of accesses for the existing retail center. **Figure 10** illustrates the road classifications.



LEGEND

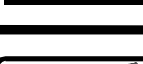
-  Freeway
-  Urban Minor Arterial
-  Urban Major Collector
-  Private

FIGURE 10
Palmer Park and Powers VASA
El Paso County, Colorado
Road Classification Map

5.7 Sight Distance Evaluation

It is recommended that sight triangles be analyzed at all site access points to give drivers exiting the site a clear view of oncoming traffic. Landscaping and objects within sight triangles must not obstruct drivers' views of the adjacent travel lanes. The El Paso County Engineering Criteria Manual (ECM) design intersection/driveway sight distances for left and right turn from stop were evaluated at the existing East Access along Palmer Park Boulevard and the existing South Access along Omaha Boulevard. The other intersections within the study area are either signalized or uncontrolled and do not require sight distances for entering from minor approach. The following identifies sight distance requirements for the applicable access intersection associated with the project:

Palmer Park Boulevard East Access (#3)

According to Table 2-35 from the ECM and a posted speed of 35 miles per hour along Palmer Park Boulevard, the entering sight distance for a vehicle entering the major street (Palmer Park Boulevard) from a driveway is 420 feet for passenger vehicles. Therefore, all obstructions for left and right turning vehicles from stop should be clear to the left and right within the triangle created with a vertex point located 10 feet from the edge of the major road traveled way and a line-of sight distance of 420 feet located in the middle of both the westbound (for left turning only) and eastbound (for both left and right turning) through lanes along Palmer Park Boulevard according to ECM standards. It is believed that the existing Palmer Park Boulevard East Access (#3) currently provides the necessary sight distances as shown in the image below as requested by El Paso County staff for this access location.



Sight distance requirement for Palmer Park Boulevard East Access (#3)

Omaha Boulevard South Access (#5)

According to Table 2-35 from the ECM and a posted speed of 40 miles per hour along Omaha Boulevard, the intersection sight distance for a vehicle entering the major street (Omaha Boulevard) from a driveway is 445 feet for passenger vehicles. Therefore, all obstructions for left and right turning vehicles from stop should be clear to the left and right within the triangle created with a vertex point located 13 feet from the edge of the major road traveled way and a line-of sight distance of 445 feet located in the middle of both the eastbound (for left turning only) and westbound (for both left and right turning) through lanes along Omaha Boulevard. It is believed that the existing access along Omaha Boulevard currently provides the necessary sight distances.

5.8 Bicycle and Pedestrian Access

Sidewalks are not present on either side Powers Boulevard or Omaha Boulevard within the study limits. Sidewalks are provided along Palmer Park Boulevard west of Powers Boulevard but are not provided east of Powers Boulevard within the project limits. Pedestrian crosswalks are provided on each leg of the Palmer Park Boulevard and Powers Boulevard intersection. There are not any designated bike lanes along the studied roadways within the project limits.

5.9 Road Impact Fees

Road impact fees were evaluated based on the El Paso County Road Impact Fee Schedule. Based on these fee schedule guidelines, the fee per general commercial building—the most applicable land use available per the fee schedule—is \$5,498 per 1,000 square feet of building space. Therefore, the road impact fee for the existing 68,212 square foot fitness center is expected to be \$375,030. However, this building is not a new construction and was a tenant conversion of a Kmart of the same approximate building size. The roadways would have been designed to accommodate the traffic generated by the Kmart at the time it was constructed and the traffic generation based on the ITE Trip Generation Manual would have generated more trips as a free-standing discount superstore than a health/fitness club. As such, because this is not a new building, it is not believed road impact fees are applicable for this site as a tenant conversion. Road impact fee calculations are shown in **Table 8**.

Table 8 – Road Impact Fees

Applicable Land Use	Square Feet (SF)	Fee / 1,000 SF	Total Fee
General Commercial	68,212	\$5,498	\$375,030

5.10 Crash Summary

As requested by El Paso County staff, a crash summary of the Palmer Park Boulevard West Access (#2) was conducted based on CDOT data from 2023 through 2025. Over the past three years of available data, there have been ten (10) total reported crashes at or near this signalized access location. Of these ten crashes, five (5) have been attributed to broadside collisions, two (2) have been approach turn, and one (1) each to sideswipe same direction, head-on, and overtaking turn. These crashes included 27 total people, 22 of which experienced no injury—81 percent of all people involved in these crashes—while two (2) reported possible injuries, and three (3) people were suspected minor injury. There were no reported major injuries or fatalities at this intersection over the past three years. These are summarized in **Table 9** and **Table 10**, respectively. CDOT crash data are included in **Appendix G**.

Table 9 – Crashes by Type

Type	Total # Crashes
Broadside	5
Approach Turn	2
Sideswipe Same Direction	1
Head-On	1
Overtaking Turn	1
Total	10

Table 10 – Crashes by Severity

Severity	# People in Crashes	%
No Injury	22	81%
Possible Injury	2	7%
Minor Injury	3	11%
Major Injury	0	0%
Fatality	0	0%
Total	27	100%

5.11 Improvement Summary

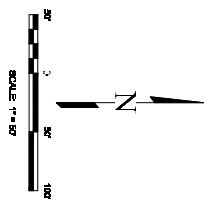
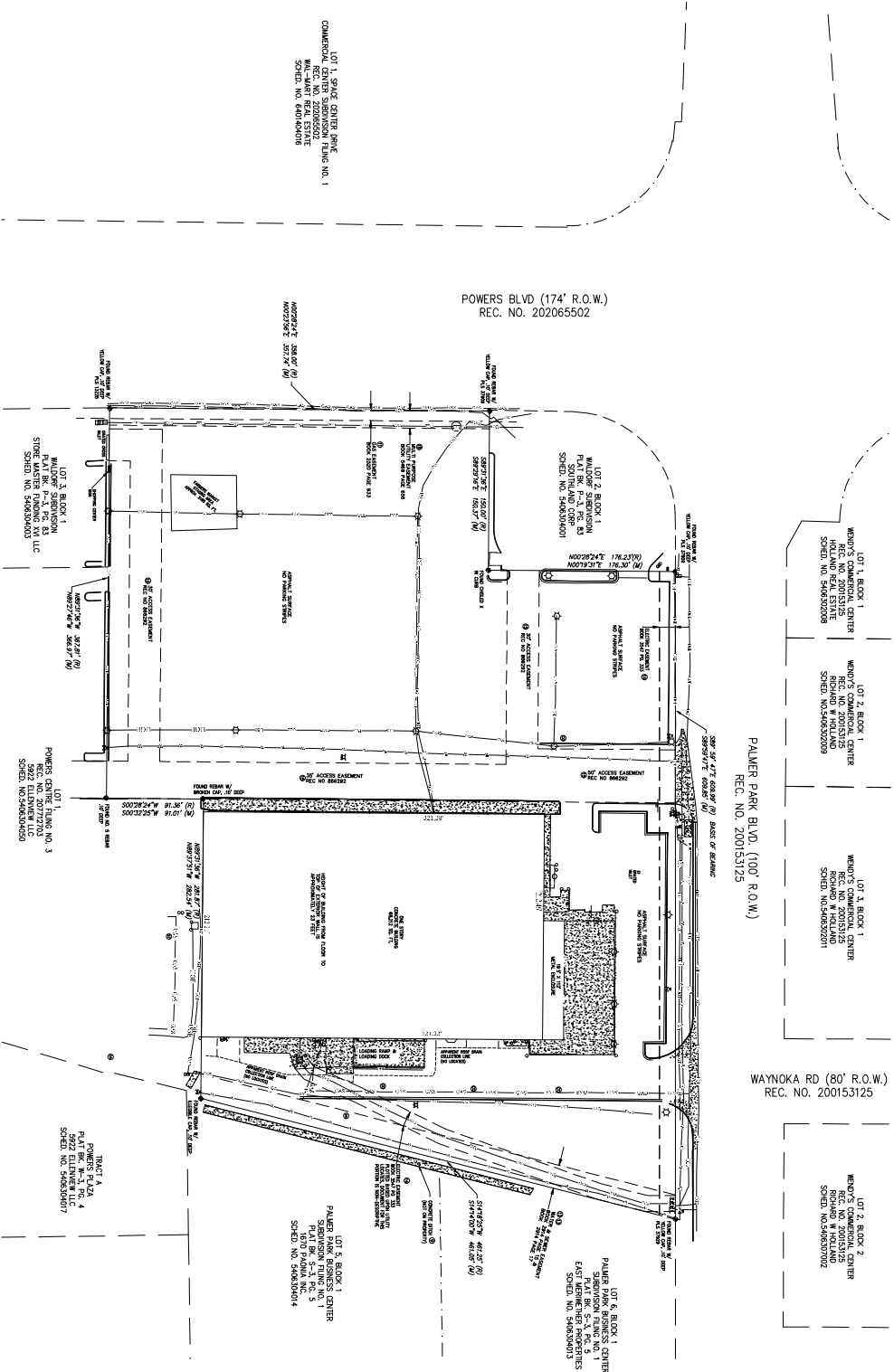
Based on the results of the intersection operational and vehicle queuing analysis, all key intersections are anticipated to continue operating acceptably throughout the 2046 horizon. Therefore, no improvements or modifications are anticipated to be needed due to the Palmer Park and Powers VASA.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis presented in this report, Kimley-Horn believes Palmer Park and Powers VASA will be successfully incorporated into the existing and future roadway network. Analysis of the existing street network, the proposed project development, and expected traffic volumes resulted in the following conclusions and recommendations:

- Based on traffic projections, the addition of project traffic on all legs of either Power Boulevard (SH-21) intersection is not anticipated to increase existing access traffic volumes by more than 20 percent. Therefore, a CDOT access permit is not anticipated to be required in association with this project. However, with the future planned commercial development of the northeast corner of Palmer Park Boulevard and the associated change to the east leg of Palmer Park Boulevard, an access permit has been requested by CDOT. Part of the agreed upon access permit includes \$60,036 of escrow to be held by CDOT for future intersection improvements.
- Road impact fees were evaluated based on the El Paso County Road Impact Fee Schedule. Based on these fee schedule guidelines, the fee per general commercial building is \$5,498 per 1,000 square feet of building space. Therefore, the road impact fee for the existing 68,212 square foot fitness center is expected to be \$375,030. However, this building is not a new construction and was a tenant conversion of a Kmart of the same approximate building size. The roadways would have been designed to accommodate the traffic generated by the Kmart at the time it was constructed. As such, because this is not a new building, it is not believed road impact fees are applicable for this site as a tenant conversion.
- No modifications are recommended at this time for intersections or turn lanes as a part of this study. As additional development to the north and south of this site occurs, it is understood that modifications to the intersections along Palmer Park Boulevard may occur, including relocating the traffic signal from the West Access (#2) to the East Access (#3), realignment of Waynoka Road, and possible restriction of the West Access (#2) to be right-in/right-out movements only.
- Any onsite or offsite improvements should be incorporated into the Civil Drawings and conform to standards of the El Paso County, Colorado Department of Transportation (CDOT), and the Manual on Uniform Traffic Control Devices (MUTCD) – 11th Edition, 2023.

Appendix A: Conceptual Site Plan



- [illegible]

REPORTING	PLAN
CHECKED	PLAN
DATE	03-14-20
FOR FILE	200910

NOTICE

ACCORDING TO CALIFORNIA LAW YOU MUST, UNDER PENALTY OF PERJURY, SIGN ANY INSTRUMENT WITHIN THREE HOURS AFTER YOUR FIRST RECEIPT OF THIS INSTRUMENT. IF YOU DO NOT SIGN WITHIN THIS TIME FRAME, YOUR SIGNATURE WILL BE INVALID. IN THIS SURETY, THE COVENANTS WERE MADE MORE THAN TEN YEARS FROM THE DATE OF THE DISTRIBUTION SHOWN HEREIN.

 **CENTENNIAL
LANDMARK**
SERVICES, INC.
P.O. BOX 10000, TAMPA, FL 33610
CORPORATE SERVICES CO. 800.818.8188



Appendix B: Intersection Count Sheets



Note: For complete count summary (all intervals), see following pages.

*** Heavy Vehicle Classifications include FHWA Classes 4-13.*

*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

tj.wethington@idaxdata.com

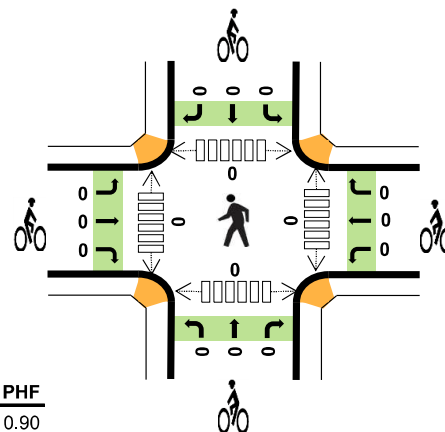
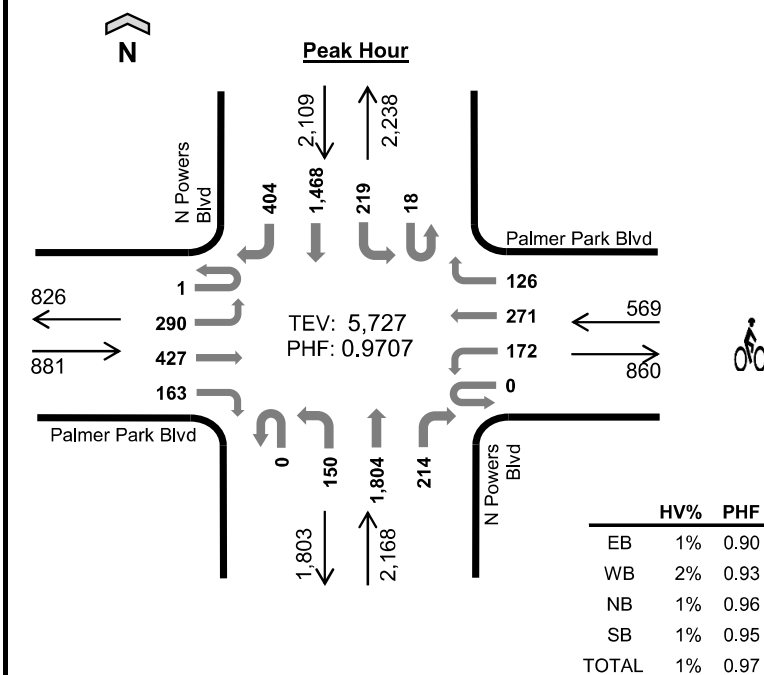
Count Summaries - All Vehicles																			
Interval Start		Palmer Park Blvd				Palmer Park Blvd				N Powers Blvd				N Powers Blvd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	72	43	9	0	69	41	38	0	10	383	52	0	41	423	40	1,221	0
7:15 AM		0	37	57	12	0	53	93	44	1	26	406	51	1	37	479	53	1,350	0
7:30 AM		0	55	48	12	0	55	88	44	0	38	482	55	2	31	369	43	1,322	0
7:45 AM		0	51	59	22	0	44	74	49	2	35	432	58	5	60	514	77	1,482	5,375
8:00 AM		0	41	48	14	0	45	91	42	1	22	344	48	4	62	456	53	1,271	5,425
8:15 AM		0	30	51	13	0	37	64	30	0	38	408	34	8	48	362	68	1,191	5,266
8:30 AM		0	60	53	14	1	43	46	30	0	36	345	29	10	42	421	71	1,201	5,145
8:45 AM		0	45	53	16	0	37	55	27	0	30	349	30	2	58	340	54	1,096	4,759
Count Total		0	391	412	112	1	383	552	304	4	235	3,149	357	32	379	3,364	459	10,134	
PkHr	All	0	184	212	60	0	197	346	179	4	121	1,664	212	12	190	1,818	226	5,425	
	HV	0	4	4	2	0	5	1	12	0	3	75	8	0	4	42	5	165	
	HV%	-	2%	2%	3%	-	3%	0%	7%	0%	2%	5%	4%	0%	2%	2%	2%	3%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	3	2	11	8	24	0	0	0	0	0	0	0	0	0	0
7:15 AM	1	5	24	15	45	0	0	0	0	0	0	0	0	0	0
7:30 AM	3	6	23	11	43	0	0	0	0	0	0	0	0	0	0
7:45 AM	5	3	23	12	43	0	0	0	0	0	0	0	0	0	0
8:00 AM	1	4	16	13	34	0	0	0	0	0	0	0	0	0	0
8:15 AM	2	7	20	10	39	0	0	0	0	0	0	0	0	0	0
8:30 AM	6	5	15	24	50	0	0	0	0	0	0	0	0	1	1
8:45 AM	5	7	14	22	48	0	0	0	0	0	1	0	1	0	2
Count Total	26	39	146	115	326	0	0	0	0	0	1	0	1	1	3
Peak Hour	10	18	86	51	165	0	0	0	0	0	0	0	0	0	0

Count Summaries - Heavy Vehicles																		
Interval Start	Palmer Park Blvd				Palmer Park Blvd				N Powers Blvd				N Powers Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	1	2	0	0	1	0	1	0	0	11	0	0	4	4	0	24	0
7:15 AM	0	0	1	0	0	2	0	3	0	1	21	2	0	1	12	2	45	0
7:30 AM	0	1	0	2	0	2	1	3	0	1	21	1	0	2	7	2	43	0
7:45 AM	0	2	3	0	0	1	0	2	0	0	21	2	0	1	11	0	43	155
8:00 AM	0	1	0	0	0	0	0	4	0	1	12	3	0	0	12	1	34	165
8:15 AM	0	1	1	0	0	3	1	3	0	2	17	1	0	3	6	1	39	159
8:30 AM	0	3	1	2	0	3	2	0	0	2	13	0	2	0	19	3	50	166
8:45 AM	0	0	3	2	0	2	3	2	0	0	14	0	0	1	21	0	48	171
Count Total	0	9	11	6	0	14	7	18	0	7	130	9	2	12	92	9	326	
Pk Hr Heavy	0	4	4	2	0	5	1	12	0	3	75	8	0	4	42	5	165	
Count Summaries - Bikes																		
Interval Start	Palmer Park Blvd				Palmer Park Blvd				N Powers Blvd				N Powers Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	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	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	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	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



Date: 1/9/2025
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



Peak Hour Count Summaries

Peak Hour Interval Start		Palmer Park Blvd				Palmer Park Blvd				N Powers Blvd				N Powers Blvd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	68	106	45	0	37	83	27	0	39	464	61	5	55	359	108	1,457	0
4:15 PM		0	72	135	37	0	52	51	30	0	44	445	48	3	63	400	90	1,470	0
4:30 PM		1	88	91	40	0	38	74	41	0	35	475	52	3	45	385	107	1,475	0
4:45 PM		0	62	95	41	0	45	63	28	0	32	420	53	7	56	324	99	1,325	5,727
Pk Hr	All	1	290	427	163	0	172	271	126	0	150	1,804	214	18	219	1,468	404	5,727	
	HV	0	4	9	0	0	9	1	2	0	3	10	6	0	2	24	1	71	
	HV%	0%	1%	2%	0%	-	5%	0%	2%	-	2%	1%	3%	0%	1%	2%	0%	1%	

Note: For complete count summary (all intervals), see following pages.

**** Heavy Vehicle Classifications include FHWA Classes 4-13.**

**** Count Summaries include heavy vehicles, but exclude bicycles in overall count.**

[illegible]

Count Summaries - All Vehicles																			
Interval Start		Palmer Park Blvd				Palmer Park Blvd				N Powers Blvd				N Powers Blvd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	68	106	45	0	37	83	27	0	39	464	61	5	55	359	108	1,457	0
4:15 PM		0	72	135	37	0	52	51	30	0	44	445	48	3	63	400	90	1,470	0
4:30 PM		1	88	91	40	0	38	74	41	0	35	475	52	3	45	385	107	1,475	0
4:45 PM		0	62	95	41	0	45	63	28	0	32	420	53	7	56	324	99	1,325	5,727
5:00 PM		0	71	95	18	0	39	74	41	0	40	404	54	2	64	269	68	1,239	5,509
5:15 PM		0	62	117	16	0	32	69	52	0	31	380	38	1	56	326	87	1,267	5,306
5:30 PM		0	78	106	13	0	11	81	31	0	31	272	35	0	40	318	71	1,087	4,918
5:45 PM		0	54	90	28	0	22	52	34	0	20	302	29	0	36	303	73	1,043	4,636
Count Total		1	555	835	238	0	276	547	284	0	272	3,162	370	21	415	2,684	703	10,363	
PkHr	All	1	290	427	163	0	172	271	126	0	150	1,804	214	18	219	1,468	404	5,727	
	HV	0	4	9	0	0	9	1	2	0	3	10	6	0	2	24	1	71	
	HV%	0%	1%	2%	0%	-	5%	0%	2%	-	2%	1%	3%	0%	1%	2%	0%	1%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	1	4	9	8	22	0	0	0	0	0	0	0	0	0	0
4:15 PM	5	4	4	4	17	0	0	0	0	0	0	0	0	0	0
4:30 PM	3	1	4	10	18	0	0	0	0	0	0	0	0	0	0
4:45 PM	4	3	2	5	14	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	8	7	16	0	0	0	0	0	0	0	0	0	0
5:15 PM	1	1	3	5	10	0	0	0	0	0	0	0	0	0	0
5:30 PM	1	0	2	2	5	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	1	1	3	0	0	0	0	0	0	0	0	0	0
Count Total	15	15	33	42	105	0	0	0	0	0	0	0	0	0	0
Peak Hour	13	12	19	27	71	0	0	0	0	0	0	0	0	0	0

Count Summaries - Heavy Vehicles																		
Interval Start	Palmer Park Blvd				Palmer Park Blvd				N Powers Blvd				N Powers Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	3	0	1	0	0	5	4	0	0	8	0	22	0
4:15 PM	0	0	5	0	0	3	1	0	0	1	3	0	0	0	3	1	17	0
4:30 PM	0	2	1	0	0	1	0	0	0	1	2	1	0	1	9	0	18	0
4:45 PM	0	2	2	0	0	2	0	1	0	1	0	1	0	1	4	0	14	71
5:00 PM	0	0	0	0	0	1	0	0	0	0	5	3	0	1	5	1	16	65
5:15 PM	0	0	1	0	0	0	1	0	0	0	3	0	0	0	4	1	10	58
5:30 PM	0	1	0	0	0	0	0	0	0	1	0	1	0	0	1	1	5	45
5:45 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	3	34
Count Total	0	5	10	0	0	11	2	2	0	4	19	10	0	4	34	4	105	
Pk Hr Heavy	0	4	9	0	0	9	1	2	0	3	10	6	0	2	24	1	71	
Count Summaries - Bikes																		
Interval Start	Palmer Park Blvd				Palmer Park Blvd				N Powers Blvd				N Powers Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	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	0	0	0	0	0
4:30 PM	0	0	0	0	0	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	0	0	0	0	0
5:00 PM	0	0	0	0	0	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	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

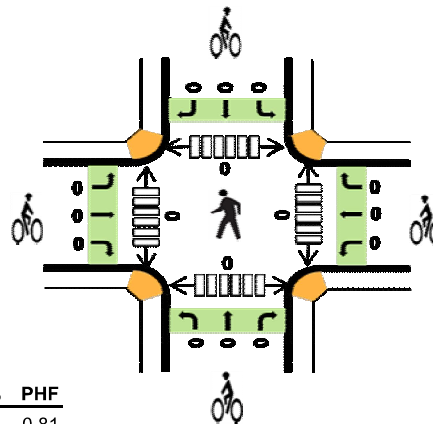
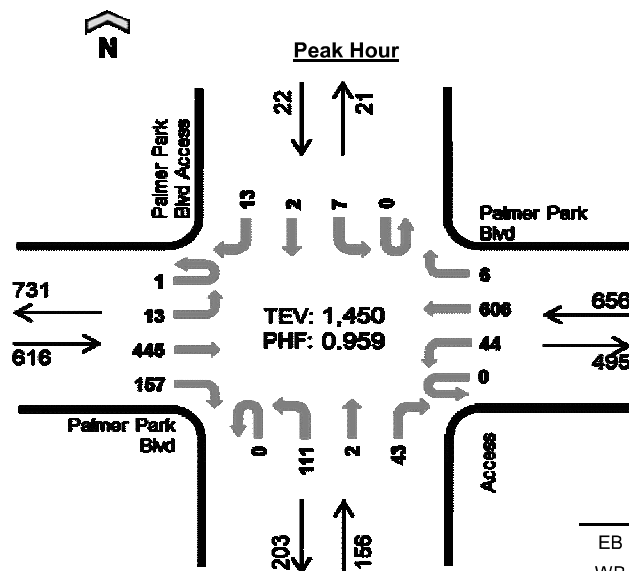
**Access
Palmer Park Blvd**



Date: 1/9/2025

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:15 AM to 8:15 AM



	HV%	PHF
EB	3%	0.81
WB	2%	0.92
NB	6%	0.89
SB	9%	0.79
TOTAL	3%	0.96

Peak Hour Count Summaries

Peak Hour Interval Start	Palmer Park Blvd				Palmer Park Blvd				Palmer Park Blvd Access				Palmer Park Blvd Access				15-min Total	Rolling Hour Total	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:15 AM	0	2	94	45	0	11	165	3	0	22	0	9	0	1	1	4	357	0	
7:30 AM	0	5	101	26	0	7	168	0	0	26	1	14	0	0	0	5	353	0	
7:45 AM	1	1	148	40	0	10	134	0	0	30	0	10	0	4	0	0	378	0	
8:00 AM	0	5	102	46	0	16	139	3	0	33	1	10	0	2	1	4	362	1,450	
Peak Hr	All	1	13	445	157	0	44	606	6	0	111	2	43	0	7	2	13	1,450	
	HV	0	0	14	3	0	1	13	1	0	8	0	2	0	2	0	0	44	
	HV%	0%	0%	3%	2%	-	2%	2%	17%	-	7%	0%	5%	-	29%	0%	0%	3%	

Note: For complete count summary (all intervals), see following pages.

**** Heavy Vehicle Classifications include FHWA Classes 4-13.**

**** Count Summaries include heavy vehicles, but exclude bicycles in overall count.**

[illegible]

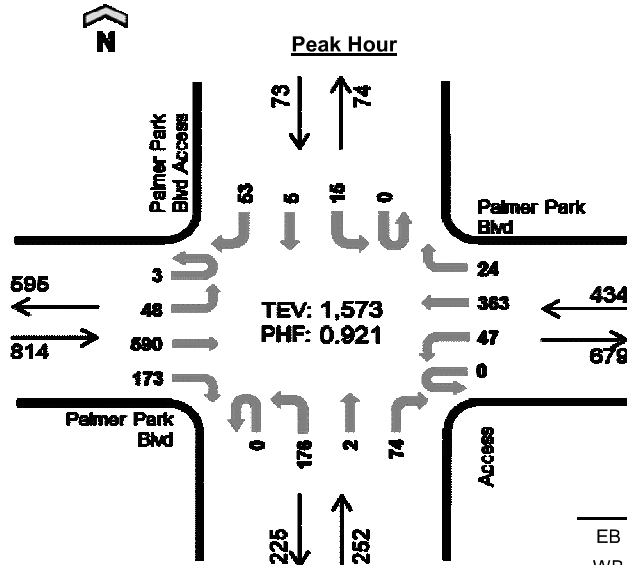
Count Summaries - All Vehicles																			
Interval Start		Palmer Park Blvd				Palmer Park Blvd				Palmer Park Blvd Access				Palmer Park Blvd Access				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		1	2	104	28	0	4	133	3	0	19	0	16	0	2	1	2	315	0
7:15 AM		0	2	94	45	0	11	165	3	0	22	0	9	0	1	1	4	357	0
7:30 AM		0	5	101	26	0	7	168	0	0	26	1	14	0	0	0	5	353	0
7:45 AM		1	1	148	40	0	10	134	0	0	30	0	10	0	4	0	0	378	1,403
8:00 AM		0	5	102	46	0	16	139	3	0	33	1	10	0	2	1	4	362	1,450
8:15 AM		1	3	89	40	0	13	91	0	0	24	2	9	0	2	1	2	277	1,370
8:30 AM		1	7	86	33	0	11	94	1	0	26	0	9	0	2	1	1	272	1,289
8:45 AM		0	5	83	52	0	19	81	2	0	30	0	11	0	1	0	2	286	1,197
Count Total		4	30	807	310	0	91	1,005	12	0	210	4	88	0	14	5	20	2,600	
Peak Hr	All	1	13	445	157	0	44	606	6	0	111	2	43	0	7	2	13	1,450	
	HV	0	0	14	3	0	1	13	1	0	8	0	2	0	2	0	0	44	
	HV%	0%	0%	3%	2%	-	2%	2%	17%	-	7%	0%	5%	-	29%	0%	0%	3%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	5	2	1	0	8	0	0	0	0	0	0	0	0	0	0
7:15 AM	4	10	2	0	16	0	0	0	0	0	0	0	0	0	0
7:30 AM	3	3	4	0	10	0	0	0	0	0	0	0	0	0	0
7:45 AM	6	0	4	0	10	0	0	0	0	0	0	0	0	0	0
8:00 AM	4	2	0	2	8	0	0	0	0	0	0	0	0	0	0
8:15 AM	6	7	0	1	14	0	0	0	0	0	0	0	0	0	0
8:30 AM	1	6	0	0	7	0	0	0	0	0	0	0	0	0	0
8:45 AM	4	6	1	1	12	0	0	0	0	0	0	0	0	0	0
Count Total	33	36	12	4	85	0	0	0	0	0	0	0	0	0	0
Peak Hour	17	15	10	2	44	0	0	0	0	0	0	0	0	0	0

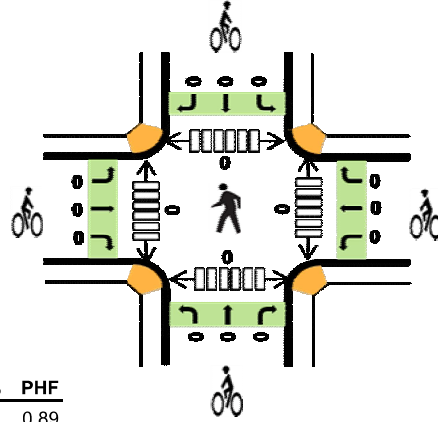
Count Summaries - Heavy Vehicles																			
Interval Start	Palmer Park Blvd				Palmer Park Blvd				Palmer Park Blvd Access				Palmer Park Blvd Access				15-min Total	Rolling Hour Total	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	4	1	0	0	1	1	0	1	0	0	0	0	0	0	0	8	0
7:15 AM	0	0	2	2	0	0	9	1	0	1	0	1	0	0	0	0	0	16	0
7:30 AM	0	0	3	0	0	1	2	0	0	3	0	1	0	0	0	0	0	10	0
7:45 AM	0	0	5	1	0	0	0	0	0	4	0	0	0	0	0	0	0	10	44
8:00 AM	0	0	4	0	0	0	2	0	0	0	0	0	0	0	2	0	0	8	44
8:15 AM	0	1	5	0	0	0	7	0	0	0	0	0	0	0	0	0	1	14	42
8:30 AM	0	0	1	0	0	1	5	0	0	0	0	0	0	0	0	0	0	7	39
8:45 AM	0	1	3	0	0	1	5	0	0	1	0	0	0	0	0	0	1	12	41
Count Total	0	2	27	4	0	3	31	2	0	10	0	2	0	2	0	2	0	85	
Pk Hr Heavy	0	0	14	3	0	1	13	1	0	8	0	2	0	2	0	0	0	44	

Count Summaries - Bikes																			
Interval Start	Palmer Park Blvd				Palmer Park Blvd				Palmer Park Blvd Access				Palmer Park Blvd Access				15-min Total	Rolling Hour Total	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	0	0	0	0	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	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Access Palmer Park Blvd



Date: 1/9/2025
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM



	HV%	PHF
EB	1%	0.89
WB	1%	0.93
NB	0%	0.93
SB	1%	0.79
TOTAL	1%	0.92

Peak Hour Count Summaries

Peak Hour Interval Start	Palmer Park Blvd				Palmer Park Blvd				Palmer Park Blvd Access				Palmer Park Blvd Access				15-min Total	Rolling Hour Total	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:30 PM	1	9	139	38	0	7	95	2	0	47	0	20	0	5	1	10	374	0	
4:45 PM	0	14	144	41	0	14	81	6	0	41	1	17	0	2	0	13	374	0	
5:00 PM	0	14	137	49	0	11	96	10	0	43	1	14	0	5	2	16	398	0	
5:15 PM	2	11	170	45	0	15	91	6	0	45	0	23	0	3	2	14	427	1,573	
Peak Hr	All	3	48	590	173	0	47	363	24	0	176	2	74	0	15	5	53	1,573	
	HV	0	1	11	0	0	0	4	0	0	0	0	0	0	0	0	1	17	
	HV%	0%	2%	2%	0%	-	0%	1%	0%	-	0%	0%	0%	-	0%	0%	2%	1%	

Note: For complete count summary (all intervals), see following pages.

** Heavy Vehicle Classifications include FHWA Classes 4-13.

** Count Summaries include heavy vehicles, but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:30 PM	3	0	0	1	4	0	0	0	0	0	0	0	0	0	0
4:45 PM	4	2	0	0	6	0	0	0	0	0	0	0	0	0	0
5:00 PM	4	1	0	0	5	0	0	0	0	0	0	0	0	0	0
5:15 PM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0
Peak Hour	12	4	0	1	17	0	0	0	0	0	0	0	0	0	0

Count Summaries - All Vehicles																			
Interval Start		Palmer Park Blvd				Palmer Park Blvd				Palmer Park Blvd Access				Palmer Park Blvd Access				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	16	162	44	0	4	95	1	0	36	0	15	0	7	0	16	396	0
4:15 PM		2	18	170	56	0	9	97	1	0	25	1	15	0	4	3	9	410	0
4:30 PM		1	9	139	38	0	7	95	2	0	47	0	20	0	5	1	10	374	0
4:45 PM		0	14	144	41	0	14	81	6	0	41	1	17	0	2	0	13	374	1,554
5:00 PM		0	14	137	49	0	11	96	10	0	43	1	14	0	5	2	16	398	1,556
5:15 PM		2	11	170	45	0	15	91	6	0	45	0	23	0	3	2	14	427	1,573
5:30 PM		1	15	126	39	0	11	77	1	0	39	0	20	0	2	0	6	337	1,536
5:45 PM		0	14	98	43	0	3	64	0	0	33	1	10	0	6	0	11	283	1,445
Count Total		6	111	1,146	355	0	74	696	27	0	309	4	134	0	34	8	95	2,999	
Peak Hr	All	3	48	590	173	0	47	363	24	0	176	2	74	0	15	5	53	1,573	
	HV	0	1	11	0	0	0	4	0	0	0	0	0	0	0	0	1	17	
	HV%	0%	2%	2%	0%	-	0%	1%	0%	-	0%	0%	0%	-	0%	0%	2%	1%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	5	4	0	0	9	0	0	0	0	0	0	0	0	0	0
4:15 PM	5	3	0	1	9	0	0	0	0	0	0	0	0	0	0
4:30 PM	3	0	0	1	4	0	0	0	0	0	0	0	0	0	0
4:45 PM	4	2	0	0	6	0	0	0	0	0	0	0	0	0	0
5:00 PM	4	1	0	0	5	0	0	0	0	0	0	0	0	0	0
5:15 PM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0
5:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:45 PM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0
Count Total	24	12	0	2	38	0	0	0	0	0	0	0	0	0	0
Peak Hour	12	4	0	1	17	0	0	0	0	0	0	0	0	0	0

Count Summaries - Heavy Vehicles																			
Interval Start	Palmer Park Blvd				Palmer Park Blvd				Palmer Park Blvd Access				Palmer Park Blvd Access				15-min Total	Rolling Hour Total	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	0	5	0	0	0	4	0	0	0	0	0	0	0	0	0	0	9	0
4:15 PM	0	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	1	9	0
4:30 PM	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0
4:45 PM	0	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6	28
5:00 PM	0	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5	24
5:15 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	17
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	14
5:45 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	10
Count Total	0	1	23	0	0	0	12	0	0	0	0	0	0	0	0	0	2	38	
Pk Hr Heavy	0	1	11	0	0	0	4	0	0	0	0	0	0	0	0	0	1	17	

Count Summaries - Bikes																			
Interval Start	Palmer Park Blvd				Palmer Park Blvd				Palmer Park Blvd Access				Palmer Park Blvd Access				15-min Total	Rolling Hour Total	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	0	0	0	0	0	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	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	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	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	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	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

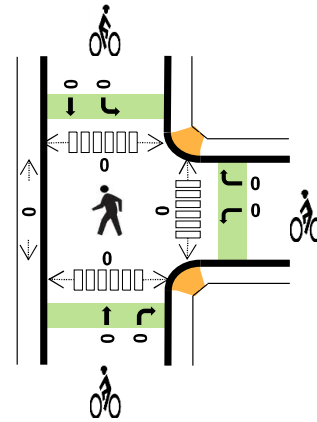
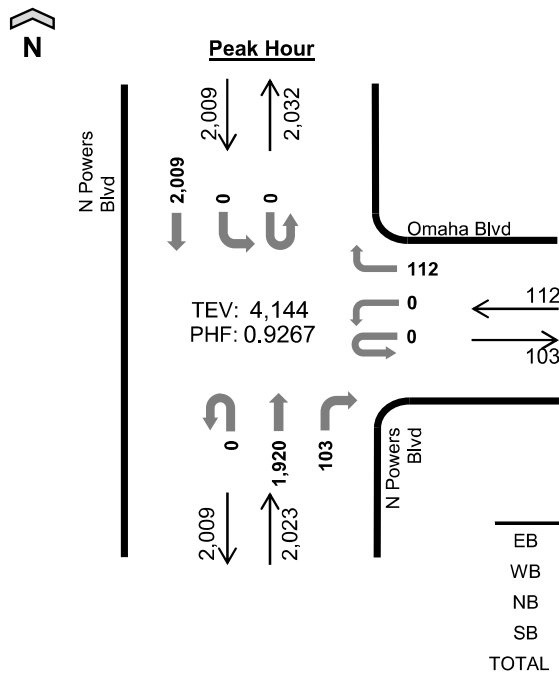
Palmer Park East Access

Count Date: Thursday, June 26, 2025
Peak Hour: 7:00 AM to 8:00 AM
 4:15 PM to 5:15 PM

Movement	AM	PM
EBR	4	15
WBL	27	18
NBL	8	9
NBR	22	22



Date: 1/9/2025
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM



Peak Hour Count Summaries

Peak Hour Interval Start		n/a				Omaha Blvd				N Powers Blvd				N Powers Blvd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	0	0	23	0	0	422	20	0	0	492	0	957	0
7:15 AM		0	0	0	0	0	0	0	30	0	0	454	18	0	0	533	0	1,035	0
7:30 AM		0	0	0	0	0	0	0	27	0	0	549	34	0	0	424	0	1,034	0
7:45 AM		0	0	0	0	0	0	0	32	0	0	495	31	0	0	560	0	1,118	4,144
Pk Hr	All	0	0	0	0	0	0	0	112	0	0	1,920	103	0	0	2,009	0	4,144	
	HV	0	0	0	0	0	0	0	8	0	0	74	5	0	0	40	0	127	
	HV%	-	-	-	-	-	-	-	7%	-	-	4%	5%	-	-	2%	-	3%	

Note: For complete count summary (all intervals), see following pages.

**** Heavy Vehicle Classifications include FHWA Classes 4-13.**

**** Count Summaries include heavy vehicles, but exclude bicycles in overall count.**

[illegible]

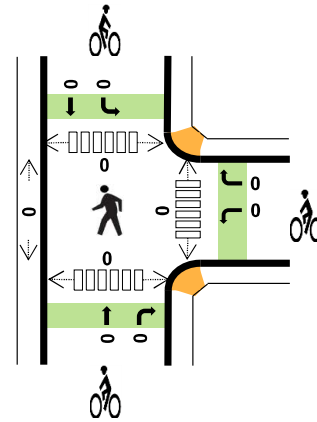
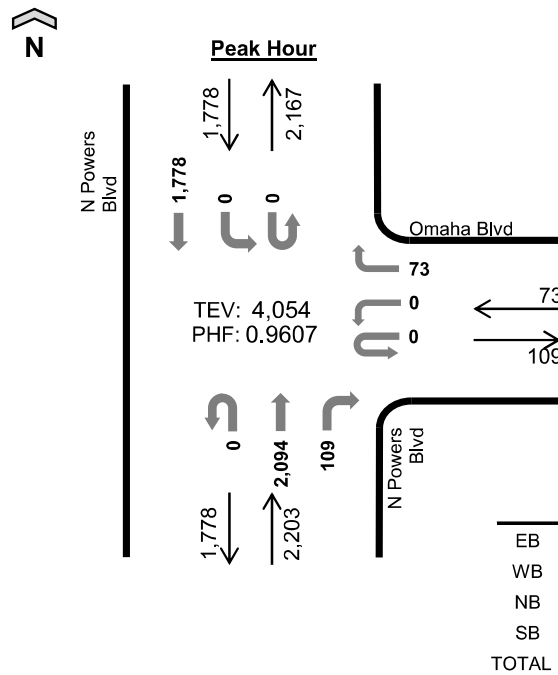
Count Summaries - All Vehicles																			
Interval Start		n/a				Omaha Blvd				N Powers Blvd				N Powers Blvd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	0	0	23	0	0	422	20	0	0	492	0	957	0
7:15 AM		0	0	0	0	0	0	0	30	0	0	454	18	0	0	533	0	1,035	0
7:30 AM		0	0	0	0	0	0	0	27	0	0	549	34	0	0	424	0	1,034	0
7:45 AM		0	0	0	0	0	0	0	32	0	0	495	31	0	0	560	0	1,118	4,144
8:00 AM		0	0	0	0	0	0	0	24	0	0	391	23	0	0	502	0	940	4,127
8:15 AM		0	0	0	0	0	0	0	34	0	0	446	19	0	0	399	0	898	3,990
8:30 AM		0	0	0	0	0	0	0	29	0	0	381	33	0	0	465	0	908	3,864
8:45 AM		0	0	0	0	0	0	0	31	0	0	378	33	0	0	377	0	819	3,565
Count Total		0	0	0	0	0	0	0	230	0	0	3,516	211	0	0	3,752	0	7,709	
Pk Hr	All	0	0	0	0	0	0	0	112	0	0	1,920	103	0	0	2,009	0	4,144	
	HV	0	0	0	0	0	0	0	8	0	0	74	5	0	0	40	0	127	
	HV%	-	-	-	-	-	-	-	7%	-	-	4%	5%	-	-	2%	-	3%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	2	10	5	17	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	2	24	14	40	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	3	23	9	35	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	22	12	35	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	4	16	12	32	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	2	18	9	29	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	15	22	38	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	17	23	40	0	0	0	0	0	0	0	0	0	0
Count Total	0	15	145	106	266	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	8	79	40	127	0	0	0	0	0	0	0	0	0	0

Count Summaries - Heavy Vehicles																		
Interval Start	n/a				Omaha Blvd				N Powers Blvd				N Powers Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	2	0	0	9	1	0	0	5	0	17	0
7:15 AM	0	0	0	0	0	0	0	2	0	0	22	2	0	0	14	0	40	0
7:30 AM	0	0	0	0	0	0	0	3	0	0	21	2	0	0	9	0	35	0
7:45 AM	0	0	0	0	0	0	0	1	0	0	22	0	0	0	12	0	35	127
8:00 AM	0	0	0	0	0	0	0	4	0	0	12	4	0	0	12	0	32	142
8:15 AM	0	0	0	0	0	0	0	2	0	0	18	0	0	0	9	0	29	131
8:30 AM	0	0	0	0	0	0	0	1	0	0	14	1	0	0	22	0	38	134
8:45 AM	0	0	0	0	0	0	0	0	0	0	14	3	0	0	23	0	40	139
Count Total	0	0	0	0	0	0	0	15	0	0	132	13	0	0	106	0	266	
Pk Hr Heavy	0	0	0	0	0	0	0	8	0	0	74	5	0	0	40	0	127	
Count Summaries - Bikes																		
Interval Start	n/a				Omaha Blvd				N Powers Blvd				N Powers Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	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	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	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	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



Date: 1/9/2025
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



Peak Hour Count Summaries

Peak Hour Interval Start		n/a				Omaha Blvd				N Powers Blvd				N Powers Blvd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	0	0	11	0	0	552	27	0	0	436	0	1,026	0
4:15 PM		0	0	0	0	0	0	0	21	0	0	516	31	0	0	487	0	1,055	0
4:30 PM		0	0	0	0	0	0	0	20	0	0	542	27	0	0	454	0	1,043	0
4:45 PM		0	0	0	0	0	0	0	21	0	0	484	24	0	0	401	0	930	4,054
Pk Hr	All	0	0	0	0	0	0	0	73	0	0	2,094	109	0	0	1,778	0	4,054	
	HV	0	0	0	0	0	0	0	0	0	0	18	3	0	0	33	0	54	
	HV%	-	-	-	-	-	-	-	0%	-	-	1%	3%	-	-	2%	-	1%	

Note: For complete count summary (all intervals), see following pages.

*** Heavy Vehicle Classifications include FHWA Classes 4-13.*

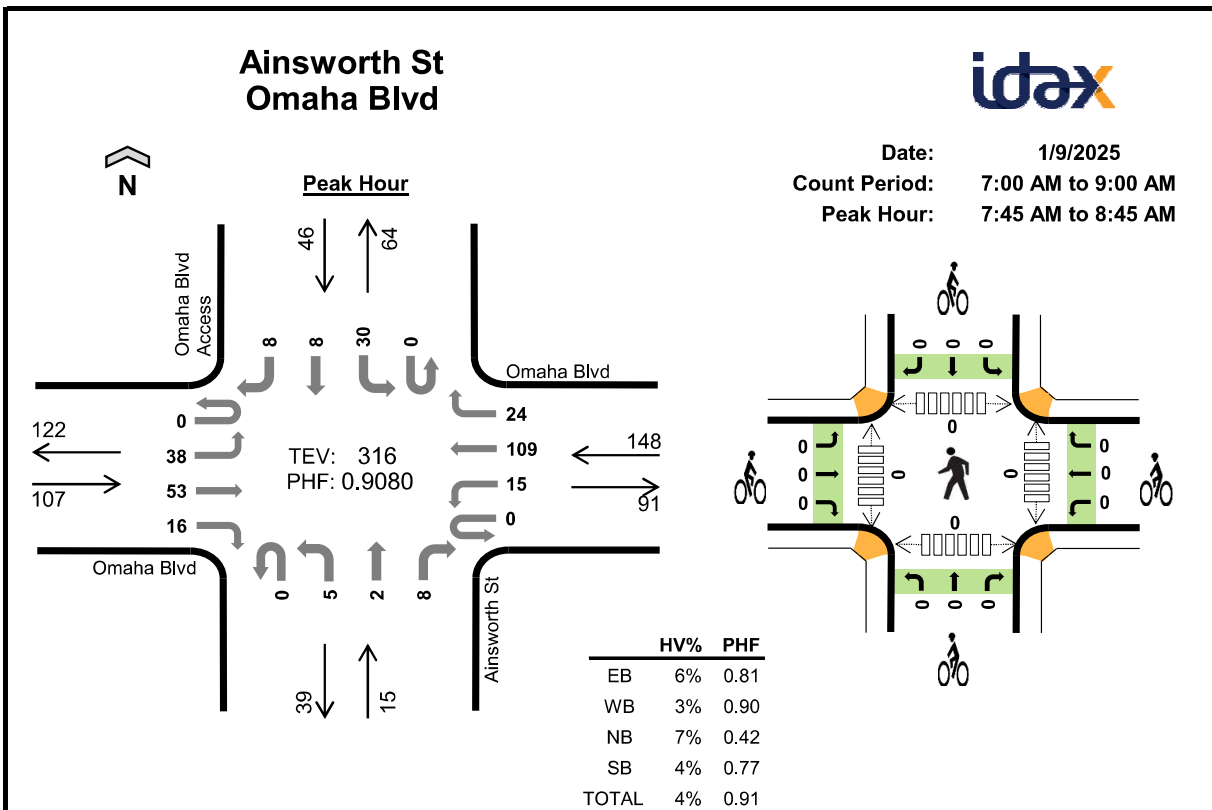
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

[illegible]

Count Summaries - All Vehicles																			
Interval Start		n/a				Omaha Blvd				N Powers Blvd				N Powers Blvd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	0	0	11	0	0	552	27	0	0	436	0	1,026	0
4:15 PM		0	0	0	0	0	0	0	21	0	0	516	31	0	0	487	0	1,055	0
4:30 PM		0	0	0	0	0	0	0	20	0	0	542	27	0	0	454	0	1,043	0
4:45 PM		0	0	0	0	0	0	0	21	0	0	484	24	0	0	401	0	930	4,054
5:00 PM		0	0	0	0	0	0	0	31	0	0	468	19	0	0	331	0	849	3,877
5:15 PM		0	0	0	0	0	0	0	24	0	0	425	22	0	0	375	0	846	3,668
5:30 PM		0	0	0	0	0	0	0	19	0	0	318	14	0	0	343	0	694	3,319
5:45 PM		0	0	0	0	0	0	0	14	0	0	337	23	0	0	354	0	728	3,117
Count Total		0	0	0	0	0	0	0	161	0	0	3,642	187	0	0	3,181	0	7,171	
P k Hr	All	0	0	0	0	0	0	0	73	0	0	2,094	109	0	0	1,778	0	4,054	
	HV	0	0	0	0	0	0	0	0	0	0	18	3	0	0	33	0	54	
	HV%	-	-	-	-	-	-	-	0%	-	-	1%	3%	-	-	2%	-	1%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	0	0	10	11	21	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	4	6	10	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	5	10	15	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	2	6	8	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	8	6	14	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	4	4	8	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	35	44	79	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	21	33	54	0	0	0	0	0	0	0	0	0	0

Count Summaries - Heavy Vehicles																		
Interval Start	n/a				Omaha Blvd				N Powers Blvd				N Powers Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	8	2	0	0	11	0	21	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	6	0	10	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	4	1	0	0	10	0	15	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	6	0	8	54
5:00 PM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	6	0	14	47
5:15 PM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	0	8	45
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	32
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	25
Count Total	0	0	0	0	0	0	0	0	0	0	31	4	0	0	44	0	79	
Pk Hr Heavy	0	0	0	0	0	0	0	0	0	0	18	3	0	0	33	0	54	
Count Summaries - Bikes																		
Interval Start	n/a				Omaha Blvd				N Powers Blvd				N Powers Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	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	0	0	0	0	0
4:30 PM	0	0	0	0	0	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	0	0	0	0	0
5:00 PM	0	0	0	0	0	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	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



Peak Hour Count Summaries

Peak Hour Interval Start	Omaha Blvd				Omaha Blvd				Ainsworth St				Omaha Blvd Access				15-min Total	Rolling Hour Total	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:45 AM	0	8	19	3	0	4	29	6	0	2	0	1	0	9	3	3	87	0	
8:00 AM	0	7	12	5	0	4	27	10	0	0	0	1	0	11	2	0	79	0	
8:15 AM	0	10	7	3	0	3	31	3	0	0	1	1	0	7	2	1	69	0	
8:30 AM	0	13	15	5	0	4	22	5	0	3	1	5	0	3	1	4	81	316	
Pk Hr	All	0	38	53	16	0	15	109	24	0	5	2	8	0	30	8	8	316	
	HV	0	0	4	2	0	0	5	0	0	0	0	1	0	2	0	0	14	
	HV%	-	0%	8%	13%	-	0%	5%	0%	-	0%	0%	13%	-	7%	0%	0%	4%	

Note: For complete count summary (all intervals), see following pages.

**** Heavy Vehicle Classifications include FHWA Classes 4-13.**

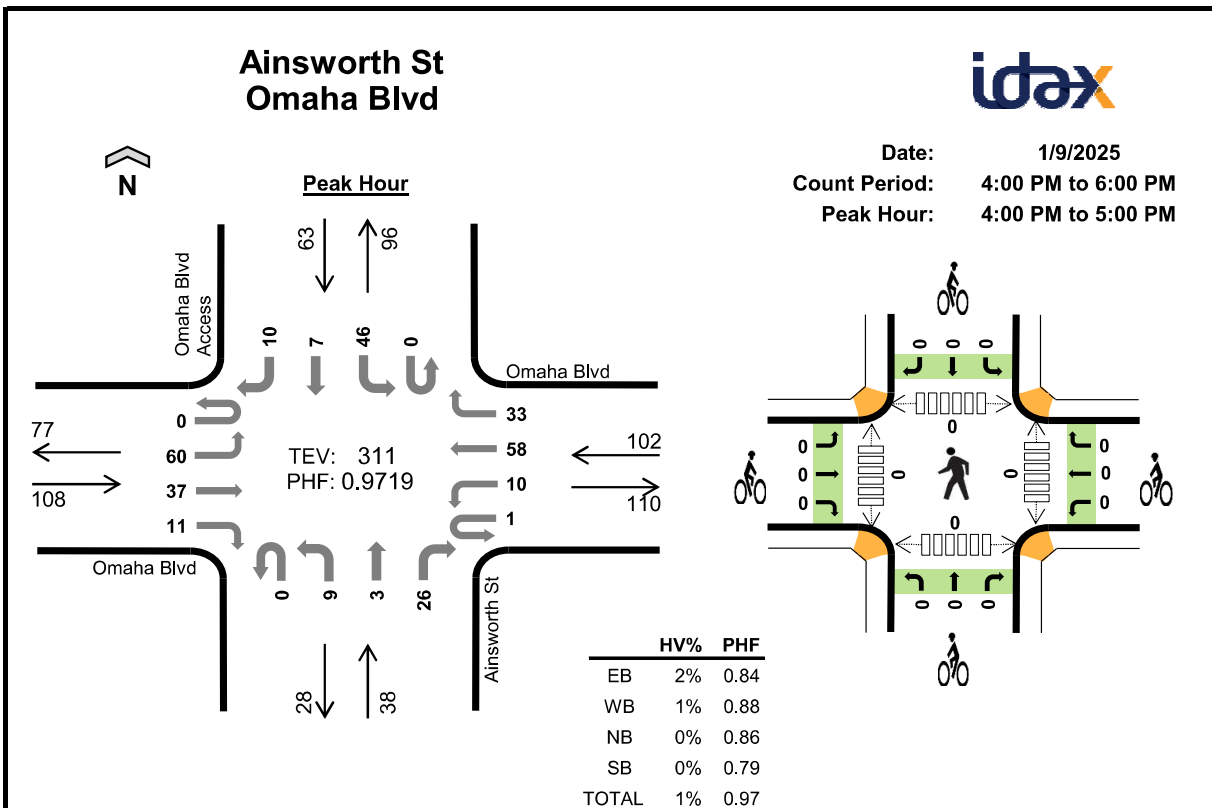
**** Count Summaries include heavy vehicles, but exclude bicycles in overall count.**

[illegible]

Count Summaries - All Vehicles																			
Interval Start		Omaha Blvd				Omaha Blvd				Ainsworth St				Omaha Blvd Access				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	9	12	0	0	0	22	2	0	0	0	0	0	8	0	1	54	0
7:15 AM		0	4	15	1	0	0	29	5	0	0	0	0	0	6	1	2	63	0
7:30 AM		0	6	22	3	0	0	24	5	0	0	1	0	0	1	0	1	63	0
7:45 AM		0	8	19	3	0	4	29	6	0	2	0	1	0	9	3	3	87	267
8:00 AM		0	7	12	5	0	4	27	10	0	0	0	1	0	11	2	0	79	292
8:15 AM		0	10	7	3	0	3	31	3	0	0	1	1	0	7	2	1	69	298
8:30 AM		0	13	15	5	0	4	22	5	0	3	1	5	0	3	1	4	81	316
8:45 AM		0	11	15	5	0	4	29	6	0	2	0	6	0	7	1	0	86	315
Count Total		0	68	117	25	0	19	213	42	0	7	3	14	0	52	10	12	582	
Pk Hr	All	0	38	53	16	0	15	109	24	0	5	2	8	0	30	8	8	316	
	HV	0	0	4	2	0	0	5	0	0	0	0	1	0	2	0	0	14	
	HV%	-	0%	8%	13%	-	0%	5%	0%	-	0%	0%	13%	-	7%	0%	0%	4%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0
7:15 AM	1	5	0	0	6	0	0	0	0	0	0	0	0	0	0
7:30 AM	2	2	0	1	5	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
8:00 AM	4	4	0	2	10	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	2	0	1	0	3	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	1	1	3	0	0	0	0	0	0	0	0	0	0
Count Total	10	15	2	4	31	0	0	0	0	0	0	0	0	0	0
Peak Hour	6	5	1	2	14	0	0	0	0	0	0	0	0	0	0

Count Summaries - Heavy Vehicles																		
Interval Start	Omaha Blvd				Omaha Blvd				Ainsworth St				Omaha Blvd Access				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	0
7:15 AM	0	1	0	0	0	0	3	2	0	0	0	0	0	0	0	0	6	0
7:30 AM	0	0	2	0	0	0	1	1	0	0	0	0	0	0	0	1	5	0
7:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	15
8:00 AM	0	0	2	2	0	0	4	0	0	0	0	0	0	2	0	0	10	22
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
8:30 AM	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	3	14
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	3	16
Count Total	0	1	7	2	0	1	11	3	0	0	0	2	0	3	0	1	31	
Pk Hr Heavy	0	0	4	2	0	0	5	0	0	0	0	1	0	2	0	0	14	
Count Summaries - Bikes																		
Interval Start	Omaha Blvd				Omaha Blvd				Ainsworth St				Omaha Blvd Access				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	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	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	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	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



Peak Hour Count Summaries

Peak Hour Interval Start		Omaha Blvd				Omaha Blvd				Ainsworth St				Omaha Blvd Access				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
	4:00 PM	0	14	8	3	0	6	12	11	0	1	1	7	0	10	0	2	75	0
	4:15 PM	0	11	16	5	0	1	17	7	0	3	0	6	0	12	1	0	79	0
	4:30 PM	0	20	6	2	0	2	13	10	0	3	1	5	0	10	3	5	80	0
	4:45 PM	0	15	7	1	1	1	16	5	0	2	1	8	0	14	3	3	77	311
Pk Hr	All	0	60	37	11	1	10	58	33	0	9	3	26	0	46	7	10	311	
	HV	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	
	HV%	-	0%	5%	0%	0%	0%	2%	0%	-	0%	0%	0%	-	0%	0%	0%	1%	

Note: For complete count summary (all intervals), see following pages.

**** Heavy Vehicle Classifications include FHWA Classes 4-13.**

**** Count Summaries include heavy vehicles, but exclude bicycles in overall count.**

[illegible]

Count Summaries - All Vehicles																			
Interval Start		Omaha Blvd				Omaha Blvd				Ainsworth St				Omaha Blvd Access				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	14	8	3	0	6	12	11	0	1	1	7	0	10	0	2	75	0
4:15 PM		0	11	16	5	0	1	17	7	0	3	0	6	0	12	1	0	79	0
4:30 PM		0	20	6	2	0	2	13	10	0	3	1	5	0	10	3	5	80	0
4:45 PM		0	15	7	1	1	1	16	5	0	2	1	8	0	14	3	3	77	311
5:00 PM		0	12	4	3	0	2	20	9	0	1	1	5	1	8	0	9	75	311
5:15 PM		0	18	4	0	0	0	17	5	0	4	2	0	0	12	1	3	66	298
5:30 PM		0	8	5	1	0	1	15	9	0	2	1	4	0	17	0	1	64	282
5:45 PM		0	19	6	1	0	0	11	6	0	0	1	2	0	9	1	3	59	264
Count Total		0	117	56	16	1	13	121	62	0	16	8	37	1	92	9	26	575	
PkHr	All	0	60	37	11	1	10	58	33	0	9	3	26	0	46	7	10	311	
	HV	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	
	HV%	-	0%	5%	0%	0%	0%	2%	0%	-	0%	0%	0%	-	0%	0%	0%	1%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	1	1	0	0	2	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	0	0
4:30 PM	1	0	0	0	1	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	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	3	1	0	0	4	0	0	0	0	0	0	0	0	0	0
Peak Hour	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0

Count Summaries - Heavy Vehicles																		
Interval Start	Omaha Blvd				Omaha Blvd				Ainsworth St				Omaha Blvd Access				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	4	
Pk Hr Heavy	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	
Count Summaries - Bikes																		
Interval Start	Omaha Blvd				Omaha Blvd				Ainsworth St				Omaha Blvd Access				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	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	0	0	0	0	0
4:30 PM	0	0	0	0	0	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	0	0	0	0	0
5:00 PM	0	0	0	0	0	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	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Appendix C: Future Traffic Projections

ROUTE	REFPT	ENDREFPT	LENGTH	UPDATEYR	AA DT	VR20FACTOR	Growth Rate	DHV	DD	LOCATION
021B	141.738	142.734	0.996	2024	64000	1.25	1.12%	9	54	ON POWERS BD S/O SH 24 COLO SPGS BYPASS FOUNTAIN BD
021B	142.734	142.983	0.254	2024	59000	1.25	1.12%	9	56	ON POWERS BLVD N/O SH 24 PLATTE AVE COLO SPGS
021B	142.983	145.495	2.515	2024	68000	1.25	1.12%	8	52	ON POWERS BLVD N/O GALLEY RD COLO SPGS
						Average	1.12%			

Appendix D: Trip Generation Worksheet

Palmer Park & Powers VASA Daily Trip Generation Calculations

TRIP GENERATION CHARACTERISTICS				DIRECTIONAL DISTRIBUTION	NEW EXTERNAL VEHICLE TRIPS		
Land Use + Code	Source	Scale	ITE Unit	Equation/Rate	Entering %	Exiting %	Net New In Out Total
1 (492) Health/Fitness Club	ITE 12th Ed	68.2	KSF	T = 30.02(X)	50%	50%	1,024 1,024 2,048

Kmart Previous Land Use Daily Trip Generation Calculations

TRIP GENERATION CHARACTERISTICS				DIRECTIONAL DISTRIBUTION	NEW EXTERNAL VEHICLE TRIPS		
Land Use + Code	Source	Scale	ITE Unit	Equation/Rate	Entering %	Exiting %	Net New In Out Total
1 (875) Department Store	ITE 12th Ed	68.2	KSF	T = 22.88(X)	50%	50%	781 781 1,562

Palmer Park & Powers VASA AM Peak Hour Trip Generation Calculations

TRIP GENERATION CHARACTERISTICS				DIRECTIONAL DISTRIBUTION	NEW EXTERNAL VEHICLE TRIPS		
Land Use + Code	Source	Scale	ITE Unit	Equation/Rate	Entering %	Exiting %	Net New In Out Total
1 (492) Health/Fitness Club	ITE 12th Ed	68.2	KSF	$\ln(T) = 0.68 \ln(X) + 1.70$	51%	49%	49 48 97

Kmart Previous Land Use AM Peak Hour Trip Generation Calculations

TRIP GENERATION CHARACTERISTICS				DIRECTIONAL DISTRIBUTION	NEW EXTERNAL VEHICLE TRIPS		
Land Use + Code	Source	Scale	ITE Unit	Equation/Rate	Entering %	Exiting %	Net New In Out Total
1 (875) Department Store	ITE 12th Ed	68.2	KSF	T = 0.58(X)	64%	36%	26 14 40

Palmer Park & Powers VASA PM Peak Hour Trip Generation Calculations

TRIP GENERATION CHARACTERISTICS				DIRECTIONAL DISTRIBUTION	NEW EXTERNAL VEHICLE TRIPS		
Land Use + Code	Source	Scale	ITE Unit	Equation/Rate	Entering %	Exiting %	Net New In Out Total
1 (492) Health/Fitness Club	ITE 12th Ed	68.2	KSF	$\ln(T) = 0.79 \ln(X) + 2.02$	57%	43%	121 91 212

Kmart Previous Land Use PM Peak Hour Trip Generation Calculations

TRIP GENERATION CHARACTERISTICS				DIRECTIONAL DISTRIBUTION	NEW EXTERNAL VEHICLE TRIPS		
Land Use + Code	Source	Scale	ITE Unit	Equation/Rate	Entering %	Exiting %	Net New In Out Total
1 (875) Department Store	ITE 12th Ed	68.2	KSF	T = 1.95(X)	50%	50%	67 66 133

Appendix E: Intersection Analysis Worksheets

Timings 1: Powers Boulevard & Palmer Park Boulevard

2025 Existing AM
05/20/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	184	202	60	183	336	165	125	1664	202	175	1818	226
Future Volume (vph)	184	202	60	183	336	165	125	1664	202	175	1818	226
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			2			Free
Detector Phase	7	4		3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	20.0	20.0	4.0	20.0	
Minimum Split (s)	9.5	40.5		10.5	40.5		9.5	41.5	41.5	11.5	41.5	
Total Split (s)	19.0	20.0		20.0	21.0		17.0	82.0	82.0	24.0	89.0	
Total Split (%)	13.0%	13.7%		13.7%	14.4%		11.6%	56.2%	56.2%	16.4%	61.0%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	5.5	5.5	5.5	5.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	6.5		5.0	6.5		5.0	7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max	C-Max	None	C-Max	

Intersection Summary

Cycle Length: 146

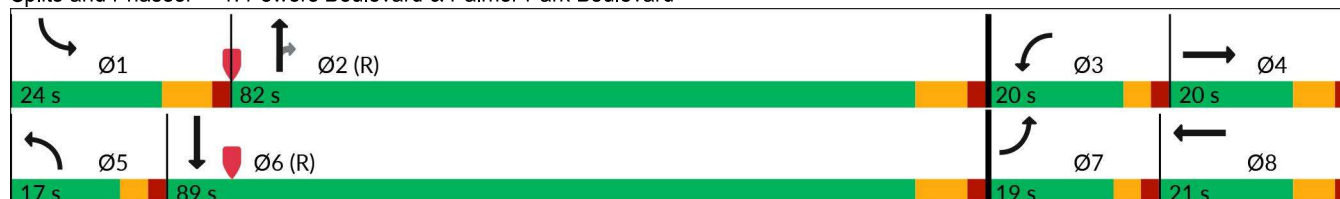
Actuated Cycle Length: 146

Offset: 126 (86%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Splits and Phases: 1: Powers Boulevard & Palmer Park Boulevard



HCM 7th Signalized Intersection Summary

1: Powers Boulevard & Palmer Park Boulevard

2025 Existing AM
05/20/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	202	60	183	336	165	125	1664	202	175	1818	226
Future Volume (veh/h)	184	202	60	183	336	165	125	1664	202	175	1818	226
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1841	1841	1841	1870	1870	1870
Adj Flow Rate, veh/h	200	220	0	199	365	0	136	1809	0	190	1976	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	4	4	4	2	2	2
Cap, veh/h	249	355		247	353		183	2901		241	3117	
Arrive On Green	0.07	0.10	0.00	0.12	0.17	0.00	0.05	0.58	0.00	0.07	0.61	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3401	5025	1560	3456	5106	1585
Grp Volume(v), veh/h	200	220	0	199	365	0	136	1809	0	190	1976	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1700	1675	1560	1728	1702	1585
Q Serve(g_s), s	8.3	8.7	0.0	8.2	14.5	0.0	5.8	34.7	0.0	7.9	35.9	0.0
Cycle Q Clear(g_c), s	8.3	8.7	0.0	8.2	14.5	0.0	5.8	34.7	0.0	7.9	35.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	249	355		247	353		183	2901		241	3117	
V/C Ratio(X)	0.80	0.62		0.80	1.03		0.74	0.62		0.79	0.63	
Avail Cap(c_a), veh/h	331	355		355	353		280	2901		391	3117	
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.97	0.97	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	66.7	63.0	0.0	63.3	60.9	0.0	68.1	20.4	0.0	66.8	18.1	0.0
Incr Delay (d2), s/veh	10.0	3.3	0.0	8.3	56.3	0.0	5.9	1.0	0.0	5.7	1.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	4.1	0.0	3.7	8.8	0.0	2.6	12.7	0.0	3.6	13.0	0.0
Unsig. Movement Delay, s/veh	0.00			0.00			0.00			0.00		
LnGrp Delay(d), s/veh	76.7	66.3	0.0	71.6	117.2	0.0	74.0	21.4	0.0	72.5	19.1	0.0
LnGrp LOS	E	E	A	E	F	A	E	C		E	B	A
Approach Vol, veh/h	485			743			1945			2412		
Approach Delay, s/veh	61.7			76.7			25.1			21.3		
Approach LOS	E			E			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.7	91.8	15.4	21.1	12.9	96.6	15.5	21.0				
Change Period (Y+Rc), s	7.5	7.5	5.0	6.5	5.0	7.5	5.0	6.5				
Max Green Setting (Gmax), s	16.5	74.5	15.0	13.5	12.0	81.5	14.0	14.5				
Max Q Clear Time (g_c+I1), s	9.9	36.7	10.2	10.7	7.8	37.9	10.3	16.5				
Green Ext Time (p_c), s	0.3	16.7	0.3	0.3	0.1	20.4	0.2	0.0				

Intersection Summary

HCM 7th Control Delay, s/veh 33.5
HCM 7th LOS C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [EBR, WBR, SBR] is included in calculations of the approach delay and intersection delay.

HCM 7th Signalized Intersection Summary
1: Powers Boulevard & Palmer Park Boulevard

2025 Existing AM
05/20/2026

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Timings

2025 Existing PM

1: Powers Boulevard & Palmer Park Boulevard

05/20/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	291	403	163	145	253	99	150	1804	190	201	1468	404
Future Volume (vph)	291	403	163	145	253	99	150	1804	190	201	1468	404
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			2			Free
Detector Phase	7	4		3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	20.0	20.0	4.0	20.0	
Minimum Split (s)	9.5	40.5		10.5	40.5		9.5	41.5	41.5	11.5	41.5	
Total Split (s)	25.0	27.0		18.0	20.0		18.0	81.0	81.0	20.0	83.0	
Total Split (%)	17.1%	18.5%		12.3%	13.7%		12.3%	55.5%	55.5%	13.7%	56.8%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	5.5	5.5	5.5	5.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	6.5		5.0	6.5		5.0	7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max	C-Max	None	C-Max	

Intersection Summary

Cycle Length: 146

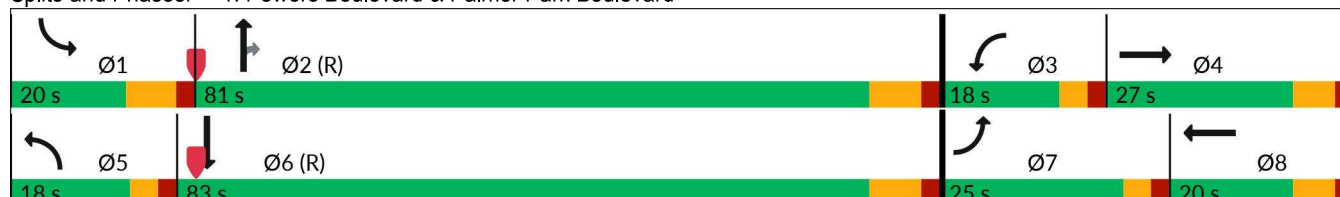
Actuated Cycle Length: 146

Offset: 74 (51%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

Splits and Phases: 1: Powers Boulevard & Palmer Park Boulevard



HCM 7th Signalized Intersection Summary

1: Powers Boulevard & Palmer Park Boulevard

2025 Existing PM
05/20/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	291	403	163	145	253	99	150	1804	190	201	1468	404
Future Volume (veh/h)	291	403	163	145	253	99	150	1804	190	201	1468	404
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	300	415	0	149	261	0	155	1860	0	207	1513	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	354	471		199	311		204	2833		254	2995	
Arrive On Green	0.10	0.13	0.00	0.02	0.03	0.00	0.06	0.55	0.00	0.07	0.59	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	300	415	0	149	261	0	155	1860	0	207	1513	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	12.5	16.7	0.0	6.3	10.7	0.0	6.5	37.2	0.0	8.6	25.4	0.0
Cycle Q Clear(g_c), s	12.5	16.7	0.0	6.3	10.7	0.0	6.5	37.2	0.0	8.6	25.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	354	471		199	311		204	2833		254	2995	
V/C Ratio(X)	0.85	0.88		0.75	0.84		0.76	0.66		0.81	0.51	
Avail Cap(c_a), veh/h	473	499		308	329		308	2833		296	2995	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.97	0.97	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	64.4	62.2	0.0	70.6	69.9	0.0	67.7	22.8	0.0	66.7	17.7	0.0
Incr Delay (d2), s/veh	10.4	16.1	0.0	5.4	16.1	0.0	5.9	1.2	0.0	14.1	0.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	8.6	0.0	3.0	5.8	0.0	2.9	14.0	0.0	4.2	9.3	0.0
Unsig. Movement Delay, s/veh			0.00			0.00						0.00
LnGrp Delay(d), s/veh	74.8	78.3	0.0	75.9	85.9	0.0	73.6	24.0	0.0	80.8	18.3	0.0
LnGrp LOS	E	E	A	E	F	A	E	C		F	B	A
Approach Vol, veh/h	883				512		2015				2136	
Approach Delay, s/veh	62.2				65.9		27.8				20.8	
Approach LOS	E				E		C				C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.2	88.5	13.4	25.8	13.6	93.1	20.0	19.3				
Change Period (Y+Rc), s	7.5	7.5	5.0	6.5	5.0	7.5	5.0	6.5				
Max Green Setting (Gmax), s	12.5	73.5	13.0	20.5	13.0	75.5	20.0	13.5				
Max Q Clear Time (g_c+I1), s	10.6	39.2	8.3	18.7	8.5	27.4	14.5	12.7				
Green Ext Time (p_c), s	0.1	16.7	0.2	0.5	0.2	13.5	0.5	0.1				
Intersection Summary												
HCM 7th Control Delay, s/veh			34.1									
HCM 7th LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												
Unsignalized Delay for [EBR, WBR, SBR] is included in calculations of the approach delay and intersection delay.												

HCM 7th Signalized Intersection Summary
1: Powers Boulevard & Palmer Park Boulevard

2025 Existing PM
05/20/2026

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Timings 1: Powers Boulevard & Palmer Park Boulevard

2026 Background AM
05/20/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	186	204	61	185	340	167	126	1683	204	177	1838	229
Future Volume (vph)	186	204	61	185	340	167	126	1683	204	177	1838	229
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			2			Free
Detector Phase	7	4		3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	20.0	20.0	4.0	20.0	
Minimum Split (s)	9.5	40.5		10.5	40.5		9.5	41.5	41.5	11.5	41.5	
Total Split (s)	19.0	20.0		20.0	21.0		17.0	82.0	82.0	24.0	89.0	
Total Split (%)	13.0%	13.7%		13.7%	14.4%		11.6%	56.2%	56.2%	16.4%	61.0%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	5.5	5.5	5.5	5.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	6.5		5.0	6.5		5.0	7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max	C-Max	None	C-Max	

Intersection Summary

Cycle Length: 146

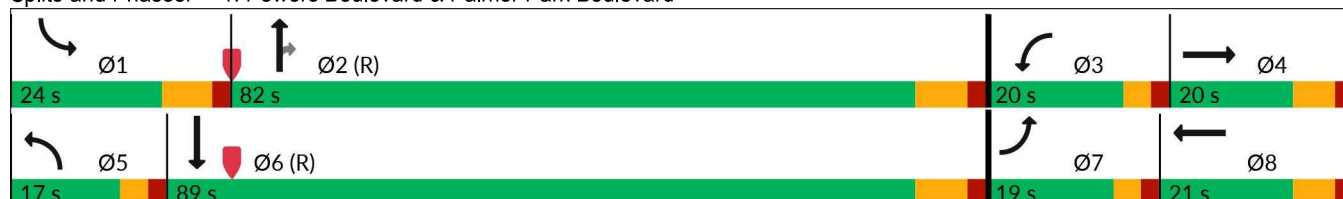
Actuated Cycle Length: 146

Offset: 126 (86%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Splits and Phases: 1: Powers Boulevard & Palmer Park Boulevard



HCM 7th Signalized Intersection Summary

1: Powers Boulevard & Palmer Park Boulevard

2026 Background AM
05/20/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	204	61	185	340	167	126	1683	204	177	1838	229
Future Volume (veh/h)	186	204	61	185	340	167	126	1683	204	177	1838	229
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1841	1841	1841	1870	1870	1870
Adj Flow Rate, veh/h	202	222	0	201	370	0	137	1829	0	192	1998	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	4	4	4	2	2	2
Cap, veh/h	251	355		249	353		184	2895		243	3112	
Arrive On Green	0.07	0.10	0.00	0.12	0.17	0.00	0.05	0.58	0.00	0.07	0.61	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3401	5025	1560	3456	5106	1585
Grp Volume(v), veh/h	202	222	0	201	370	0	137	1829	0	192	1998	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1700	1675	1560	1728	1702	1585
Q Serve(g_s), s	8.4	8.8	0.0	8.3	14.5	0.0	5.8	35.4	0.0	8.0	36.6	0.0
Cycle Q Clear(g_c), s	8.4	8.8	0.0	8.3	14.5	0.0	5.8	35.4	0.0	8.0	36.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	251	355		249	353		184	2895		243	3112	
V/C Ratio(X)	0.80	0.63		0.81	1.05		0.75	0.63		0.79	0.64	
Avail Cap(c_a), veh/h	331	355		355	353		280	2895		391	3112	
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.97	0.97	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	66.7	63.1	0.0	63.2	60.9	0.0	68.1	20.6	0.0	66.8	18.3	0.0
Incr Delay (d2), s/veh	10.2	3.4	0.0	8.5	60.4	0.0	5.9	1.1	0.0	5.7	1.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	4.1	0.0	3.8	9.0	0.0	2.6	12.9	0.0	3.6	13.2	0.0
Unsig. Movement Delay, s/veh	0.00			0.00			0.00			0.00		
LnGrp Delay(d), s/veh	76.9	66.5	0.0	71.7	121.3	0.0	73.9	21.7	0.0	72.5	19.3	0.0
LnGrp LOS	E	E	A	E	F	A	E	C		E	B	A
Approach Vol, veh/h	490			753			1966			2439		
Approach Delay, s/veh	61.8			78.7			25.3			21.5		
Approach LOS	E			E			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.8	91.6	15.5	21.1	12.9	96.5	15.6	21.0				
Change Period (Y+Rc), s	7.5	7.5	5.0	6.5	5.0	7.5	5.0	6.5				
Max Green Setting (Gmax), s	16.5	74.5	15.0	13.5	12.0	81.5	14.0	14.5				
Max Q Clear Time (g_c+I1), s	10.0	37.4	10.3	10.8	7.8	38.6	10.4	16.5				
Green Ext Time (p_c), s	0.3	16.9	0.3	0.3	0.1	20.6	0.2	0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	34.0											
HCM 7th LOS	C											
Notes												
User approved pedestrian interval to be less than phase max green.												
Unsignalized Delay for [EBR, WBR, SBR] is included in calculations of the approach delay and intersection delay.												

HCM 7th Signalized Intersection Summary
1: Powers Boulevard & Palmer Park Boulevard

2026 Background AM
05/20/2026

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Timings

2026 Background PM

1: Powers Boulevard & Palmer Park Boulevard

05/20/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	294	408	165	147	256	100	152	1824	192	203	1484	409
Future Volume (vph)	294	408	165	147	256	100	152	1824	192	203	1484	409
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			2			Free
Detector Phase	7	4		3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	20.0	20.0	4.0	20.0	
Minimum Split (s)	9.5	40.5		10.5	40.5		9.5	41.5	41.5	11.5	41.5	
Total Split (s)	25.0	27.0		18.0	20.0		18.0	81.0	81.0	20.0	83.0	
Total Split (%)	17.1%	18.5%		12.3%	13.7%		12.3%	55.5%	55.5%	13.7%	56.8%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	5.5	5.5	5.5	5.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	6.5		5.0	6.5		5.0	7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max	C-Max	None	C-Max	

Intersection Summary

Cycle Length: 146

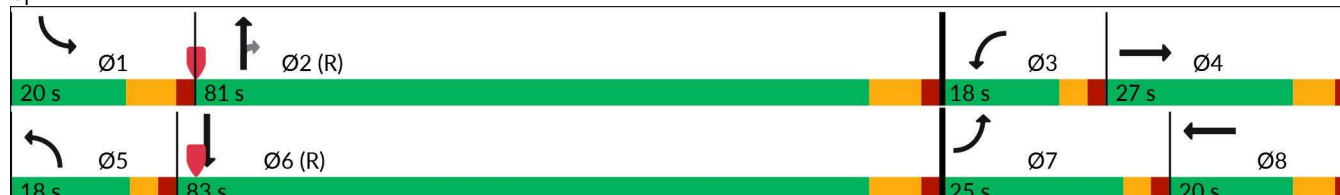
Actuated Cycle Length: 146

Offset: 74 (51%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

Splits and Phases: 1: Powers Boulevard & Palmer Park Boulevard



HCM 7th Signalized Intersection Summary

1: Powers Boulevard & Palmer Park Boulevard

2026 Background PM
05/20/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	294	408	165	147	256	100	152	1824	192	203	1484	409
Future Volume (veh/h)	294	408	165	147	256	100	152	1824	192	203	1484	409
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	303	421	0	152	264	0	157	1880	0	209	1530	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	357	473		202	314		206	2822		256	2984	
Arrive On Green	0.10	0.13	0.00	0.02	0.03	0.00	0.06	0.55	0.00	0.07	0.58	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	303	421	0	152	264	0	157	1880	0	209	1530	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	12.6	17.0	0.0	6.4	10.8	0.0	6.5	38.1	0.0	8.7	26.0	0.0
Cycle Q Clear(g_c), s	12.6	17.0	0.0	6.4	10.8	0.0	6.5	38.1	0.0	8.7	26.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	357	473		202	314		206	2822		256	2984	
V/C Ratio(X)	0.85	0.89		0.75	0.84		0.76	0.67		0.82	0.51	
Avail Cap(c_a), veh/h	473	499		308	329		308	2822		296	2984	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.97	0.97	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	64.3	62.2	0.0	70.5	69.8	0.0	67.6	23.1	0.0	66.6	18.0	0.0
Incr Delay (d2), s/veh	10.7	17.2	0.0	5.4	16.5	0.0	6.2	1.3	0.0	14.4	0.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	8.8	0.0	3.1	5.9	0.0	3.0	14.3	0.0	4.2	9.5	0.0
Unsig. Movement Delay, s/veh	0.00			0.00			0.00			0.00		
LnGrp Delay(d), s/veh	75.0	79.4	0.0	75.9	86.3	0.0	73.9	24.4	0.0	81.0	18.6	0.0
LnGrp LOS	E	E	A	E	F	A	E	C		F	B	A
Approach Vol, veh/h	894			519			2037			2161		
Approach Delay, s/veh	62.8			66.2			28.2			21.0		
Approach LOS	E			E			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.3	88.2	13.5	25.9	13.7	92.8	20.1	19.4				
Change Period (Y+Rc), s	7.5	7.5	5.0	6.5	5.0	7.5	5.0	6.5				
Max Green Setting (Gmax), s	12.5	73.5	13.0	20.5	13.0	75.5	20.0	13.5				
Max Q Clear Time (g_c+I1), s	10.7	40.1	8.4	19.0	8.5	28.0	14.6	12.8				
Green Ext Time (p_c), s	0.1	16.7	0.2	0.4	0.2	13.7	0.5	0.1				

Intersection Summary

HCM 7th Control Delay, s/veh 34.5
HCM 7th LOS C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [EBR, WBR, SBR] is included in calculations of the approach delay and intersection delay.

HCM 7th Signalized Intersection Summary
1: Powers Boulevard & Palmer Park Boulevard

2026 Background PM
05/20/2026

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Timings

1: Powers Boulevard & Palmer Park Boulevard

2026 Total AM

05/20/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	186	214	61	199	350	181	126	1683	214	192	1838	229
Future Volume (vph)	186	214	61	199	350	181	126	1683	214	192	1838	229
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			2			Free
Detector Phase	7	4		3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	20.0	20.0	4.0	20.0	
Minimum Split (s)	9.5	40.5		10.5	40.5		9.5	41.5	41.5	11.5	41.5	
Total Split (s)	19.0	20.0		20.0	21.0		17.0	82.0	82.0	24.0	89.0	
Total Split (%)	13.0%	13.7%		13.7%	14.4%		11.6%	56.2%	56.2%	16.4%	61.0%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	5.5	5.5	5.5	5.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	6.5		5.0	6.5		5.0	7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max	C-Max	None	C-Max	

Intersection Summary

Cycle Length: 146

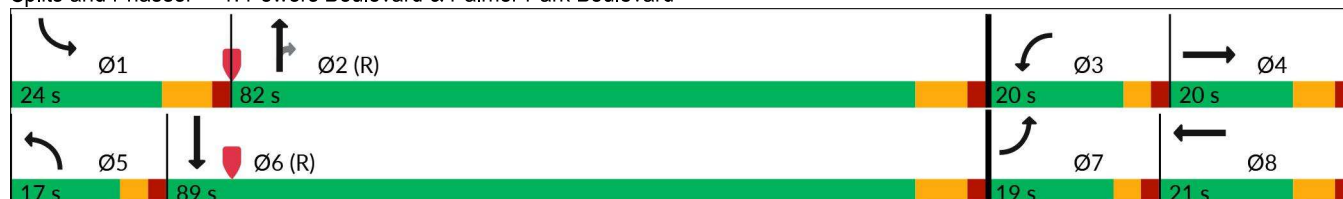
Actuated Cycle Length: 146

Offset: 126 (86%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Splits and Phases: 1: Powers Boulevard & Palmer Park Boulevard



HCM 7th Signalized Intersection Summary

1: Powers Boulevard & Palmer Park Boulevard

2026 Total AM
05/20/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	214	61	199	350	181	126	1683	214	192	1838	229
Future Volume (veh/h)	186	214	61	199	350	181	126	1683	214	192	1838	229
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1841	1841	1841	1870	1870	1870
Adj Flow Rate, veh/h	202	233	0	216	380	0	137	1829	0	209	1998	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	4	4	4	2	2	2
Cap, veh/h	251	340		264	353		184	2870		260	3112	
Arrive On Green	0.07	0.10	0.00	0.13	0.17	0.00	0.05	0.57	0.00	0.08	0.61	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3401	5025	1560	3456	5106	1585
Grp Volume(v), veh/h	202	233	0	216	380	0	137	1829	0	209	1998	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1700	1675	1560	1728	1702	1585
Q Serve(g_s), s	8.4	9.3	0.0	8.9	14.5	0.0	5.8	35.8	0.0	8.7	36.6	0.0
Cycle Q Clear(g_c), s	8.4	9.3	0.0	8.9	14.5	0.0	5.8	35.8	0.0	8.7	36.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	251	340		264	353		184	2870		260	3112	
V/C Ratio(X)	0.80	0.69		0.82	1.08		0.75	0.64		0.80	0.64	
Avail Cap(c_a), veh/h	331	340		355	353		280	2870		391	3112	
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.96	0.96	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	66.7	63.9	0.0	62.7	60.9	0.0	68.1	21.1	0.0	66.4	18.3	0.0
Incr Delay (d2), s/veh	10.2	5.6	0.0	10.2	68.9	0.0	5.9	1.1	0.0	7.1	1.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	4.4	0.0	4.1	9.4	0.0	2.6	13.1	0.0	4.0	13.2	0.0
Unsig. Movement Delay, s/veh	0.00			0.00			0.00			0.00		
LnGrp Delay(d), s/veh	76.9	69.5	0.0	72.9	129.8	0.0	73.9	22.2	0.0	73.5	19.3	0.0
LnGrp LOS	E	E	A	E	F	A	E	C		E	B	A
Approach Vol, veh/h	501			793			1966			2456		
Approach Delay, s/veh	63.3			82.1			25.8			22.0		
Approach LOS	E			F			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.5	90.9	16.1	20.5	12.9	96.5	15.6	21.0				
Change Period (Y+Rc), s	7.5	7.5	5.0	6.5	5.0	7.5	5.0	6.5				
Max Green Setting (Gmax), s	16.5	74.5	15.0	13.5	12.0	81.5	14.0	14.5				
Max Q Clear Time (g_c+I1), s	10.7	37.8	10.9	11.3	7.8	38.6	10.4	16.5				
Green Ext Time (p_c), s	0.3	16.8	0.3	0.3	0.1	20.6	0.2	0.0				

Intersection Summary

HCM 7th Control Delay, s/veh 35.2
HCM 7th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [EBR, WBR, SBR] is included in calculations of the approach delay and intersection delay.

HCM 7th Signalized Intersection Summary
1: Powers Boulevard & Palmer Park Boulevard

2026 Total AM
05/20/2026

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Timings

1: Powers Boulevard & Palmer Park Boulevard

2026 Total PM

05/20/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	294	432	165	174	274	127	152	1824	216	239	1484	409
Future Volume (vph)	294	432	165	174	274	127	152	1824	216	239	1484	409
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			2			Free
Detector Phase	7	4		3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	20.0	20.0	4.0	20.0	
Minimum Split (s)	9.5	40.5		10.5	40.5		9.5	41.5	41.5	11.5	41.5	
Total Split (s)	25.0	27.0		18.0	20.0		18.0	81.0	81.0	20.0	83.0	
Total Split (%)	17.1%	18.5%		12.3%	13.7%		12.3%	55.5%	55.5%	13.7%	56.8%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	5.5	5.5	5.5	5.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	6.5		5.0	6.5		5.0	7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max	C-Max	None	C-Max	

Intersection Summary

Cycle Length: 146

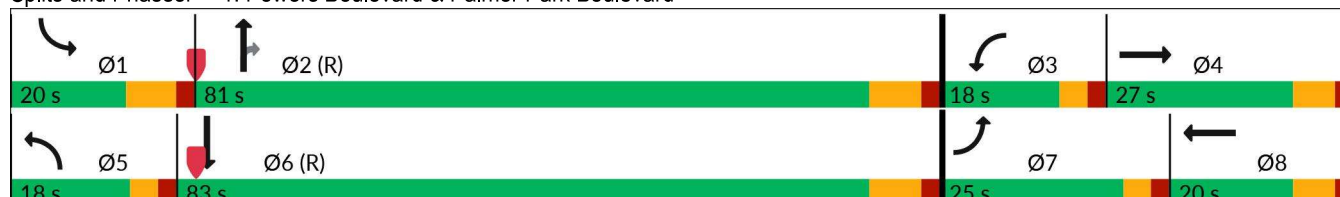
Actuated Cycle Length: 146

Offset: 74 (51%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

Splits and Phases: 1: Powers Boulevard & Palmer Park Boulevard



HCM 7th Signalized Intersection Summary

1: Powers Boulevard & Palmer Park Boulevard

2026 Total PM
05/20/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	294	432	165	174	274	127	152	1824	216	239	1484	409
Future Volume (veh/h)	294	432	165	174	274	127	152	1824	216	239	1484	409
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	303	445	0	179	282	0	157	1880	0	246	1530	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	357	491		229	359		206	2706		290	2919	
Arrive On Green	0.10	0.14	0.00	0.02	0.03	0.00	0.06	0.53	0.00	0.08	0.57	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	303	445	0	179	282	0	157	1880	0	246	1530	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	12.6	18.0	0.0	7.5	11.5	0.0	6.5	40.0	0.0	10.2	26.8	0.0
Cycle Q Clear(g_c), s	12.6	18.0	0.0	7.5	11.5	0.0	6.5	40.0	0.0	10.2	26.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	357	491		229	359		206	2706		290	2919	
V/C Ratio(X)	0.85	0.91		0.78	0.78		0.76	0.69		0.85	0.52	
Avail Cap(c_a), veh/h	473	499		308	359		308	2706		296	2919	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.94	0.94	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	64.3	62.0	0.0	70.3	69.0	0.0	67.6	25.5	0.0	65.9	19.1	0.0
Incr Delay (d2), s/veh	10.7	20.1	0.0	8.3	10.3	0.0	6.2	1.5	0.0	19.6	0.7	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	9.5	0.0	3.7	6.0	0.0	3.0	15.3	0.0	5.2	9.9	0.0
Unsig. Movement Delay, s/veh	0.00			0.00			0.00			0.00		
LnGrp Delay(d), s/veh	75.0	82.1	0.0	78.7	79.3	0.0	73.9	27.0	0.0	85.6	19.8	0.0
LnGrp LOS	E	F	A	E	E	A	E	C		F	B	A
Approach Vol, veh/h	918			592			2037			2198		
Approach Delay, s/veh	64.5			61.5			30.6			23.4		
Approach LOS	E			E			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.8	84.9	14.7	26.7	13.7	91.0	20.1	21.3				
Change Period (Y+Rc), s	7.5	7.5	5.0	6.5	5.0	7.5	5.0	6.5				
Max Green Setting (Gmax), s	12.5	73.5	13.0	20.5	13.0	75.5	20.0	13.5				
Max Q Clear Time (g_c+I1), s	12.2	42.0	9.5	20.0	8.5	28.8	14.6	13.5				
Green Ext Time (p_c), s	0.0	16.2	0.2	0.1	0.2	13.6	0.5	0.0				

Intersection Summary

HCM 7th Control Delay, s/veh 36.5
HCM 7th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [EBR, WBR, SBR] is included in calculations of the approach delay and intersection delay.

HCM 7th Signalized Intersection Summary
1: Powers Boulevard & Palmer Park Boulevard

2026 Total PM
05/20/2026

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Timings

1: Powers Boulevard & Palmer Park Boulevard

2046 Background AM
05/20/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	232	255	76	231	425	208	158	2102	255	221	2297	286
Future Volume (vph)	232	255	76	231	425	208	158	2102	255	221	2297	286
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			2			Free
Detector Phase	7	4		3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	20.0	20.0	4.0	20.0	
Minimum Split (s)	9.5	40.5		10.5	40.5		9.5	41.5	41.5	11.5	41.5	
Total Split (s)	19.0	20.0		20.0	21.0		17.0	82.0	82.0	24.0	89.0	
Total Split (%)	13.0%	13.7%		13.7%	14.4%		11.6%	56.2%	56.2%	16.4%	61.0%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	5.5	5.5	5.5	5.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	6.5		5.0	6.5		5.0	7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max	C-Max	None	C-Max	

Intersection Summary

Cycle Length: 146

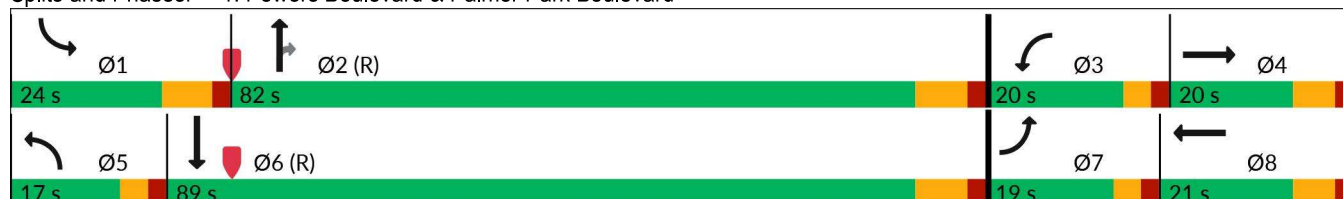
Actuated Cycle Length: 146

Offset: 126 (86%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 145

Control Type: Actuated-Coordinated

Splits and Phases: 1: Powers Boulevard & Palmer Park Boulevard



HCM 7th Signalized Intersection Summary

1: Powers Boulevard & Palmer Park Boulevard

2046 Background AM
05/20/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	232	255	76	231	425	208	158	2102	255	221	2297	286
Future Volume (veh/h)	232	255	76	231	425	208	158	2102	255	221	2297	286
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1841	1841	1841	1870	1870	1870
Adj Flow Rate, veh/h	252	277	0	251	462	0	172	2285	0	240	2497	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	4	4	4	2	2	2
Cap, veh/h	299	355		297	353		219	2757		291	2990	
Arrive On Green	0.09	0.10	0.00	0.14	0.17	0.00	0.06	0.55	0.00	0.08	0.59	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3401	5025	1560	3456	5106	1585
Grp Volume(v), veh/h	252	277	0	251	462	0	172	2285	0	240	2497	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1700	1675	1560	1728	1702	1585
Q Serve(g_s), s	10.5	11.1	0.0	10.3	14.5	0.0	7.3	55.0	0.0	10.0	57.9	0.0
Cycle Q Clear(g_c), s	10.5	11.1	0.0	10.3	14.5	0.0	7.3	55.0	0.0	10.0	57.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	299	355		297	353		219	2757		291	2990	
V/C Ratio(X)	0.84	0.78		0.84	1.31		0.79	0.83		0.83	0.84	
Avail Cap(c_a), veh/h	331	355		355	353		280	2757		391	2990	
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.96	0.96	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	65.7	64.2	0.0	61.6	60.9	0.0	67.3	27.3	0.0	65.8	24.5	0.0
Incr Delay (d2), s/veh	16.4	10.7	0.0	14.2	157.4	0.0	10.8	3.0	0.0	10.3	2.9	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	5.5	0.0	4.9	13.8	0.0	3.4	20.8	0.0	4.7	21.7	0.0
Unsig. Movement Delay, s/veh			0.00			0.00					0.00	
LnGrp Delay(d), s/veh	82.1	74.9	0.0	75.8	218.3	0.0	78.1	30.3	0.0	76.1	27.5	0.0
LnGrp LOS	F	E	A	E	F	A	E	C		E	C	A
Approach Vol, veh/h			612			939			2457			3048
Approach Delay, s/veh			67.7			127.7			33.7			28.5
Approach LOS			E			F			C			C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.8	87.6	17.6	21.1	14.4	93.0	17.6	21.0				
Change Period (Y+Rc), s	7.5	7.5	5.0	6.5	5.0	7.5	5.0	6.5				
Max Green Setting (Gmax), s	16.5	74.5	15.0	13.5	12.0	81.5	14.0	14.5				
Max Q Clear Time (g_c+I1), s	12.0	57.0	12.3	13.1	9.3	59.9	12.5	16.5				
Green Ext Time (p_c), s	0.3	13.6	0.2	0.1	0.1	17.3	0.1	0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh			46.9									
HCM 7th LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												
Unsignalized Delay for [EBR, WBR, SBR] is included in calculations of the approach delay and intersection delay.												

HCM 7th Signalized Intersection Summary
1: Powers Boulevard & Palmer Park Boulevard

2046 Background AM
05/20/2026

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Timings

1: Powers Boulevard & Palmer Park Boulevard

2046 Background PM

05/20/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	368	509	206	183	320	125	190	2279	240	254	1855	510
Future Volume (vph)	368	509	206	183	320	125	190	2279	240	254	1855	510
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			2			Free
Detector Phase	7	4		3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	20.0	20.0	4.0	20.0	
Minimum Split (s)	9.5	40.5		10.5	40.5		9.5	41.5	41.5	11.5	41.5	
Total Split (s)	25.0	27.0		18.0	20.0		18.0	81.0	81.0	20.0	83.0	
Total Split (%)	17.1%	18.5%		12.3%	13.7%		12.3%	55.5%	55.5%	13.7%	56.8%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	5.5	5.5	5.5	5.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	6.5		5.0	6.5		5.0	7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max	C-Max	None	C-Max	

Intersection Summary

Cycle Length: 146

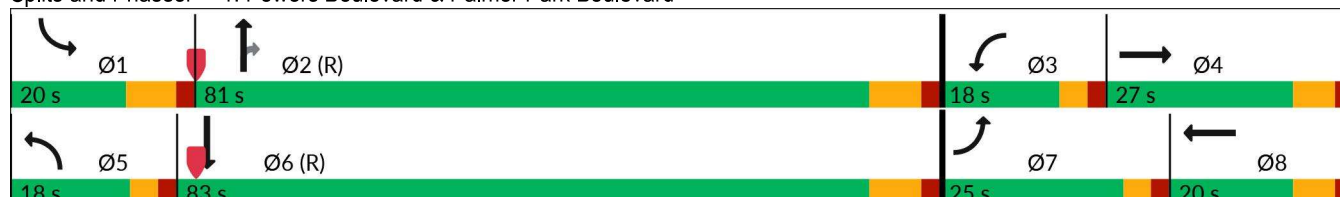
Actuated Cycle Length: 146

Offset: 74 (51%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 145

Control Type: Actuated-Coordinated

Splits and Phases: 1: Powers Boulevard & Palmer Park Boulevard



HCM 7th Signalized Intersection Summary

1: Powers Boulevard & Palmer Park Boulevard

2046 Background PM
05/20/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	368	509	206	183	320	125	190	2279	240	254	1855	510
Future Volume (veh/h)	368	509	206	183	320	125	190	2279	240	254	1855	510
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	379	525	0	189	330	0	196	2349	0	262	1912	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	428	523		239	329		244	2637		296	2801	
Arrive On Green	0.12	0.15	0.00	0.02	0.03	0.00	0.07	0.52	0.00	0.09	0.55	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	379	525	0	189	330	0	196	2349	0	262	1912	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	15.8	21.5	0.0	7.9	13.5	0.0	8.2	60.1	0.0	11.0	39.4	0.0
Cycle Q Clear(g_c), s	15.8	21.5	0.0	7.9	13.5	0.0	8.2	60.1	0.0	11.0	39.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	428	523		239	329		244	2637		296	2801	
V/C Ratio(X)	0.89	1.00		0.79	1.00		0.80	0.89		0.89	0.68	
Avail Cap(c_a), veh/h	473	523		308	329		308	2637		296	2801	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.96	0.96	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	62.9	62.3	0.0	70.3	70.8	0.0	66.8	31.6	0.0	66.0	23.8	0.0
Incr Delay (d2), s/veh	16.8	40.4	0.0	9.7	49.7	0.0	11.5	5.0	0.0	25.7	1.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	12.6	0.0	4.0	8.8	0.0	3.9	23.8	0.0	5.7	14.9	0.0
Unsig. Movement Delay, s/veh	0.00			0.00			0.00			0.00		
LnGrp Delay(d), s/veh	79.8	102.6	0.0	80.0	120.5	0.0	78.3	36.6	0.0	91.8	25.1	0.0
LnGrp LOS	E	F	A	F	F	A	E	D		F	C	A
Approach Vol, veh/h	1116			648			2545			2700		
Approach Delay, s/veh	75.4			84.7			39.9			26.7		
Approach LOS	E			F			D			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.0	82.9	15.1	28.0	15.3	87.6	23.1	20.0				
Change Period (Y+Rc), s	7.5	7.5	5.0	6.5	5.0	7.5	5.0	6.5				
Max Green Setting (Gmax), s	12.5	73.5	13.0	20.5	13.0	75.5	20.0	13.5				
Max Q Clear Time (g_c+I1), s	13.0	62.1	9.9	23.5	10.2	41.4	17.8	15.5				
Green Ext Time (p_c), s	0.0	9.6	0.2	0.0	0.2	17.3	0.3	0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	44.6											
HCM 7th LOS	D											
Notes												
User approved pedestrian interval to be less than phase max green.												
Unsignalized Delay for [EBR, WBR, SBR] is included in calculations of the approach delay and intersection delay.												

HCM 7th Signalized Intersection Summary
1: Powers Boulevard & Palmer Park Boulevard

2046 Background PM
05/20/2026

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Timings

1: Powers Boulevard & Palmer Park Boulevard

2046 Total AM

05/20/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	232	265	76	245	435	222	158	2102	265	236	2297	286
Future Volume (vph)	232	265	76	245	435	222	158	2102	265	236	2297	286
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			2			Free
Detector Phase	7	4		3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	20.0	20.0	4.0	20.0	
Minimum Split (s)	9.5	40.5		10.5	40.5		9.5	41.5	41.5	11.5	41.5	
Total Split (s)	19.0	20.0		20.0	21.0		17.0	82.0	82.0	24.0	89.0	
Total Split (%)	13.0%	13.7%		13.7%	14.4%		11.6%	56.2%	56.2%	16.4%	61.0%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	5.5	5.5	5.5	5.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	6.5		5.0	6.5		5.0	7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max	C-Max	None	C-Max	

Intersection Summary

Cycle Length: 146

Actuated Cycle Length: 146

Offset: 126 (86%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 145

Control Type: Actuated-Coordinated

Splits and Phases: 1: Powers Boulevard & Palmer Park Boulevard

	Ø1		Ø2 (R)		Ø3		Ø4
24 s		82 s		20 s		20 s	
	Ø5		Ø6 (R)		Ø7		Ø8
17 s		89 s		19 s		21 s	

HCM 7th Signalized Intersection Summary

1: Powers Boulevard & Palmer Park Boulevard

2046 Total AM
05/20/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	232	265	76	245	435	222	158	2102	265	236	2297	286
Future Volume (veh/h)	232	265	76	245	435	222	158	2102	265	236	2297	286
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1841	1841	1841	1870	1870	1870
Adj Flow Rate, veh/h	252	288	0	266	473	0	172	2285	0	257	2497	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	4	4	4	2	2	2
Cap, veh/h	299	335		316	353		219	2733		307	2990	
Arrive On Green	0.09	0.09	0.00	0.03	0.03	0.00	0.06	0.54	0.00	0.09	0.59	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3401	5025	1560	3456	5106	1585
Grp Volume(v), veh/h	252	288	0	266	473	0	172	2285	0	257	2497	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1700	1675	1560	1728	1702	1585
Q Serve(g_s), s	10.5	11.7	0.0	11.2	14.5	0.0	7.3	55.5	0.0	10.7	57.9	0.0
Cycle Q Clear(g_c), s	10.5	11.7	0.0	11.2	14.5	0.0	7.3	55.5	0.0	10.7	57.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	299	335		316	353		219	2733		307	2990	
V/C Ratio(X)	0.84	0.86		0.84	1.34		0.79	0.84		0.84	0.84	
Avail Cap(c_a), veh/h	331	335		355	353		280	2733		391	2990	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.94	0.94	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	65.7	65.2	0.0	69.7	70.6	0.0	67.3	27.9	0.0	65.5	24.5	0.0
Incr Delay (d2), s/veh	16.4	19.5	0.0	14.4	170.1	0.0	10.8	3.2	0.0	12.0	2.9	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	6.2	0.0	5.8	15.3	0.0	3.4	21.1	0.0	5.1	21.7	0.0
Unsig. Movement Delay, s/veh	0.00			0.00			0.00			0.00		
LnGrp Delay(d), s/veh	82.1	84.7	0.0	84.1	240.7	0.0	78.1	31.1	0.0	77.4	27.5	0.0
LnGrp LOS	F	F	A	F	F	A	E	C		E	C	A
Approach Vol, veh/h	623			980			2457			3065		
Approach Delay, s/veh	72.4			139.0			34.4			28.9		
Approach LOS	E			F			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.5	86.9	18.4	20.3	14.4	93.0	17.6	21.0				
Change Period (Y+Rc), s	7.5	7.5	5.0	6.5	5.0	7.5	5.0	6.5				
Max Green Setting (Gmax), s	16.5	74.5	15.0	13.5	12.0	81.5	14.0	14.5				
Max Q Clear Time (g_c+I1), s	12.7	57.5	13.2	13.7	9.3	59.9	12.5	16.5				
Green Ext Time (p_c), s	0.3	13.2	0.2	0.0	0.1	17.3	0.1	0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	49.7											
HCM 7th LOS	D											
Notes												
User approved pedestrian interval to be less than phase max green.												
Unsignalized Delay for [EBR, WBR, SBR] is included in calculations of the approach delay and intersection delay.												

HCM 7th Signalized Intersection Summary
1: Powers Boulevard & Palmer Park Boulevard

2046 Total AM
05/20/2026

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Timings

2046 Total PM

1: Powers Boulevard & Palmer Park Boulevard

05/20/2026



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗
Traffic Volume (vph)	368	533	206	210	338	152	190	2279	264	290	1855	510
Future Volume (vph)	368	533	206	210	338	152	190	2279	264	290	1855	510
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			2			Free
Detector Phase	7	4		3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	20.0	20.0	4.0	20.0	
Minimum Split (s)	9.5	40.5		10.5	40.5		9.5	41.5	41.5	11.5	41.5	
Total Split (s)	25.0	27.0		18.0	20.0		18.0	81.0	81.0	20.0	83.0	
Total Split (%)	17.1%	18.5%		12.3%	13.7%		12.3%	55.5%	55.5%	13.7%	56.8%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	5.5	5.5	5.5	5.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	6.5		5.0	6.5		5.0	7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max	C-Max	None	C-Max	

Intersection Summary

Cycle Length: 146

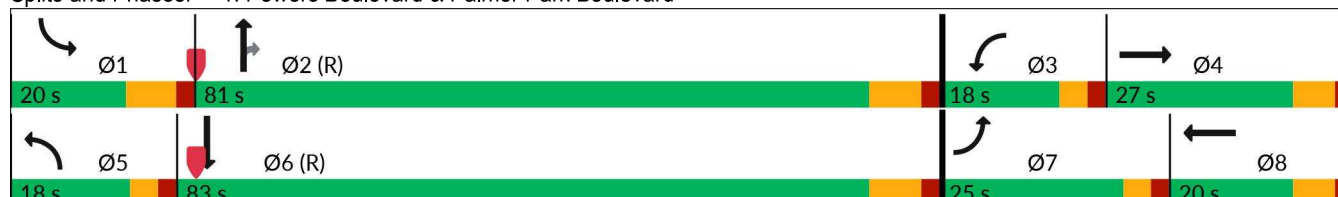
Actuated Cycle Length: 146

Offset: 74 (51%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 145

Control Type: Actuated-Coordinated

Splits and Phases: 1: Powers Boulevard & Palmer Park Boulevard



HCM 7th Signalized Intersection Summary

1: Powers Boulevard & Palmer Park Boulevard

2046 Total PM
05/20/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	368	533	206	210	338	152	190	2279	264	290	1855	510
Future Volume (veh/h)	368	533	206	210	338	152	190	2279	264	290	1855	510
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	379	549	0	216	348	0	196	2349	0	299	1912	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	428	499		265	332		244	2633		296	2797	
Arrive On Green	0.12	0.14	0.00	0.03	0.03	0.00	0.07	0.52	0.00	0.09	0.55	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	379	549	0	216	348	0	196	2349	0	299	1912	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	15.8	20.5	0.0	9.1	13.6	0.0	8.2	60.2	0.0	12.5	39.5	0.0
Cycle Q Clear(g_c), s	15.8	20.5	0.0	9.1	13.6	0.0	8.2	60.2	0.0	12.5	39.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	428	499		265	332		244	2633		296	2797	
V/C Ratio(X)	0.89	1.10		0.81	1.05		0.80	0.89		1.01	0.68	
Avail Cap(c_a), veh/h	473	499		308	332		308	2633		296	2797	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.93	0.93	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	62.9	62.7	0.0	70.1	70.8	0.0	66.8	31.7	0.0	66.8	23.9	0.0
Incr Delay (d2), s/veh	16.8	70.5	0.0	12.8	61.2	0.0	11.5	5.1	0.0	55.0	1.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	14.1	0.0	4.7	9.4	0.0	3.9	23.9	0.0	7.6	15.0	0.0
Unsig. Movement Delay, s/veh	0.00			0.00			0.00			0.00		
LnGrp Delay(d), s/veh	79.8	133.2	0.0	82.9	131.9	0.0	78.3	36.8	0.0	121.8	25.2	0.0
LnGrp LOS	E	F	A	F	F	A	E	D		F	C	A
Approach Vol, veh/h	1140			721			2545			2737		
Approach Delay, s/veh	90.7			88.5			40.0			30.9		
Approach LOS	F			F			D			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.0	82.8	16.2	27.0	15.3	87.5	23.1	20.1				
Change Period (Y+Rc), s	7.5	7.5	5.0	6.5	5.0	7.5	5.0	6.5				
Max Green Setting (Gmax), s	12.5	73.5	13.0	20.5	13.0	75.5	20.0	13.5				
Max Q Clear Time (g_c+I1), s	14.5	62.2	11.1	22.5	10.2	41.5	17.8	15.6				
Green Ext Time (p_c), s	0.0	9.5	0.1	0.0	0.2	17.3	0.3	0.0				

Intersection Summary

HCM 7th Control Delay, s/veh 49.5
HCM 7th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [EBR, WBR, SBR] is included in calculations of the approach delay and intersection delay.

HCM 7th Signalized Intersection Summary
1: Powers Boulevard & Palmer Park Boulevard

2046 Total PM
05/20/2026

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Timings
2: West Access & Palmer Park Boulevard

2025 Existing AM
05/20/2026

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	14	443	125	39	604	75	2	7	2
Future Volume (vph)	14	443	125	39	604	75	2	7	2
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	NA
Protected Phases		6			2		8		4
Permitted Phases	6		6	2		8		4	
Detector Phase	6	6	6	2	2	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	106.0	106.0	106.0	106.0	106.0	40.0	40.0	40.0	40.0
Total Split (%)	72.6%	72.6%	72.6%	72.6%	72.6%	27.4%	27.4%	27.4%	27.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 146
Actuated Cycle Length: 146
Offset: 70 (48%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated

Splits and Phases: 2: West Access & Palmer Park Boulevard



HCM 7th Signalized Intersection Summary 2: West Access & Palmer Park Boulevard

2025 Existing AM
05/20/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	443	125	39	604	6	75	2	38	7	2	13
Future Volume (veh/h)	14	443	125	39	604	6	75	2	38	7	2	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1811	1811	1811	1767	1767	1767
Adj Flow Rate, veh/h	15	461	130	41	629	6	78	2	40	7	2	14
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	2	2	2	6	6	6	9	9	9
Cap, veh/h	679	2944	1313	739	3012	29	148	6	122	123	16	110
Arrive On Green	1.00	1.00	1.00	0.84	0.84	0.84	0.08	0.08	0.08	0.08	0.08	0.08
Sat Flow, veh/h	786	3526	1572	826	3607	34	1353	74	1472	1289	191	1335
Grp Volume(v), veh/h	15	461	130	41	310	325	78	0	42	7	0	16
Grp Sat Flow(s),veh/h/ln	786	1763	1572	826	1777	1864	1353	0	1546	1289	0	1526
Q Serve(g_s), s	0.1	0.0	0.0	1.3	5.1	5.1	8.3	0.0	3.7	0.8	0.0	1.4
Cycle Q Clear(g_c), s	5.2	0.0	0.0	1.3	5.1	5.1	9.7	0.0	3.7	4.5	0.0	1.4
Prop In Lane	1.00		1.00	1.00		0.02	1.00		0.95	1.00		0.88
Lane Grp Cap(c), veh/h	679	2944	1313	739	1484	1557	148	0	128	123	0	126
V/C Ratio(X)	0.02	0.16	0.10	0.06	0.21	0.21	0.53	0.00	0.33	0.06	0.00	0.13
Avail Cap(c_a), veh/h	679	2944	1313	739	1484	1557	351	0	360	316	0	355
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.1	0.0	0.0	2.1	2.4	2.4	66.6	0.0	63.1	65.3	0.0	62.1
Incr Delay (d2), s/veh	0.1	0.1	0.1	0.1	0.3	0.3	2.9	0.0	1.5	0.2	0.0	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.2	1.5	1.5	3.0	0.0	1.5	0.3	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.2	0.1	0.1	2.2	2.7	2.7	69.5	0.0	64.6	65.5	0.0	62.5
LnGrp LOS	A	A	A	A	A	A	E		E	E		E
Approach Vol, veh/h	606			676			120			23		
Approach Delay, s/veh	0.1			2.7			67.8			63.4		
Approach LOS	A			A			E			E		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	127.9			18.1			127.9			18.1		
Change Period (Y+Rc), s	6.0			6.0			6.0			6.0		
Max Green Setting (Gmax), s	100.0			34.0			100.0			34.0		
Max Q Clear Time (g_c+I1), s	7.1			6.5			7.2			11.7		
Green Ext Time (p_c), s	4.6			0.1			3.9			0.4		
Intersection Summary												
HCM 7th Control Delay, s/veh				8.1								
HCM 7th LOS				A								

Timings
2: West Access & Palmer Park Boulevard

2025 Existing PM
05/20/2026

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	51	584	94	35	358	108	2	15	5
Future Volume (vph)	51	584	94	35	358	108	2	15	5
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	NA
Protected Phases		6			2		8		4
Permitted Phases	6		6	2		8		4	
Detector Phase	6	6	6	2	2	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	113.0	113.0	113.0	113.0	113.0	33.0	33.0	33.0	33.0
Total Split (%)	77.4%	77.4%	77.4%	77.4%	77.4%	22.6%	22.6%	22.6%	22.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 146

Actuated Cycle Length: 146

Offset: 42 (29%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Splits and Phases: 2: West Access & Palmer Park Boulevard



HCM 7th Signalized Intersection Summary 2: West Access & Palmer Park Boulevard

2025 Existing PM
05/20/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	584	94	35	358	24	108	2	65	15	5	53
Future Volume (veh/h)	51	584	94	35	358	24	108	2	65	15	5	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	635	102	38	389	26	117	2	71	16	5	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	779	2773	1237	612	2638	176	186	6	213	177	18	203
Arrive On Green	1.00	1.00	1.00	0.78	0.78	0.78	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	971	3554	1585	721	3382	225	1339	44	1548	1327	127	1477
Grp Volume(v), veh/h	55	635	102	38	204	211	117	0	73	16	0	63
Grp Sat Flow(s),veh/h/ln	971	1777	1585	721	1777	1830	1339	0	1592	1327	0	1604
Q Serve(g_s), s	0.3	0.0	0.0	1.8	4.2	4.2	12.5	0.0	6.1	1.6	0.0	5.1
Cycle Q Clear(g_c), s	4.5	0.0	0.0	1.8	4.2	4.2	17.7	0.0	6.1	7.7	0.0	5.1
Prop In Lane	1.00		1.00	1.00		0.12	1.00		0.97	1.00		0.92
Lane Grp Cap(c), veh/h	779	2773	1237	612	1386	1428	186	0	219	177	0	221
V/C Ratio(X)	0.07	0.23	0.08	0.06	0.15	0.15	0.63	0.00	0.33	0.09	0.00	0.29
Avail Cap(c_a), veh/h	779	2773	1237	612	1386	1428	250	0	294	240	0	297
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.69	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.1	0.0	0.0	3.7	4.0	4.0	64.4	0.0	56.9	60.4	0.0	56.5
Incr Delay (d2), s/veh	0.1	0.1	0.1	0.2	0.2	0.2	3.4	0.0	0.9	0.2	0.0	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	0.3	1.4	1.5	4.5	0.0	2.5	0.6	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.2	0.1	0.1	3.9	4.2	4.2	67.9	0.0	57.8	60.6	0.0	57.2
LnGrp LOS	A	A	A	A	A	A	E		E	E		E
Approach Vol, veh/h	792			453			190			79		
Approach Delay, s/veh	0.1			4.2			64.0			57.9		
Approach LOS	A			A			E			E		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	119.9			26.1			119.9			26.1		
Change Period (Y+Rc), s	6.0			6.0			6.0			6.0		
Max Green Setting (Gmax), s	107.0			27.0			107.0			27.0		
Max Q Clear Time (g_c+I1), s	6.2			9.7			6.5			19.7		
Green Ext Time (p_c), s	2.9			0.3			5.6			0.4		
Intersection Summary												
HCM 7th Control Delay, s/veh	12.4											
HCM 7th LOS	B											

Timings 2: West Access & Palmer Park Boulevard

2026 Background AM
05/20/2026

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	14	448	126	39	611	76	2	7	2
Future Volume (vph)	14	448	126	39	611	76	2	7	2
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	NA
Protected Phases		6			2		8		4
Permitted Phases	6		6	2		8		4	
Detector Phase	6	6	6	2	2	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	106.0	106.0	106.0	106.0	106.0	40.0	40.0	40.0	40.0
Total Split (%)	72.6%	72.6%	72.6%	72.6%	72.6%	27.4%	27.4%	27.4%	27.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 146

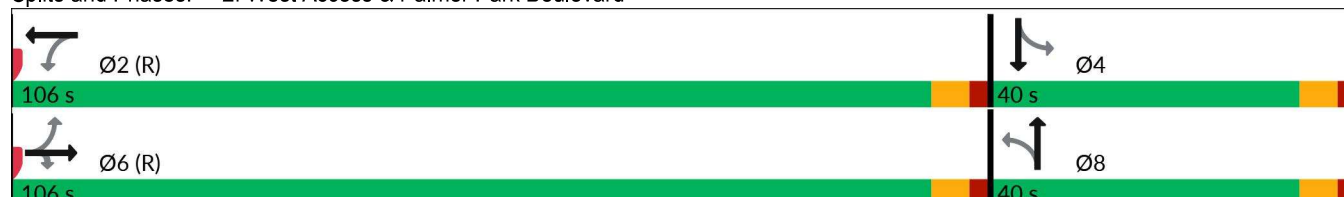
Actuated Cycle Length: 146

Offset: 70 (48%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Splits and Phases: 2: West Access & Palmer Park Boulevard



HCM 7th Signalized Intersection Summary 2: West Access & Palmer Park Boulevard

2026 Background AM
05/20/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	448	126	39	611	6	76	2	38	7	2	13
Future Volume (veh/h)	14	448	126	39	611	6	76	2	38	7	2	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1811	1811	1811	1767	1767	1767
Adj Flow Rate, veh/h	15	467	131	41	636	6	79	2	40	7	2	14
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	2	2	2	6	6	6	9	9	9
Cap, veh/h	673	2942	1312	734	3010	28	149	6	123	124	16	111
Arrive On Green	1.00	1.00	1.00	0.83	0.83	0.83	0.08	0.08	0.08	0.08	0.08	0.08
Sat Flow, veh/h	781	3526	1572	820	3607	34	1353	74	1472	1289	191	1335
Grp Volume(v), veh/h	15	467	131	41	313	329	79	0	42	7	0	16
Grp Sat Flow(s),veh/h/ln	781	1763	1572	820	1777	1864	1353	0	1546	1289	0	1526
Q Serve(g_s), s	0.1	0.0	0.0	1.3	5.2	5.2	8.4	0.0	3.7	0.8	0.0	1.4
Cycle Q Clear(g_c), s	5.3	0.0	0.0	1.3	5.2	5.2	9.8	0.0	3.7	4.5	0.0	1.4
Prop In Lane	1.00		1.00	1.00		0.02	1.00		0.95	1.00		0.88
Lane Grp Cap(c), veh/h	673	2942	1312	734	1483	1556	149	0	129	124	0	127
V/C Ratio(X)	0.02	0.16	0.10	0.06	0.21	0.21	0.53	0.00	0.33	0.06	0.00	0.13
Avail Cap(c_a), veh/h	673	2942	1312	734	1483	1556	351	0	360	317	0	355
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.1	0.0	0.0	2.1	2.4	2.4	66.5	0.0	63.0	65.2	0.0	62.0
Incr Delay (d2), s/veh	0.1	0.1	0.1	0.1	0.3	0.3	2.9	0.0	1.5	0.2	0.0	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.2	1.5	1.6	3.0	0.0	1.5	0.3	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.2	0.1	0.1	2.3	2.8	2.7	69.4	0.0	64.5	65.3	0.0	62.4
LnGrp LOS	A	A	A	A	A	A	E		E	E		E
Approach Vol, veh/h	613			683			121			23		
Approach Delay, s/veh	0.1			2.7			67.7			63.3		
Approach LOS	A			A			E			E		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	127.8			18.2			127.8			18.2		
Change Period (Y+Rc), s	6.0			6.0			6.0			6.0		
Max Green Setting (Gmax), s	100.0			34.0			100.0			34.0		
Max Q Clear Time (g_c+I1), s	7.2			6.5			7.3			11.8		
Green Ext Time (p_c), s	4.6			0.1			4.0			0.4		
Intersection Summary												
HCM 7th Control Delay, s/veh				8.0								
HCM 7th LOS				A								

Timings 2: West Access & Palmer Park Boulevard

2026 Background PM
05/20/2026

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	52	591	95	35	362	109	2	15	5
Future Volume (vph)	52	591	95	35	362	109	2	15	5
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	NA
Protected Phases		6			2		8		4
Permitted Phases	6		6	2		8		4	
Detector Phase	6	6	6	2	2	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	113.0	113.0	113.0	113.0	113.0	33.0	33.0	33.0	33.0
Total Split (%)	77.4%	77.4%	77.4%	77.4%	77.4%	22.6%	22.6%	22.6%	22.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 146

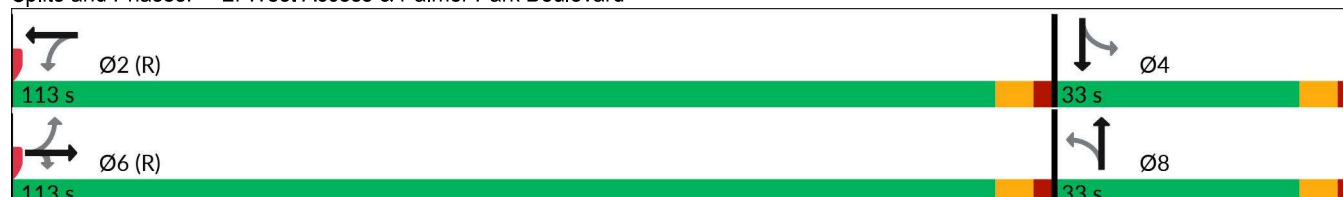
Actuated Cycle Length: 146

Offset: 42 (29%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Splits and Phases: 2: West Access & Palmer Park Boulevard



HCM 7th Signalized Intersection Summary 2: West Access & Palmer Park Boulevard

2026 Background PM
05/20/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	591	95	35	362	24	109	2	66	15	5	54
Future Volume (veh/h)	52	591	95	35	362	24	109	2	66	15	5	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	642	103	38	393	26	118	2	72	16	5	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	775	2768	1235	607	2636	174	187	6	215	178	17	205
Arrive On Green	1.00	1.00	1.00	0.78	0.78	0.78	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	968	3554	1585	715	3384	223	1338	43	1549	1326	125	1479
Grp Volume(v), veh/h	57	642	103	38	206	213	118	0	74	16	0	64
Grp Sat Flow(s),veh/h/ln	968	1777	1585	715	1777	1830	1338	0	1592	1326	0	1604
Q Serve(g_s), s	0.3	0.0	0.0	1.8	4.2	4.3	12.7	0.0	6.1	1.6	0.0	5.2
Cycle Q Clear(g_c), s	4.6	0.0	0.0	1.8	4.2	4.3	17.9	0.0	6.1	7.7	0.0	5.2
Prop In Lane	1.00		1.00	1.00		0.12	1.00		0.97	1.00		0.92
Lane Grp Cap(c), veh/h	775	2768	1235	607	1384	1425	187	0	221	178	0	223
V/C Ratio(X)	0.07	0.23	0.08	0.06	0.15	0.15	0.63	0.00	0.33	0.09	0.00	0.29
Avail Cap(c_a), veh/h	775	2768	1235	607	1384	1425	249	0	294	239	0	297
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.68	0.68	0.68	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.1	0.0	0.0	3.8	4.0	4.0	64.4	0.0	56.8	60.3	0.0	56.4
Incr Delay (d2), s/veh	0.1	0.1	0.1	0.2	0.2	0.2	3.5	0.0	0.9	0.2	0.0	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	0.3	1.4	1.5	4.5	0.0	2.5	0.6	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.2	0.1	0.1	4.0	4.3	4.3	67.9	0.0	57.6	60.5	0.0	57.1
LnGrp LOS	A	A	A	A	A	A	E		E	E		E
Approach Vol, veh/h	802			457			192			80		
Approach Delay, s/veh	0.1			4.2			63.9			57.8		
Approach LOS	A			A			E			E		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	119.7			26.3			119.7			26.3		
Change Period (Y+Rc), s	6.0			6.0			6.0			6.0		
Max Green Setting (Gmax), s	107.0			27.0			107.0			27.0		
Max Q Clear Time (g_c+I1), s	6.3			9.7			6.6			19.9		
Green Ext Time (p_c), s	3.0			0.3			5.7			0.4		
Intersection Summary												
HCM 7th Control Delay, s/veh	12.4											
HCM 7th LOS	B											

Timings
2: West Access & Palmer Park Boulevard

2026 Total AM
05/20/2026

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	14	450	158	44	613	112	2	7	2
Future Volume (vph)	14	450	158	44	613	112	2	7	2
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	NA
Protected Phases		6			2		8		4
Permitted Phases	6		6	2		8		4	
Detector Phase	6	6	6	2	2	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	106.0	106.0	106.0	106.0	106.0	40.0	40.0	40.0	40.0
Total Split (%)	72.6%	72.6%	72.6%	72.6%	72.6%	27.4%	27.4%	27.4%	27.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 146
Actuated Cycle Length: 146
Offset: 70 (48%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated

Splits and Phases: 2: West Access & Palmer Park Boulevard



HCM 7th Signalized Intersection Summary 2: West Access & Palmer Park Boulevard

2026 Total AM
05/20/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	450	158	44	613	6	112	2	43	7	2	13
Future Volume (veh/h)	14	450	158	44	613	6	112	2	43	7	2	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1811	1811	1811	1767	1767	1767
Adj Flow Rate, veh/h	15	469	165	46	639	6	117	2	45	7	2	14
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	2	2	2	6	6	6	9	9	9
Cap, veh/h	645	2842	1268	689	2908	27	188	7	165	157	21	149
Arrive On Green	1.00	1.00	1.00	0.81	0.81	0.81	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	779	3526	1572	793	3607	34	1353	66	1479	1283	191	1335
Grp Volume(v), veh/h	15	469	165	46	315	330	117	0	47	7	0	16
Grp Sat Flow(s),veh/h/ln	779	1763	1572	793	1777	1864	1353	0	1545	1283	0	1526
Q Serve(g_s), s	0.1	0.0	0.0	1.7	6.1	6.1	12.4	0.0	4.1	0.7	0.0	1.4
Cycle Q Clear(g_c), s	6.2	0.0	0.0	1.7	6.1	6.1	13.8	0.0	4.1	4.8	0.0	1.4
Prop In Lane	1.00		1.00	1.00		0.02	1.00		0.96	1.00		0.88
Lane Grp Cap(c), veh/h	645	2842	1268	689	1432	1503	188	0	172	157	0	170
V/C Ratio(X)	0.02	0.17	0.13	0.07	0.22	0.22	0.62	0.00	0.27	0.04	0.00	0.09
Avail Cap(c_a), veh/h	645	2842	1268	689	1432	1503	352	0	360	312	0	355
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.2	0.0	0.0	2.9	3.3	3.3	64.4	0.0	59.4	61.6	0.0	58.2
Incr Delay (d2), s/veh	0.1	0.1	0.2	0.2	0.4	0.3	3.4	0.0	0.8	0.1	0.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.1	0.3	2.0	2.0	4.5	0.0	1.6	0.2	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.2	0.1	0.2	3.1	3.7	3.7	67.8	0.0	60.3	61.7	0.0	58.5
LnGrp LOS	A	A	A	A	A	A	E		E	E		E
Approach Vol, veh/h	649			691			164			23		
Approach Delay, s/veh	0.1			3.6			65.6			59.5		
Approach LOS	A			A			E			E		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	123.7			22.3			123.7			22.3		
Change Period (Y+Rc), s	6.0			6.0			6.0			6.0		
Max Green Setting (Gmax), s	100.0			34.0			100.0			34.0		
Max Q Clear Time (g_c+I1), s	8.1			6.8			8.2			15.8		
Green Ext Time (p_c), s	4.7			0.1			4.1			0.5		
Intersection Summary												
HCM 7th Control Delay, s/veh				9.6								
HCM 7th LOS				A								

Timings

2: West Access & Palmer Park Boulevard

2026 Total PM
05/20/2026

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	52	597	174	47	367	177	2	15	5
Future Volume (vph)	52	597	174	47	367	177	2	15	5
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	NA
Protected Phases		6			2		8		4
Permitted Phases	6		6	2		8		4	
Detector Phase	6	6	6	2	2	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	100.0	100.0	100.0	100.0	100.0	46.0	46.0	46.0	46.0
Total Split (%)	68.5%	68.5%	68.5%	68.5%	68.5%	31.5%	31.5%	31.5%	31.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 146

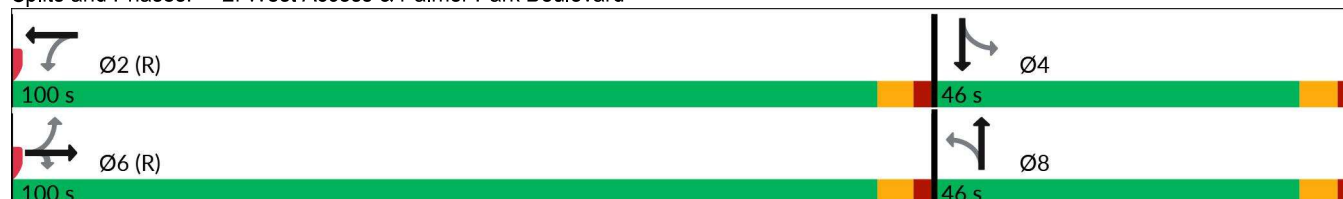
Actuated Cycle Length: 146

Offset: 42 (29%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Splits and Phases: 2: West Access & Palmer Park Boulevard



HCM 7th Signalized Intersection Summary 2: West Access & Palmer Park Boulevard

2026 Total PM
05/20/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	597	174	47	367	24	177	2	75	15	5	54
Future Volume (veh/h)	52	597	174	47	367	24	177	2	75	15	5	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	649	189	51	399	26	192	2	82	16	5	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	711	2573	1148	518	2453	159	264	7	301	245	24	287
Arrive On Green	0.96	0.96	0.96	0.72	0.72	0.72	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	962	3554	1585	656	3388	220	1338	38	1553	1314	125	1479
Grp Volume(v), veh/h	57	649	189	51	209	216	192	0	84	16	0	64
Grp Sat Flow(s),veh/h/ln	962	1777	1585	656	1777	1831	1338	0	1591	1314	0	1604
Q Serve(g_s), s	0.8	1.3	0.8	3.5	5.4	5.4	20.5	0.0	6.6	1.5	0.0	4.9
Cycle Q Clear(g_c), s	6.2	1.3	0.8	4.8	5.4	5.4	25.4	0.0	6.6	8.1	0.0	4.9
Prop In Lane	1.00		1.00	1.00		0.12	1.00		0.98	1.00		0.92
Lane Grp Cap(c), veh/h	711	2573	1148	518	1287	1326	264	0	308	245	0	311
V/C Ratio(X)	0.08	0.25	0.16	0.10	0.16	0.16	0.73	0.00	0.27	0.07	0.00	0.21
Avail Cap(c_a), veh/h	711	2573	1148	518	1287	1326	371	0	436	350	0	439
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.62	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	1.1	0.8	0.8	6.4	6.3	6.3	60.1	0.0	50.1	53.5	0.0	49.4
Incr Delay (d2), s/veh	0.1	0.1	0.2	0.4	0.3	0.3	4.3	0.0	0.5	0.1	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.4	0.3	0.5	2.0	2.1	7.3	0.0	2.7	0.5	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	1.2	0.9	1.0	6.8	6.6	6.6	64.4	0.0	50.6	53.7	0.0	49.7
LnGrp LOS	A	A	A	A	A	A	E		D	D		D
Approach Vol, veh/h	895			476			276			80		
Approach Delay, s/veh	0.9			6.6			60.2			50.5		
Approach LOS	A			A			E			D		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	111.7			34.3			111.7			34.3		
Change Period (Y+Rc), s	6.0			6.0			6.0			6.0		
Max Green Setting (Gmax), s	94.0			40.0			94.0			40.0		
Max Q Clear Time (g_c+I1), s	7.4			10.1			8.2			27.4		
Green Ext Time (p_c), s	3.2			0.4			6.2			0.9		
Intersection Summary												
HCM 7th Control Delay, s/veh	14.3											
HCM 7th LOS	B											

Timings

2: West Access & Palmer Park Boulevard

2046 Background AM
05/20/2026

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	18	560	158	49	763	95	3	9	3
Future Volume (vph)	18	560	158	49	763	95	3	9	3
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	NA
Protected Phases		6			2		8		4
Permitted Phases	6		6	2		8		4	
Detector Phase	6	6	6	2	2	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	106.0	106.0	106.0	106.0	106.0	40.0	40.0	40.0	40.0
Total Split (%)	72.6%	72.6%	72.6%	72.6%	72.6%	27.4%	27.4%	27.4%	27.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 146

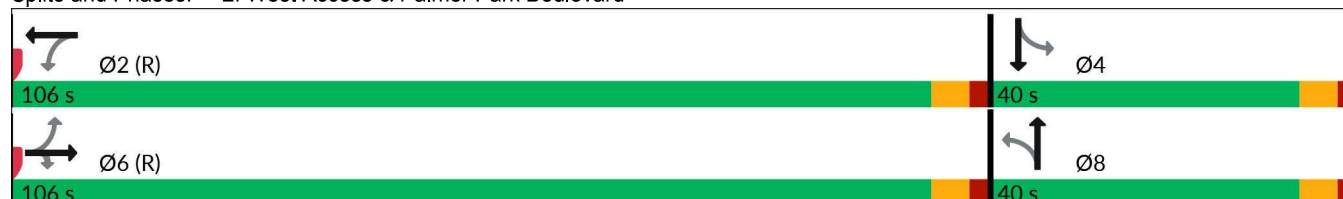
Actuated Cycle Length: 146

Offset: 70 (48%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Splits and Phases: 2: West Access & Palmer Park Boulevard



HCM 7th Signalized Intersection Summary 2: West Access & Palmer Park Boulevard

2046 Background AM
05/20/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	560	158	49	763	8	95	3	48	9	3	16
Future Volume (veh/h)	18	560	158	49	763	8	95	3	48	9	3	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1811	1811	1811	1767	1767	1767
Adj Flow Rate, veh/h	19	583	165	51	795	8	99	3	50	9	3	17
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	2	2	2	6	6	6	9	9	9
Cap, veh/h	563	2879	1284	632	2943	30	170	9	148	138	23	132
Arrive On Green	1.00	1.00	1.00	0.82	0.82	0.82	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	672	3526	1572	713	3604	36	1348	88	1461	1276	230	1302
Grp Volume(v), veh/h	19	583	165	51	392	411	99	0	53	9	0	20
Grp Sat Flow(s),veh/h/ln	672	1763	1572	713	1777	1864	1348	0	1548	1276	0	1532
Q Serve(g_s), s	0.3	0.0	0.0	2.1	7.6	7.6	10.5	0.0	4.7	1.0	0.0	1.7
Cycle Q Clear(g_c), s	7.9	0.0	0.0	2.1	7.6	7.6	12.3	0.0	4.7	5.6	0.0	1.7
Prop In Lane	1.00		1.00	1.00		0.02	1.00		0.94	1.00		0.85
Lane Grp Cap(c), veh/h	563	2879	1284	632	1451	1522	170	0	157	138	0	155
V/C Ratio(X)	0.03	0.20	0.13	0.08	0.27	0.27	0.58	0.00	0.34	0.07	0.00	0.13
Avail Cap(c_a), veh/h	563	2879	1284	632	1451	1522	347	0	361	306	0	357
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.2	0.0	0.0	2.6	3.2	3.2	65.3	0.0	61.1	63.7	0.0	59.7
Incr Delay (d2), s/veh	0.1	0.1	0.2	0.2	0.5	0.4	3.2	0.0	1.3	0.2	0.0	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.1	0.3	2.4	2.5	3.8	0.0	1.9	0.3	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.3	0.1	0.2	2.9	3.6	3.6	68.5	0.0	62.3	63.9	0.0	60.1
LnGrp LOS	A	A	A	A	A	A	E		E	E		E
Approach Vol, veh/h	767			854			152			29		
Approach Delay, s/veh	0.1			3.6			66.3			61.3		
Approach LOS	A			A			E			E		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	125.2			20.8			125.2			20.8		
Change Period (Y+Rc), s	6.0			6.0			6.0			6.0		
Max Green Setting (Gmax), s	100.0			34.0			100.0			34.0		
Max Q Clear Time (g_c+I1), s	9.6			7.6			9.9			14.3		
Green Ext Time (p_c), s	6.3			0.1			5.2			0.5		
Intersection Summary												
HCM 7th Control Delay, s/veh				8.3								
HCM 7th LOS				A								

Timings

2: West Access & Palmer Park Boulevard

2046 Background PM
05/20/2026

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	64	738	119	44	452	136	3	19	6
Future Volume (vph)	64	738	119	44	452	136	3	19	6
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	NA
Protected Phases		6			2		8		4
Permitted Phases	6		6	2		8		4	
Detector Phase	6	6	6	2	2	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	113.0	113.0	113.0	113.0	113.0	33.0	33.0	33.0	33.0
Total Split (%)	77.4%	77.4%	77.4%	77.4%	77.4%	22.6%	22.6%	22.6%	22.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 146

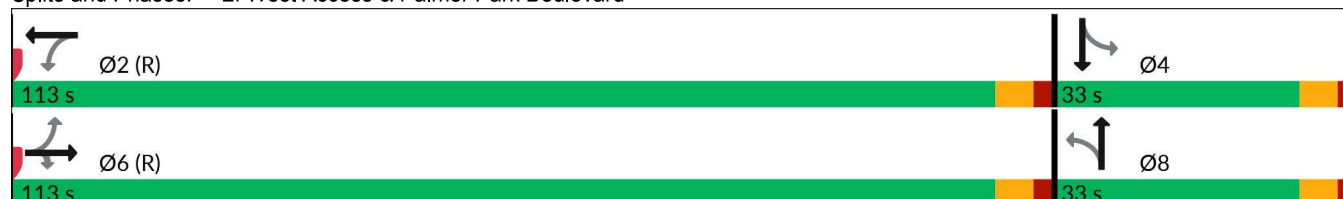
Actuated Cycle Length: 146

Offset: 42 (29%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Splits and Phases: 2: West Access & Palmer Park Boulevard



HCM 7th Signalized Intersection Summary 2: West Access & Palmer Park Boulevard

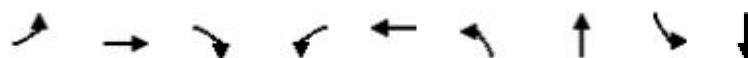
2046 Background PM
05/20/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	738	119	44	452	30	136	3	82	19	6	67
Future Volume (veh/h)	64	738	119	44	452	30	136	3	82	19	6	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	802	129	48	491	33	148	3	89	21	7	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	669	2660	1186	498	2530	170	215	9	261	204	24	248
Arrive On Green	1.00	1.00	1.00	0.75	0.75	0.75	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	878	3554	1585	601	3380	227	1319	52	1541	1304	141	1466
Grp Volume(v), veh/h	70	802	129	48	258	266	148	0	92	21	0	80
Grp Sat Flow(s),veh/h/ln	878	1777	1585	601	1777	1830	1319	0	1593	1304	0	1606
Q Serve(g_s), s	0.8	0.2	0.1	3.2	6.2	6.3	16.1	0.0	7.4	2.1	0.0	6.4
Cycle Q Clear(g_c), s	7.1	0.2	0.1	3.4	6.2	6.3	22.5	0.0	7.4	9.5	0.0	6.4
Prop In Lane	1.00		1.00	1.00		0.12	1.00		0.97	1.00		0.91
Lane Grp Cap(c), veh/h	669	2660	1186	498	1330	1369	215	0	270	204	0	272
V/C Ratio(X)	0.10	0.30	0.11	0.10	0.19	0.19	0.69	0.00	0.34	0.10	0.00	0.29
Avail Cap(c_a), veh/h	669	2660	1186	498	1330	1369	236	0	295	224	0	297
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.48	0.48	0.48	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.3	0.1	0.1	5.1	5.4	5.4	62.8	0.0	53.5	57.7	0.0	53.0
Incr Delay (d2), s/veh	0.2	0.1	0.1	0.4	0.3	0.3	7.3	0.0	0.7	0.2	0.0	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	0.4	2.3	2.3	5.9	0.0	3.1	0.7	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.5	0.2	0.2	5.5	5.7	5.7	70.1	0.0	54.2	57.9	0.0	53.6
LnGrp LOS	A	A	A	A	A	A	E		D	E		D
Approach Vol, veh/h	1001			572			240			101		
Approach Delay, s/veh	0.2			5.7			64.0			54.5		
Approach LOS	A			A			E			D		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	115.3			30.7			115.3			30.7		
Change Period (Y+Rc), s	6.0			6.0			6.0			6.0		
Max Green Setting (Gmax), s	107.0			27.0			107.0			27.0		
Max Q Clear Time (g_c+I1), s	8.3			11.5			9.1			24.5		
Green Ext Time (p_c), s	4.0			0.4			7.8			0.2		
Intersection Summary												
HCM 7th Control Delay, s/veh				12.7								
HCM 7th LOS				B								

Timings

2: West Access & Palmer Park Boulevard

2046 Total AM
05/20/2026



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	18	562	190	54	765	131	3	9	3
Future Volume (vph)	18	562	190	54	765	131	3	9	3
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	NA
Protected Phases		6			2		8		4
Permitted Phases	6		6	2		8		4	
Detector Phase	6	6	6	2	2	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	106.0	106.0	106.0	106.0	106.0	40.0	40.0	40.0	40.0
Total Split (%)	72.6%	72.6%	72.6%	72.6%	72.6%	27.4%	27.4%	27.4%	27.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 146

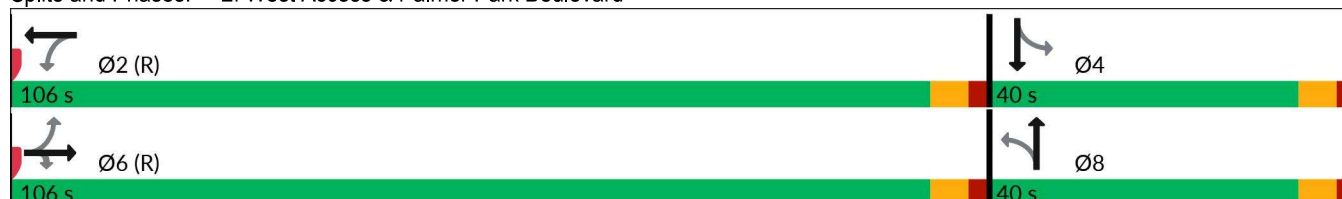
Actuated Cycle Length: 146

Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Splits and Phases: 2: West Access & Palmer Park Boulevard



HCM 7th Signalized Intersection Summary 2: West Access & Palmer Park Boulevard

2046 Total AM
05/20/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	562	190	54	765	8	131	3	53	9	3	16
Future Volume (veh/h)	18	562	190	54	765	8	131	3	53	9	3	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1811	1811	1811	1767	1767	1767
Adj Flow Rate, veh/h	19	585	198	56	797	8	136	3	55	9	3	17
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	2	2	2	6	6	6	9	9	9
Cap, veh/h	539	2783	1241	594	2845	29	207	10	188	169	30	167
Arrive On Green	1.00	1.00	1.00	0.79	0.79	0.79	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	671	3526	1572	691	3605	36	1348	80	1467	1271	230	1302
Grp Volume(v), veh/h	19	585	198	56	393	412	136	0	58	9	0	20
Grp Sat Flow(s),veh/h/ln	671	1763	1572	691	1777	1864	1348	0	1547	1271	0	1532
Q Serve(g_s), s	0.3	0.0	0.0	2.7	8.7	8.7	14.5	0.0	5.0	0.9	0.0	1.7
Cycle Q Clear(g_c), s	9.1	0.0	0.0	2.7	8.7	8.7	16.1	0.0	5.0	5.9	0.0	1.7
Prop In Lane	1.00		1.00	1.00		0.02	1.00		0.95	1.00		0.85
Lane Grp Cap(c), veh/h	539	2783	1241	594	1403	1471	207	0	199	169	0	197
V/C Ratio(X)	0.04	0.21	0.16	0.09	0.28	0.28	0.66	0.00	0.29	0.05	0.00	0.10
Avail Cap(c_a), veh/h	539	2783	1241	594	1403	1471	348	0	360	302	0	357
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.74	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.3	0.0	0.0	3.5	4.2	4.2	63.3	0.0	57.6	60.3	0.0	56.2
Incr Delay (d2), s/veh	0.1	0.1	0.2	0.3	0.5	0.5	3.5	0.0	0.8	0.1	0.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.1	0.4	2.9	3.1	5.2	0.0	2.0	0.3	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.4	0.1	0.2	3.8	4.7	4.6	66.8	0.0	58.4	60.4	0.0	56.4
LnGrp LOS	A	A	A	A	A	A	E		E	E		E
Approach Vol, veh/h	802			861			194			29		
Approach Delay, s/veh	0.2			4.6			64.3			57.6		
Approach LOS	A			A			E			E		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	121.2			24.8			121.2			24.8		
Change Period (Y+Rc), s	6.0			6.0			6.0			6.0		
Max Green Setting (Gmax), s	100.0			34.0			100.0			34.0		
Max Q Clear Time (g_c+I1), s	10.7			7.9			11.1			18.1		
Green Ext Time (p_c), s	6.4			0.1			5.4			0.6		
Intersection Summary												
HCM 7th Control Delay, s/veh				9.7								
HCM 7th LOS				A								

Timings 2: West Access & Palmer Park Boulevard

2046 Total AM #2 NBL PM+PT
05/20/2026

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	18	562	190	54	765	131	3	9	3
Future Volume (vph)	18	562	190	54	765	131	3	9	3
Turn Type	Perm	NA	Perm	Perm	NA	pm+pt	NA	Perm	NA
Protected Phases		6			2	3	8		4
Permitted Phases	6		6	2		8		4	
Detector Phase	6	6	6	2	2	3	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	11.0	24.0	24.0	24.0
Total Split (s)	92.0	92.0	92.0	92.0	92.0	30.0	54.0	24.0	24.0
Total Split (%)	63.0%	63.0%	63.0%	63.0%	63.0%	20.5%	37.0%	16.4%	16.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						Lead		Lag	Lag
Lead-Lag Optimize?						Yes		Yes	Yes
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 146

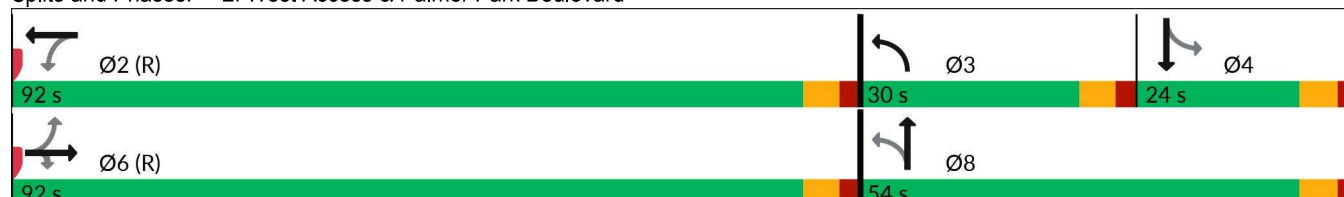
Actuated Cycle Length: 146

Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 2: West Access & Palmer Park Boulevard



HCM 7th Signalized Intersection Summary 2: West Access & Palmer Park Boulevard

2046 Total AM #2 NBL PM+PT
05/20/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	562	190	54	765	8	131	3	53	9	3	16
Future Volume (veh/h)	18	562	190	54	765	8	131	3	53	9	3	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1811	1811	1811	1767	1767	1767
Adj Flow Rate, veh/h	19	585	198	56	797	8	136	3	55	9	3	17
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	2	2	2	6	6	6	9	9	9
Cap, veh/h	509	2660	1186	570	2720	27	230	13	240	92	8	43
Arrive On Green	1.00	1.00	1.00	0.75	0.75	0.75	0.09	0.16	0.16	0.03	0.03	0.03
Sat Flow, veh/h	671	3526	1572	691	3605	36	1725	80	1467	1271	230	1302
Grp Volume(v), veh/h	19	585	198	56	393	412	136	0	58	9	0	20
Grp Sat Flow(s),veh/h/ln	671	1763	1572	691	1777	1864	1725	0	1547	1271	0	1532
Q Serve(g_s), s	0.4	0.0	0.0	3.2	10.2	10.2	10.8	0.0	4.8	1.0	0.0	1.9
Cycle Q Clear(g_c), s	10.6	0.0	0.0	3.2	10.2	10.2	10.8	0.0	4.8	1.0	0.0	1.9
Prop In Lane	1.00		1.00	1.00		0.02	1.00		0.95	1.00		0.85
Lane Grp Cap(c), veh/h	509	2660	1186	570	1341	1406	230	0	253	92	0	51
V/C Ratio(X)	0.04	0.22	0.17	0.10	0.29	0.29	0.59	0.00	0.23	0.10	0.00	0.39
Avail Cap(c_a), veh/h	509	2660	1186	570	1341	1406	360	0	509	206	0	189
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.74	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.5	0.0	0.0	4.8	5.6	5.6	59.2	0.0	53.1	68.7	0.0	69.1
Incr Delay (d2), s/veh	0.1	0.1	0.2	0.3	0.6	0.5	2.4	0.0	0.5	0.5	0.0	4.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.1	0.5	3.7	3.8	4.9	0.0	1.9	0.3	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.6	0.1	0.2	5.1	6.2	6.2	61.6	0.0	53.6	69.2	0.0	74.0
LnGrp LOS	A	A	A	A	A	A	E		D	E		E
Approach Vol, veh/h	802			861			194			29		
Approach Delay, s/veh	0.2			6.1			59.2			72.5		
Approach LOS	A			A			E			E		
Timer - Assigned Phs	2		3	4		6		8				
Phs Duration (G+Y+Rc), s	116.2		19.0	10.9		116.2		29.8				
Change Period (Y+Rc), s	6.0		6.0	6.0		6.0		6.0				
Max Green Setting (Gmax), s	86.0		24.0	18.0		86.0		48.0				
Max Q Clear Time (g_c+I1), s	12.2		12.8	3.9		12.6		6.8				
Green Ext Time (p_c), s	6.4		0.2	0.1		5.4		0.3				
Intersection Summary												
HCM 7th Control Delay, s/veh				10.1								
HCM 7th LOS				B								

Timings

2: West Access & Palmer Park Boulevard

2046 Total PM
05/20/2026

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	64	744	198	56	457	204	3	19	6
Future Volume (vph)	64	744	198	56	457	204	3	19	6
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	NA
Protected Phases		6			2		8		4
Permitted Phases	6		6	2		8		4	
Detector Phase	6	6	6	2	2	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	91.0	91.0	91.0	91.0	91.0	55.0	55.0	55.0	55.0
Total Split (%)	62.3%	62.3%	62.3%	62.3%	62.3%	37.7%	37.7%	37.7%	37.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 146

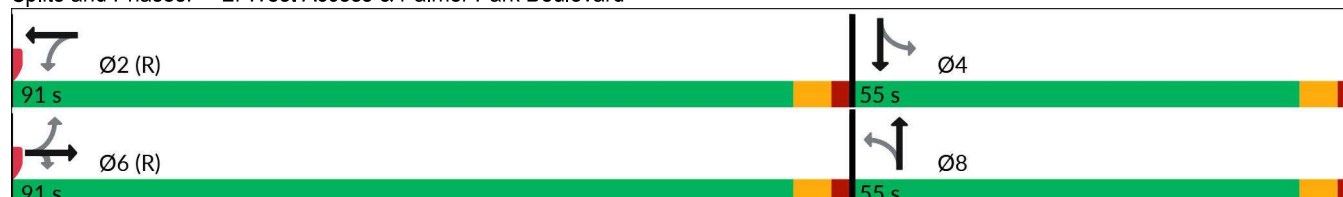
Actuated Cycle Length: 146

Offset: 42 (29%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Splits and Phases: 2: West Access & Palmer Park Boulevard



HCM 7th Signalized Intersection Summary 2: West Access & Palmer Park Boulevard

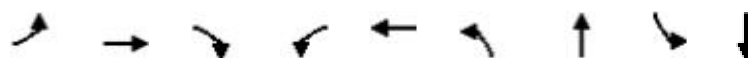
2046 Total PM
05/20/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	744	198	56	457	30	204	3	91	19	6	67
Future Volume (veh/h)	64	744	198	56	457	30	204	3	91	19	6	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	809	215	61	497	33	222	3	99	21	7	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	606	2455	1095	430	2337	155	295	11	351	274	32	333
Arrive On Green	1.00	1.00	1.00	0.69	0.69	0.69	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	874	3554	1585	551	3383	224	1319	47	1545	1293	141	1466
Grp Volume(v), veh/h	70	809	215	61	260	270	222	0	102	21	0	80
Grp Sat Flow(s),veh/h/ln	874	1777	1585	551	1777	1830	1319	0	1592	1293	0	1606
Q Serve(g_s), s	1.0	0.0	0.0	5.6	7.8	7.8	24.0	0.0	7.7	2.0	0.0	5.9
Cycle Q Clear(g_c), s	8.8	0.0	0.0	5.6	7.8	7.8	30.0	0.0	7.7	9.7	0.0	5.9
Prop In Lane	1.00		1.00	1.00		0.12	1.00		0.97	1.00		0.91
Lane Grp Cap(c), veh/h	606	2455	1095	430	1227	1264	295	0	362	274	0	365
V/C Ratio(X)	0.12	0.33	0.20	0.14	0.21	0.21	0.75	0.00	0.28	0.08	0.00	0.22
Avail Cap(c_a), veh/h	606	2455	1095	430	1227	1264	438	0	534	415	0	539
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.36	0.36	0.36	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.3	0.0	0.0	7.9	8.2	8.2	58.1	0.0	46.6	50.6	0.0	45.9
Incr Delay (d2), s/veh	0.1	0.1	0.1	0.7	0.4	0.4	4.0	0.0	0.4	0.1	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.7	3.0	3.1	8.4	0.0	3.1	0.7	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.5	0.1	0.1	8.5	8.6	8.6	62.1	0.0	47.0	50.7	0.0	46.2
LnGrp LOS	A	A	A	A	A	A	E		D	D		D
Approach Vol, veh/h	1094			591			324			101		
Approach Delay, s/veh	0.2			8.6			57.4			47.1		
Approach LOS	A			A			E			D		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	106.8			39.2			106.8			39.2		
Change Period (Y+Rc), s	6.0			6.0			6.0			6.0		
Max Green Setting (Gmax), s	85.0			49.0			85.0			49.0		
Max Q Clear Time (g_c+I1), s	9.8			11.7			10.8			32.0		
Green Ext Time (p_c), s	4.3			0.6			8.4			1.2		
Intersection Summary												
HCM 7th Control Delay, s/veh	13.5											
HCM 7th LOS	B											

Timings

2: West Access & Palmer Park Boulevard

2046 Total PM - #2 NBL PM+PT
05/20/2026



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	64	744	198	56	457	204	3	19	6
Future Volume (vph)	64	744	198	56	457	204	3	19	6
Turn Type	Perm	NA	Perm	Perm	NA	pm+pt	NA	Perm	NA
Protected Phases		6			2	3	8		4
Permitted Phases	6		6	2		8		4	
Detector Phase	6	6	6	2	2	3	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	11.0	24.0	24.0	24.0
Total Split (s)	87.0	87.0	87.0	87.0	87.0	35.0	59.0	24.0	24.0
Total Split (%)	59.6%	59.6%	59.6%	59.6%	59.6%	24.0%	40.4%	16.4%	16.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						Lead		Lag	Lag
Lead-Lag Optimize?						Yes		Yes	Yes
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 146

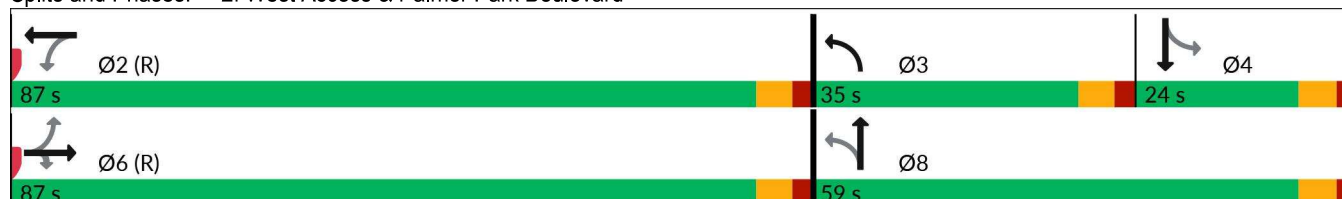
Actuated Cycle Length: 146

Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 2: West Access & Palmer Park Boulevard



HCM 7th Signalized Intersection Summary 2: West Access & Palmer Park Boulevard

2046 Total PM - #2 NBL PM+PT
05/20/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	744	198	56	457	30	204	3	91	19	6	67
Future Volume (veh/h)	64	744	198	56	457	30	204	3	91	19	6	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	809	215	61	497	33	222	3	99	21	7	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	598	2426	1082	425	2309	153	300	11	363	133	9	95
Arrive On Green	1.00	1.00	1.00	0.68	0.68	0.68	0.13	0.24	0.24	0.06	0.06	0.06
Sat Flow, veh/h	874	3554	1585	551	3383	224	1781	47	1545	1293	141	1466
Grp Volume(v), veh/h	70	809	215	61	260	270	222	0	102	21	0	80
Grp Sat Flow(s),veh/h/ln	874	1777	1585	551	1777	1830	1781	0	1592	1293	0	1606
Q Serve(g_s), s	1.1	0.0	0.0	5.8	8.0	8.0	16.5	0.0	7.6	2.3	0.0	7.2
Cycle Q Clear(g_c), s	9.1	0.0	0.0	5.8	8.0	8.0	16.5	0.0	7.6	2.3	0.0	7.2
Prop In Lane	1.00		1.00	1.00		0.12	1.00		0.97	1.00		0.91
Lane Grp Cap(c), veh/h	598	2426	1082	425	1213	1249	300	0	374	133	0	104
V/C Ratio(X)	0.12	0.33	0.20	0.14	0.21	0.22	0.74	0.00	0.27	0.16	0.00	0.77
Avail Cap(c_a), veh/h	598	2426	1082	425	1213	1249	424	0	578	209	0	198
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.36	0.36	0.36	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.4	0.0	0.0	8.3	8.6	8.6	52.7	0.0	45.6	64.9	0.0	67.2
Incr Delay (d2), s/veh	0.1	0.1	0.1	0.7	0.4	0.4	4.2	0.0	0.4	0.6	0.0	11.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.8	3.1	3.2	7.7	0.0	3.1	0.8	0.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.5	0.1	0.1	9.0	9.0	9.0	56.8	0.0	46.0	65.5	0.0	78.7
LnGrp LOS	A	A	A	A	A	A	E		D	E		E
Approach Vol, veh/h	1094			591			324			101		
Approach Delay, s/veh	0.2			9.0			53.4			75.9		
Approach LOS	A			A			D			E		
Timer - Assigned Phs	2		3	4	6			8				
Phs Duration (G+Y+Rc), s	105.7		24.9	15.4	105.7			40.3				
Change Period (Y+Rc), s	6.0		6.0	6.0	6.0			6.0				
Max Green Setting (Gmax), s	81.0		29.0	18.0	81.0			53.0				
Max Q Clear Time (g_c+I1), s	10.0		18.5	9.2	11.1			9.6				
Green Ext Time (p_c), s	4.3		0.5	0.3	8.4			0.7				
Intersection Summary												
HCM 7th Control Delay, s/veh	14.4											
HCM 7th LOS	B											

HCM 7th TWSC

3: East Access & Palmer Park Boulevard

2025 Existing AM
05/20/2026

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑	
Traffic Vol, veh/h	486	2	25	643	6	20
Future Vol, veh/h	486	2	25	643	6	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	3	3	5	5	2	2
Mvmt Flow	546	2	28	722	7	22

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	548	0	965
Stage 1	-	-	-	-	547
Stage 2	-	-	-	-	417
Critical Hdwy	-	-	4.2	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.25	-	3.52
Pot Cap-1 Maneuver	-	-	1158	-	328
Stage 1	-	-	-	-	693
Stage 2	-	-	-	-	633
Platoon blocked, %	-	-	0	-	0
Mov Cap-1 Maneuver	-	-	1158	-	320
Mov Cap-2 Maneuver	-	-	-	-	320
Stage 1	-	-	-	-	693
Stage 2	-	-	-	-	618

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.31	10.72
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	658	-	-	1158	-
HCM Lane V/C Ratio	0.044	-	-	0.024	-
HCM Ctrl Dly (s/v)	10.7	-	-	8.2	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Notes	
~: Volume exceeds capacity	\$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

HCM 7th TWSC

3: East Access & Palmer Park Boulevard

2025 Existing PM
05/20/2026

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑	
Traffic Vol, veh/h	655	9	13	415	2	17
Future Vol, veh/h	655	9	13	415	2	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	3	2	2	2	2
Mvmt Flow	682	9	14	432	2	18

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	692	0	930
Stage 1	-	-	-	-	687
Stage 2	-	-	-	-	243
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	899	-	266
Stage 1	-	-	-	-	461
Stage 2	-	-	-	-	774
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	899	-	262
Mov Cap-2 Maneuver	-	-	-	-	262
Stage 1	-	-	-	-	461
Stage 2	-	-	-	-	763

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.28	11.63
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	562	-	-	899	-
HCM Lane V/C Ratio	0.035	-	-	0.015	-
HCM Ctrl Dly (s/v)	11.6	-	-	9.1	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 7th TWSC

3: East Access & Palmer Park Boulevard

2026 Background AM
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Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑	
Traffic Vol, veh/h	491	2	25	650	6	20
Future Vol, veh/h	491	2	25	650	6	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	3	3	5	5	2	2
Mvmt Flow	552	2	28	730	7	22

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	554	0	974
Stage 1	-	-	-	-	553
Stage 2	-	-	-	-	421
Critical Hdwy	-	-	4.2	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.25	-	3.52
Pot Cap-1 Maneuver	-	-	1152	-	323
Stage 1	-	-	-	-	688
Stage 2	-	-	-	-	630
Platoon blocked, %	-	-	0	-	0
Mov Cap-1 Maneuver	-	-	1152	-	315
Mov Cap-2 Maneuver	-	-	-	-	315
Stage 1	-	-	-	-	688
Stage 2	-	-	-	-	615

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.3	10.77
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	653	-	-	1152	-
HCM Lane V/C Ratio	0.045	-	-	0.024	-
HCM Ctrl Dly (s/v)	10.8	-	-	8.2	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Notes	
~: Volume exceeds capacity	\$. Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

HCM 7th TWSC

3: East Access & Palmer Park Boulevard

2026 Background PM
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Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↱	↑↑	↲	
Traffic Vol, veh/h	662	9	13	420	2	17
Future Vol, veh/h	662	9	13	420	2	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	3	2	2	2	2
Mvmt Flow	690	9	14	438	2	18
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	699	0	940	349
Stage 1	-	-	-	-	694	-
Stage 2	-	-	-	-	246	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	894	-	262	647
Stage 1	-	-	-	-	457	-
Stage 2	-	-	-	-	772	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	894	-	258	647
Mov Cap-2 Maneuver	-	-	-	-	258	-
Stage 1	-	-	-	-	457	-
Stage 2	-	-	-	-	760	-
Approach	EB	WB		NB		
HCM Ctrl Dly, s/v	0	0.27		11.69		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	558	-	-	894	-	
HCM Lane V/C Ratio	0.035	-	-	0.015	-	
HCM Ctrl Dly (s/v)	11.7	-	-	9.1	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

HCM 7th TWSC

3: East Access & Palmer Park Boulevard

2026 Total AM
05/20/2026

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑	
Traffic Vol, veh/h	496	4	27	655	8	22
Future Vol, veh/h	496	4	27	655	8	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	3	3	5	5	2	2
Mvmt Flow	557	4	30	736	9	25

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	562	0	988
Stage 1	-	-	-	-	560
Stage 2	-	-	-	-	429
Critical Hdwy	-	-	4.2	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.25	-	3.52
Pot Cap-1 Maneuver	-	-	1143	-	316
Stage 1	-	-	-	-	682
Stage 2	-	-	-	-	625
Platoon blocked, %	-	-	0	-	0
Mov Cap-1 Maneuver	-	-	1143	-	308
Mov Cap-2 Maneuver	-	-	-	-	308
Stage 1	-	-	-	-	682
Stage 2	-	-	-	-	608

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.33	11.21
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	614	-	-	1143	-
HCM Lane V/C Ratio	0.055	-	-	0.027	-
HCM Ctrl Dly (s/v)	11.2	-	-	8.2	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Notes	
~: Volume exceeds capacity	\$. Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

HCM 7th TWSC

3: East Access & Palmer Park Boulevard

2026 Total PM
05/20/2026

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↱	↑↑	↲	
Traffic Vol, veh/h	671	15	19	432	7	22
Future Vol, veh/h	671	15	19	432	7	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	3	2	2	2	2
Mvmt Flow	699	16	20	450	7	23
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	715	0	971	357
Stage 1	-	-	-	-	707	-
Stage 2	-	-	-	-	265	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	882	-	250	639
Stage 1	-	-	-	-	450	-
Stage 2	-	-	-	-	756	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	882	-	245	639
Mov Cap-2 Maneuver	-	-	-	-	245	-
Stage 1	-	-	-	-	450	-
Stage 2	-	-	-	-	739	-
Approach	EB	WB		NB		
HCM Ctrl Dly, s/v	0	0.39		13.37		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	460	-	-	882	-	
HCM Lane V/C Ratio	0.066	-	-	0.022	-	
HCM Ctrl Dly (s/v)	13.4	-	-	9.2	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-	

HCM 7th TWSC

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Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑	
Traffic Vol, veh/h	614	3	32	812	8	25
Future Vol, veh/h	614	3	32	812	8	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	5	5	2	2
Mvmt Flow	667	3	35	883	9	27

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	671	0	1180
Stage 1	-	-	-	-	669
Stage 2	-	-	-	-	511
Critical Hdwy	-	-	4.2	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.25	-	3.52
Pot Cap-1 Maneuver	-	-	1066	-	243
Stage 1	-	-	-	-	627
Stage 2	-	-	-	-	567
Platoon blocked, %	-	-	0	-	0
Mov Cap-1 Maneuver	-	-	1066	-	235
Mov Cap-2 Maneuver	-	-	-	-	235
Stage 1	-	-	-	-	627
Stage 2	-	-	-	-	549

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.32	12.09
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	544	-	-	1066	-
HCM Lane V/C Ratio	0.066	-	-	0.033	-
HCM Ctrl Dly (s/v)	12.1	-	-	8.5	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Notes	
~: Volume exceeds capacity	\$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

HCM 7th TWSC

3: East Access & Palmer Park Boulevard

2046 Background PM
05/20/2026

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↱	↑↑	↲	
Traffic Vol, veh/h	828	11	16	524	3	21
Future Vol, veh/h	828	11	16	524	3	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	3	2	2	2	2
Mvmt Flow	863	11	17	546	3	22
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	874	0	1174	437
Stage 1	-	-	-	-	868	-
Stage 2	-	-	-	-	306	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	768	-	185	567
Stage 1	-	-	-	-	371	-
Stage 2	-	-	-	-	720	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	768	-	181	567
Mov Cap-2 Maneuver	-	-	-	-	181	-
Stage 1	-	-	-	-	371	-
Stage 2	-	-	-	-	704	-
Approach	EB		WB		NB	
HCM Ctrl Dly, s/v	0		0.29		13.52	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	448	-	-	768	-	
HCM Lane V/C Ratio	0.056	-	-	0.022	-	
HCM Ctrl Dly (s/v)	13.5	-	-	9.8	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-	

HCM 7th TWSC

3: East Access & Palmer Park Boulevard

2046 Total AM
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Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑	
Traffic Vol, veh/h	619	5	34	817	10	27
Future Vol, veh/h	619	5	34	817	10	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	5	5	2	2
Mvmt Flow	673	5	37	888	11	29

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	678	0	1193
Stage 1	-	-	-	-	676
Stage 2	-	-	-	-	518
Critical Hdwy	-	-	4.2	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.25	-	3.52
Pot Cap-1 Maneuver	-	-	1058	-	238
Stage 1	-	-	-	-	621
Stage 2	-	-	-	-	563
Platoon blocked, %	-	-	0	-	0
Mov Cap-1 Maneuver	-	-	1058	-	229
Mov Cap-2 Maneuver	-	-	-	-	229
Stage 1	-	-	-	-	621
Stage 2	-	-	-	-	543

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.34	12.65
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	511	-	-	1058	-
HCM Lane V/C Ratio	0.079	-	-	0.035	-
HCM Ctrl Dly (s/v)	12.7	-	-	8.5	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Notes	
~: Volume exceeds capacity	\$. Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

HCM 7th TWSC

3: East Access & Palmer Park Boulevard

2046 Total PM
05/20/2026

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↱	↑↑	↲	
Traffic Vol, veh/h	837	17	22	536	8	26
Future Vol, veh/h	837	17	22	536	8	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	3	2	2	2	2
Mvmt Flow	872	18	23	558	8	27
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	890	0	1206	445
Stage 1	-	-	-	-	881	-
Stage 2	-	-	-	-	325	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	757	-	176	561
Stage 1	-	-	-	-	366	-
Stage 2	-	-	-	-	705	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	757	-	171	561
Mov Cap-2 Maneuver	-	-	-	-	171	-
Stage 1	-	-	-	-	366	-
Stage 2	-	-	-	-	683	-
Approach	EB		WB		NB	
HCM Ctrl Dly, s/v	0		0.39		15.92	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	365	-	-	757	-	
HCM Lane V/C Ratio	0.097	-	-	0.03	-	
HCM Ctrl Dly (s/v)	15.9	-	-	9.9	-	
HCM Lane LOS	C	-	-	A	-	
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-	

HCM 7th TWSC

4: Powers Boulevard & Omaha Boulevard

2025 Existing AM
05/19/2026

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗↗	↗		↗↗↗
Traffic Vol, veh/h	0	112	1910	98	0	1995
Future Vol, veh/h	0	112	1910	98	0	1995
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Free	-	None
Storage Length	-	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	7	7	4	4	2	2
Mvmt Flow	0	120	2054	105	0	2145

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	-	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	0	-
Stage 1	0	0	-
Stage 2	0	0	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBTWBLn1	SBT
Capacity (veh/h)	-	-
HCM Lane V/C Ratio	-	-
HCM Ctrl Dly (s/v)	-	0
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	-

HCM 7th TWSC

4: Powers Boulevard & Omaha Boulevard

2025 Existing PM
05/19/2026

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗↗	↗		↗↗↗
Traffic Vol, veh/h	0	73	2070	97	0	1751
Future Vol, veh/h	0	73	2070	97	0	1751
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Free	-	None
Storage Length	-	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	76	2156	101	0	1824

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	-	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	0	-
Stage 1	0	0	-
Stage 2	0	0	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBTWBLn1	SBT
Capacity (veh/h)	-	-
HCM Lane V/C Ratio	-	-
HCM Ctrl Dly (s/v)	-	0
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	-

HCM 7th TWSC

4: Powers Boulevard & Omaha Boulevard

2026 Background AM
05/19/2026

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗↗	↗		↗↗↗
Traffic Vol, veh/h	0	113	1931	99	0	2017
Future Vol, veh/h	0	113	1931	99	0	2017
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Free	-	None
Storage Length	-	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	7	7	4	4	2	2
Mvmt Flow	0	122	2076	106	0	2169
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	-	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	-	0	0	-
Stage 1	0	0	-	0	0	-
Stage 2	0	0	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB		NB		SB	
HCM Ctrl Dly, s/v	0		0		0	
HCM LOS	A					
Minor Lane/Major Mvmt	NBTWBLn1		SBT			
Capacity (veh/h)	-		-			
HCM Lane V/C Ratio	-		-			
HCM Ctrl Dly (s/v)	-		0			
HCM Lane LOS	-		A			
HCM 95th %tile Q(veh)	-		-			

HCM 7th TWSC

4: Powers Boulevard & Omaha Boulevard

2026 Background PM
05/19/2026

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗↗	↗		↗↗↗
Traffic Vol, veh/h	0	74	2093	98	0	1771
Future Vol, veh/h	0	74	2093	98	0	1771
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Free	-	None
Storage Length	-	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	77	2180	102	0	1845

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	-	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	0	-
Stage 1	0	0	-
Stage 2	0	0	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBTWBLn1	SBT
Capacity (veh/h)	-	-
HCM Lane V/C Ratio	-	-
HCM Ctrl Dly (s/v)	-	0
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	-

HCM 7th TWSC

4: Powers Boulevard & Omaha Boulevard

2026 Total AM
05/19/2026

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗↗	↗		↗↗↗
Traffic Vol, veh/h	0	113	1941	104	0	2031
Future Vol, veh/h	0	113	1941	104	0	2031
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Free	-	None
Storage Length	-	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	7	7	4	4	2	2
Mvmt Flow	0	122	2087	112	0	2184
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	-	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	-	0	0	-
Stage 1	0	0	-	0	0	-
Stage 2	0	0	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB		NB		SB	
HCM Ctrl Dly, s/v	0		0		0	
HCM LOS	A					
Minor Lane/Major Mvmt	NBTWBLn1		SBT			
Capacity (veh/h)	-		-			
HCM Lane V/C Ratio	-		-			
HCM Ctrl Dly (s/v)	-		0			
HCM Lane LOS	-		A			
HCM 95th %tile Q(veh)	-		-			

HCM 7th TWSC

4: Powers Boulevard & Omaha Boulevard

2026 Total PM
05/19/2026

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗↗	↗		↗↗↗
Traffic Vol, veh/h	0	74	2117	110	0	1798
Future Vol, veh/h	0	74	2117	110	0	1798
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Free	-	None
Storage Length	-	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	77	2205	115	0	1873

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	-	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	0	-
Stage 1	0	0	-
Stage 2	0	0	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBTWBLn1	SBT
Capacity (veh/h)	-	-
HCM Lane V/C Ratio	-	-
HCM Ctrl Dly (s/v)	-	0
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	-

HCM 7th TWSC

4: Powers Boulevard & Omaha Boulevard

2046 Background AM
05/19/2026

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗↗	↗		↗↗↗
Traffic Vol, veh/h	0	142	2413	124	0	2521
Future Vol, veh/h	0	142	2413	124	0	2521
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Free	-	None
Storage Length	-	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	7	7	4	4	2	2
Mvmt Flow	0	153	2595	133	0	2711
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	-	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	-	0	0	-
Stage 1	0	0	-	0	0	-
Stage 2	0	0	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB		NB		SB	
HCM Ctrl Dly, s/v	0		0		0	
HCM LOS	A					
Minor Lane/Major Mvmt	NBTWBLn1		SBT			
Capacity (veh/h)	-		-			
HCM Lane V/C Ratio	-		-			
HCM Ctrl Dly (s/v)	-		0			
HCM Lane LOS	-		A			
HCM 95th %tile Q(veh)	-		-			

HCM 7th TWSC

4: Powers Boulevard & Omaha Boulevard

2046 Background PM
05/19/2026

Intersection

Int Delay, s/veh 0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	92	2615	123	0	2212
Future Vol, veh/h	0	92	2615	123	0	2212
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Free	-	None
Storage Length	-	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	96	2724	128	0	2304

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	-	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	0	-
Stage 1	0	0	-
Stage 2	0	0	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBTWBLn1	SBT
Capacity (veh/h)	-	-
HCM Lane V/C Ratio	-	-
HCM Ctrl Dly (s/v)	-	0
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	-

HCM 7th TWSC

4: Powers Boulevard & Omaha Boulevard

2046 Total AM
05/19/2026

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗↗	↗		↗↗↗
Traffic Vol, veh/h	0	142	2423	129	0	2535
Future Vol, veh/h	0	142	2423	129	0	2535
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Free	-	None
Storage Length	-	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	7	7	4	4	2	2
Mvmt Flow	0	153	2605	139	0	2726

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	-	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	0	-
Stage 1	0	0	-
Stage 2	0	0	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBTWBLn1	SBT
Capacity (veh/h)	-	-
HCM Lane V/C Ratio	-	-
HCM Ctrl Dly (s/v)	-	0
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	-

HCM 7th TWSC

4: Powers Boulevard & Omaha Boulevard

2046 Total PM
05/19/2026

Intersection

Int Delay, s/veh 0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗↗	↗		↗↗↗
Traffic Vol, veh/h	0	92	2639	135	0	2239
Future Vol, veh/h	0	92	2639	135	0	2239
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Free	-	None
Storage Length	-	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	96	2749	141	0	2332

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	-	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	0	-
Stage 1	0	0	-
Stage 2	0	0	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBTWBLn1	SBT
Capacity (veh/h)	-	-
HCM Lane V/C Ratio	-	-
HCM Ctrl Dly (s/v)	-	0
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	-

HCM 7th TWSC

5: South Access & Omaha Boulevard

2025 Existing AM
05/19/2026

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	33	53	16	15	109	22	5	2	8	28	8	8
Future Vol, veh/h	33	53	16	15	109	22	5	2	8	28	8	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	6	6	6	3	3	3	7	7	7	4	4	4
Mvmt Flow	36	58	18	16	120	24	5	2	9	31	9	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	144	0	0	76	0	0	297	316	67	297	313	132
Stage 1	-	-	-	-	-	-	140	140	-	165	165	-
Stage 2	-	-	-	-	-	-	157	177	-	132	148	-
Critical Hdwy	4.16	-	-	4.13	-	-	7.17	6.57	6.27	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.17	5.57	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.17	5.57	-	6.14	5.54	-
Follow-up Hdwy	2.254	-	-	2.227	-	-	3.563	4.063	3.363	3.536	4.036	3.336
Pot Cap-1 Maneuver	1414	-	-	1517	-	-	646	591	983	652	599	912
Stage 1	-	-	-	-	-	-	852	772	-	832	758	-
Stage 2	-	-	-	-	-	-	833	743	-	867	771	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1414	-	-	1517	-	-	607	569	983	619	577	912
Mov Cap-2 Maneuver	-	-	-	-	-	-	607	569	-	619	577	-
Stage 1	-	-	-	-	-	-	830	752	-	823	749	-
Stage 2	-	-	-	-	-	-	806	735	-	835	751	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	2.46			0.76			9.88			11		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	754	1414	-	-	1517	-	-	648
HCM Lane V/C Ratio	0.022	0.026	-	-	0.011	-	-	0.075
HCM Ctrl Dly (s/v)	9.9	7.6	-	-	7.4	-	-	11
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.2

HCM 7th TWSC

5: South Access & Omaha Boulevard

2025 Existing PM
05/19/2026

Intersection												
Int Delay, s/veh	4.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	48	37	11	11	58	27	9	3	26	41	7	10
Future Vol, veh/h	48	37	11	11	58	27	9	3	26	41	7	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	49	38	11	11	60	28	9	3	27	42	7	10
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	88	0	0	49	0	0	229	253	44	235	245	74
Stage 1	-	-	-	-	-	-	143	143	-	96	96	-
Stage 2	-	-	-	-	-	-	86	110	-	139	148	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1508	-	-	1557	-	-	726	650	1026	720	657	988
Stage 1	-	-	-	-	-	-	860	779	-	910	815	-
Stage 2	-	-	-	-	-	-	922	804	-	864	774	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1508	-	-	1557	-	-	682	624	1026	669	631	988
Mov Cap-2 Maneuver	-	-	-	-	-	-	682	624	-	669	631	-
Stage 1	-	-	-	-	-	-	832	753	-	903	809	-
Stage 2	-	-	-	-	-	-	897	798	-	811	749	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	3.73			0.84			9.3			10.59		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	877	1508	-	-	1557	-	-	703				
HCM Lane V/C Ratio	0.045	0.033	-	-	0.007	-	-	0.085				
HCM Ctrl Dly (s/v)	9.3	7.5	-	-	7.3	-	-	10.6				
HCM Lane LOS	A	A	-	-	A	-	-	B				
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.3				

HCM 7th TWSC 5: South Access & Omaha Boulevard

2026 Background AM
05/19/2026

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	33	54	16	15	110	22	5	2	8	28	8	8
Future Vol, veh/h	33	54	16	15	110	22	5	2	8	28	8	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	6	6	6	3	3	3	7	7	7	4	4	4
Mvmt Flow	36	59	18	16	121	24	5	2	9	31	9	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	145	0	0	77	0	0	299	319	68	299	315	133
Stage 1	-	-	-	-	-	-	141	141	-	166	166	-
Stage 2	-	-	-	-	-	-	158	178	-	133	149	-
Critical Hdwy	4.16	-	-	4.13	-	-	7.17	6.57	6.27	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.17	5.57	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.17	5.57	-	6.14	5.54	-
Follow-up Hdwy	2.254	-	-	2.227	-	-	3.563	4.063	3.363	3.536	4.036	3.336
Pot Cap-1 Maneuver	1413	-	-	1515	-	-	644	590	981	649	597	911
Stage 1	-	-	-	-	-	-	850	771	-	831	757	-
Stage 2	-	-	-	-	-	-	832	743	-	866	770	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1413	-	-	1515	-	-	605	568	981	617	575	911
Mov Cap-2 Maneuver	-	-	-	-	-	-	605	568	-	617	575	-
Stage 1	-	-	-	-	-	-	829	751	-	822	748	-
Stage 2	-	-	-	-	-	-	805	734	-	833	750	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	2.44			0.76			9.89			11.02		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	752	1413	-	-	1515	-	-	647
HCM Lane V/C Ratio	0.022	0.026	-	-	0.011	-	-	0.075
HCM Ctrl Dly (s/v)	9.9	7.6	-	-	7.4	-	-	11
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.2

HCM 7th TWSC

5: South Access & Omaha Boulevard

2026 Background PM
05/19/2026

Intersection												
Int Delay, s/veh	4.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	49	37	11	11	59	27	9	3	26	41	7	10
Future Vol, veh/h	49	37	11	11	59	27	9	3	26	41	7	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	51	38	11	11	61	28	9	3	27	42	7	10
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	89	0	0	49	0	0	232	256	44	238	248	75
Stage 1	-	-	-	-	-	-	145	145	-	97	97	-
Stage 2	-	-	-	-	-	-	87	111	-	141	151	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1507	-	-	1557	-	-	723	648	1026	716	655	987
Stage 1	-	-	-	-	-	-	858	777	-	909	814	-
Stage 2	-	-	-	-	-	-	921	803	-	862	773	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1507	-	-	1557	-	-	678	621	1026	666	628	987
Mov Cap-2 Maneuver	-	-	-	-	-	-	678	621	-	666	628	-
Stage 1	-	-	-	-	-	-	829	751	-	902	808	-
Stage 2	-	-	-	-	-	-	896	797	-	808	747	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	3.77			0.83			9.31			10.62		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	875	1507	-	-	1557	-	-	700				
HCM Lane V/C Ratio	0.045	0.034	-	-	0.007	-	-	0.085				
HCM Ctrl Dly (s/v)	9.3	7.5	-	-	7.3	-	-	10.6				
HCM Lane LOS	A	A	-	-	A	-	-	B				
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.3				

HCM 7th TWSC

5: South Access & Omaha Boulevard

2026 Total AM
05/19/2026

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	54	16	15	110	24	5	2	8	30	8	8
Future Vol, veh/h	38	54	16	15	110	24	5	2	8	30	8	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	6	6	6	3	3	3	7	7	7	4	4	4
Mvmt Flow	42	59	18	16	121	26	5	2	9	33	9	9
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	147	0	0	77	0	0	310	332	68	311	327	134
Stage 1	-	-	-	-	-	-	152	152	-	167	167	-
Stage 2	-	-	-	-	-	-	158	180	-	144	160	-
Critical Hdwy	4.16	-	-	4.13	-	-	7.17	6.57	6.27	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.17	5.57	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.17	5.57	-	6.14	5.54	-
Follow-up Hdwy	2.254	-	-	2.227	-	-	3.563	4.063	3.363	3.536	4.036	3.336
Pot Cap-1 Maneuver	1410	-	-	1515	-	-	633	580	981	638	588	910
Stage 1	-	-	-	-	-	-	839	762	-	830	756	-
Stage 2	-	-	-	-	-	-	832	741	-	854	761	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1410	-	-	1515	-	-	592	556	981	604	564	910
Mov Cap-2 Maneuver	-	-	-	-	-	-	592	556	-	604	564	-
Stage 1	-	-	-	-	-	-	814	740	-	820	747	-
Stage 2	-	-	-	-	-	-	805	732	-	819	739	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	2.68			0.75			9.96			11.18		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	743	1410	-	-	1515	-	-	633				
HCM Lane V/C Ratio	0.022	0.03	-	-	0.011	-	-	0.08				
HCM Ctrl Dly (s/v)	10	7.6	-	-	7.4	-	-	11.2				
HCM Lane LOS	A	A	-	-	A	-	-	B				
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.3				

HCM 7th TWSC

5: South Access & Omaha Boulevard

2026 Total PM
05/19/2026

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	61	37	11	11	59	33	9	3	26	46	7	10
Future Vol, veh/h	61	37	11	11	59	33	9	3	26	46	7	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	63	38	11	11	61	34	9	3	27	47	7	10
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	95	0	0	49	0	0	257	287	44	266	276	78
Stage 1	-	-	-	-	-	-	170	170	-	101	101	-
Stage 2	-	-	-	-	-	-	87	118	-	165	175	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1499	-	-	1557	-	-	696	623	1026	687	632	983
Stage 1	-	-	-	-	-	-	832	758	-	906	812	-
Stage 2	-	-	-	-	-	-	921	798	-	837	754	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1499	-	-	1557	-	-	648	592	1026	633	601	983
Mov Cap-2 Maneuver	-	-	-	-	-	-	648	592	-	633	601	-
Stage 1	-	-	-	-	-	-	797	726	-	899	806	-
Stage 2	-	-	-	-	-	-	896	792	-	777	722	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	4.2			0.78			9.4			10.99		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	858	1499	-	-	1557	-	-	666				
HCM Lane V/C Ratio	0.046	0.042	-	-	0.007	-	-	0.097				
HCM Ctrl Dly (s/v)	9.4	7.5	-	-	7.3	-	-	11				
HCM Lane LOS	A	A	-	-	A	-	-	B				
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.3				

HCM 7th TWSC

5: South Access & Omaha Boulevard

2046 Background AM
05/19/2026

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	42	67	20	19	138	28	6	3	10	35	10	10
Future Vol, veh/h	42	67	20	19	138	28	6	3	10	35	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	6	6	6	3	3	3	7	7	7	4	4	4
Mvmt Flow	46	74	22	21	152	31	7	3	11	38	11	11
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	182	0	0	96	0	0	376	401	85	376	397	167
Stage 1	-	-	-	-	-	-	177	177	-	209	209	-
Stage 2	-	-	-	-	-	-	199	224	-	168	188	-
Critical Hdwy	4.16	-	-	4.13	-	-	7.17	6.57	6.27	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.17	5.57	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.17	5.57	-	6.14	5.54	-
Follow-up Hdwy	2.254	-	-	2.227	-	-	3.563	4.063	3.363	3.536	4.036	3.336
Pot Cap-1 Maneuver	1369	-	-	1492	-	-	572	530	961	577	537	872
Stage 1	-	-	-	-	-	-	813	743	-	789	726	-
Stage 2	-	-	-	-	-	-	792	709	-	830	741	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1369	-	-	1492	-	-	527	504	961	539	511	872
Mov Cap-2 Maneuver	-	-	-	-	-	-	527	504	-	539	511	-
Stage 1	-	-	-	-	-	-	786	718	-	776	714	-
Stage 2	-	-	-	-	-	-	758	698	-	789	716	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	2.51			0.76			10.42			12.02		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	685	1369	-	-	1492	-	-	573				
HCM Lane V/C Ratio	0.031	0.034	-	-	0.014	-	-	0.105				
HCM Ctrl Dly (s/v)	10.4	7.7	-	-	7.4	-	-	12				
HCM Lane LOS	B	A	-	-	A	-	-	B				
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.4				

HCM 7th TWSC 5: South Access & Omaha Boulevard

2046 Background PM
05/19/2026

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	61	47	14	14	73	34	11	4	33	52	9	13
Future Vol, veh/h	61	47	14	14	73	34	11	4	33	52	9	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	63	48	14	14	75	35	11	4	34	54	9	13
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	110	0	0	63	0	0	290	321	56	298	310	93
Stage 1	-	-	-	-	-	-	181	181	-	122	122	-
Stage 2	-	-	-	-	-	-	109	139	-	176	189	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1480	-	-	1540	-	-	662	596	1011	654	604	964
Stage 1	-	-	-	-	-	-	820	749	-	883	795	-
Stage 2	-	-	-	-	-	-	897	781	-	826	744	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1480	-	-	1540	-	-	609	565	1011	595	573	964
Mov Cap-2 Maneuver	-	-	-	-	-	-	609	565	-	595	573	-
Stage 1	-	-	-	-	-	-	785	718	-	874	787	-
Stage 2	-	-	-	-	-	-	865	774	-	759	712	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	3.77			0.85			9.61			11.44		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	831	1480	-	-	1540	-	-	635				
HCM Lane V/C Ratio	0.06	0.042	-	-	0.009	-	-	0.12				
HCM Ctrl Dly (s/v)	9.6	7.5	-	-	7.4	-	-	11.4				
HCM Lane LOS	A	A	-	-	A	-	-	B				
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.4				

HCM 7th TWSC

5: South Access & Omaha Boulevard

2046 Total AM
05/19/2026

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	67	20	19	138	30	6	3	10	37	10	10
Future Vol, veh/h	47	67	20	19	138	30	6	3	10	37	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	6	6	6	3	3	3	7	7	7	4	4	4
Mvmt Flow	52	74	22	21	152	33	7	3	11	41	11	11
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	185	0	0	96	0	0	387	414	85	388	409	168
Stage 1	-	-	-	-	-	-	188	188	-	210	210	-
Stage 2	-	-	-	-	-	-	199	226	-	179	199	-
Critical Hdwy	4.16	-	-	4.13	-	-	7.17	6.57	6.27	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.17	5.57	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.17	5.57	-	6.14	5.54	-
Follow-up Hdwy	2.254	-	-	2.227	-	-	3.563	4.063	3.363	3.536	4.036	3.336
Pot Cap-1 Maneuver	1366	-	-	1492	-	-	563	521	961	567	529	871
Stage 1	-	-	-	-	-	-	802	735	-	788	725	-
Stage 2	-	-	-	-	-	-	792	707	-	819	733	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1366	-	-	1492	-	-	515	493	961	527	501	871
Mov Cap-2 Maneuver	-	-	-	-	-	-	515	493	-	527	501	-
Stage 1	-	-	-	-	-	-	772	707	-	775	713	-
Stage 2	-	-	-	-	-	-	757	696	-	775	705	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	2.71			0.76			10.5			12.22		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	675	1366	-	-	1492	-	-	561				
HCM Lane V/C Ratio	0.031	0.038	-	-	0.014	-	-	0.112				
HCM Ctrl Dly (s/v)	10.5	7.7	-	-	7.4	-	-	12.2				
HCM Lane LOS	B	A	-	-	A	-	-	B				
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.4				

HCM 7th TWSC

5: South Access & Omaha Boulevard

2046 Total PM
05/19/2026

Intersection												
Int Delay, s/veh	5.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	73	47	14	14	73	40	11	4	33	57	9	13
Future Vol, veh/h	73	47	14	14	73	40	11	4	33	57	9	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	75	48	14	14	75	41	11	4	34	59	9	13
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	116	0	0	63	0	0	315	352	56	326	338	96
Stage 1	-	-	-	-	-	-	206	206	-	125	125	-
Stage 2	-	-	-	-	-	-	109	145	-	201	213	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1472	-	-	1540	-	-	638	573	1011	627	583	961
Stage 1	-	-	-	-	-	-	796	731	-	879	793	-
Stage 2	-	-	-	-	-	-	897	777	-	801	726	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1472	-	-	1540	-	-	581	538	1011	565	548	961
Mov Cap-2 Maneuver	-	-	-	-	-	-	581	538	-	565	548	-
Stage 1	-	-	-	-	-	-	755	694	-	870	785	-
Stage 2	-	-	-	-	-	-	865	769	-	730	689	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	4.13			0.81			9.71			11.89		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	814	1472	-	-	1540	-	-	604				
HCM Lane V/C Ratio	0.061	0.051	-	-	0.009	-	-	0.135				
HCM Ctrl Dly (s/v)	9.7	7.6	-	-	7.4	-	-	11.9				
HCM Lane LOS	A	A	-	-	A	-	-	B				
HCM 95th %tile Q(veh)	0.2	0.2	-	-	0	-	-	0.5				

Appendix F: Queue Analysis Worksheets

Queues

2026 Total AM

1: Powers Boulevard & Palmer Park Boulevard

05/20/2026



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	202	233	66	216	380	197	137	1829	233	209	1998	249
v/c Ratio	0.67	0.65	0.04	0.68	1.00	0.12	0.56	0.69	0.26	0.64	0.69	0.16
Control Delay (s/veh)	75.7	72.4	0.0	68.5	104.6	0.2	74.1	27.7	4.8	72.8	24.3	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	75.7	72.4	0.0	68.5	104.6	0.2	74.1	27.7	4.8	72.8	24.3	0.2
Queue Length 50th (ft)	98	116	0	87	~216	0	68	479	19	102	491	0
Queue Length 95th (ft)	142	166	0	134	#331	0	106	555	66	144	553	0
Internal Link Dist (ft)		732			365			832			1195	
Turn Bay Length (ft)	300		175	130		50	900			825		
Base Capacity (vph)	329	361	1583	352	379	1583	276	2635	911	387	2884	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.65	0.04	0.61	1.00	0.12	0.50	0.69	0.26	0.54	0.69	0.16

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

2026 Total PM

1: Powers Boulevard & Palmer Park Boulevard

05/20/2026



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	303	445	170	179	282	131	157	1880	223	246	1530	422
v/c Ratio	0.74	0.89	0.11	0.64	0.78	0.08	0.58	0.72	0.25	0.84	0.56	0.27
Control Delay (s/veh)	72.8	82.6	0.1	74.9	68.7	0.1	73.7	30.0	5.5	90.2	24.0	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	72.8	82.6	0.1	74.9	68.7	0.1	73.7	30.0	5.5	90.2	24.0	0.4
Queue Length 50th (ft)	147	225	0	77	121	0	76	512	22	122	359	0
Queue Length 95th (ft)	197	#323	0	125	#225	0	115	572	69	#196	412	0
Internal Link Dist (ft)		719			365			832			1195	
Turn Bay Length (ft)	300		175	130		50	900			825		
Base Capacity (vph)	470	504	1583	305	362	1583	305	2595	894	293	2717	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.88	0.11	0.59	0.78	0.08	0.51	0.72	0.25	0.84	0.56	0.27

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

2046 Total AM

1: Powers Boulevard & Palmer Park Boulevard

05/20/2026



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	252	288	83	266	473	241	172	2285	288	257	2497	311
v/c Ratio	0.79	0.85	0.05	0.78	1.31	0.15	0.66	0.88	0.32	0.73	0.87	0.20
Control Delay (s/veh)	82.5	86.9	0.1	80.1	208.6	0.2	78.1	36.4	7.7	75.6	31.9	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	82.5	86.9	0.1	80.1	208.6	0.2	78.1	36.4	7.7	75.6	31.9	0.3
Queue Length 50th (ft)	124	147	0	132	~316	0	85	721	48	125	742	0
Queue Length 95th (ft)	#185	#232	0	#189	#438	0	128	801	110	174	814	0
Internal Link Dist (ft)		732			365			832			1195	
Turn Bay Length (ft)	300		175	130		50	900			825		
Base Capacity (vph)	329	340	1583	352	361	1583	276	2593	898	387	2862	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.85	0.05	0.76	1.31	0.15	0.62	0.88	0.32	0.66	0.87	0.20

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

2046 Total PM

1: Powers Boulevard & Palmer Park Boulevard

05/20/2026



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	379	549	212	216	348	157	196	2349	272	299	1912	526
v/c Ratio	0.84	1.08	0.13	0.74	1.01	0.10	0.69	0.92	0.31	1.02	0.72	0.33
Control Delay (s/veh)	78.8	120.3	0.2	80.9	104.5	0.1	77.6	40.4	8.3	122.1	28.7	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	78.8	120.3	0.2	80.9	104.5	0.1	77.6	40.4	8.3	122.1	28.7	0.6
Queue Length 50th (ft)	186	~316	0	103	~197	0	95	750	50	~157	510	0
Queue Length 95th (ft)	#257	#440	0	151	#288	0	140	826	108	#257	569	0
Internal Link Dist (ft)		719			365			832			1195	
Turn Bay Length (ft)	300		175	130		50	900			825		
Base Capacity (vph)	470	508	1583	305	346	1583	305	2559	882	293	2657	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	1.08	0.13	0.71	1.01	0.10	0.64	0.92	0.31	1.02	0.72	0.33

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

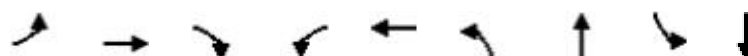
Queue shown is maximum after two cycles.

Queues

2026 Total AM

2: West Access & Palmer Park Boulevard

05/20/2026



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	15	469	165	46	645	117	47	7	16
v/c Ratio	0.03	0.17	0.13	0.06	0.23	0.71	0.21	0.04	0.08
Control Delay (s/veh)	1.6	1.4	0.2	4.4	4.4	82.8	17.1	53.1	24.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	1.6	1.4	0.2	4.4	4.4	82.8	17.1	53.1	24.7
Queue Length 50th (ft)	1	15	0	8	70	114	2	6	2
Queue Length 95th (ft)	m3	25	0	23	115	179	41	23	26
Internal Link Dist (ft)		365			230		408		204
Turn Bay Length (ft)	100			175		75		75	
Base Capacity (vph)	589	2782	1278	714	2807	311	391	294	363
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.17	0.13	0.06	0.23	0.38	0.12	0.02	0.04

Intersection Summary

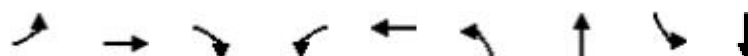
m Volume for 95th percentile queue is metered by upstream signal.

Queues

2026 Total PM

2: West Access & Palmer Park Boulevard

05/20/2026



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	57	649	189	51	425	192	84	16	64
v/c Ratio	0.08	0.25	0.16	0.09	0.16	0.80	0.24	0.07	0.19
Control Delay (s/veh)	1.6	1.7	0.2	7.3	6.4	79.8	10.9	46.4	13.3
Queue Delay	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	1.6	2.2	0.2	7.3	6.4	79.8	10.9	46.4	13.3
Queue Length 50th (ft)	3	18	0	13	56	180	2	13	4
Queue Length 95th (ft)	m4	m22	m0	33	95	255	47	33	44
Internal Link Dist (ft)		365			230		425		204
Turn Bay Length (ft)	100			175				75	
Base Capacity (vph)	692	2608	1216	540	2586	364	495	358	482
Starvation Cap Reductn	0	1435	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.55	0.16	0.09	0.16	0.53	0.17	0.04	0.13

Intersection Summary

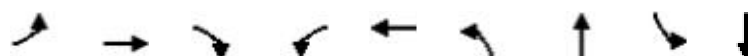
m Volume for 95th percentile queue is metered by upstream signal.

Queues

2046 Total AM

2: West Access & Palmer Park Boulevard

05/20/2026



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	19	585	198	56	805	136	58	9	20
v/c Ratio	0.04	0.21	0.16	0.09	0.29	0.74	0.22	0.05	0.09
Control Delay (s/veh)	11.4	11.8	6.6	5.1	5.3	82.5	15.3	51.3	23.4
Queue Delay	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	11.4	12.2	6.6	5.1	5.3	82.5	15.3	51.3	23.4
Queue Length 50th (ft)	8	154	43	11	101	132	3	8	3
Queue Length 95th (ft)	m17	m222	m87	29	160	201	45	27	29
Internal Link Dist (ft)		365			230		408		204
Turn Bay Length (ft)	100			175		75		75	
Base Capacity (vph)	483	2731	1265	622	2756	310	400	291	367
Starvation Cap Reductn	0	1576	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.51	0.16	0.09	0.29	0.44	0.15	0.03	0.05

Intersection Summary

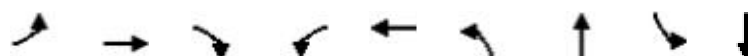
m Volume for 95th percentile queue is metered by upstream signal.

Queues

2046 Total AM #2 NBL PM+PT

2: West Access & Palmer Park Boulevard

05/20/2026



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	19	585	198	56	805	136	58	9	20
v/c Ratio	0.04	0.22	0.16	0.09	0.30	0.61	0.19	0.13	0.23
Control Delay (s/veh)	18.8	20.5	12.7	7.2	7.2	64.5	13.1	69.9	36.3
Queue Delay	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	18.8	21.0	12.7	7.2	7.2	64.5	13.1	69.9	36.3
Queue Length 50th (ft)	14	255	102	15	132	120	3	9	3
Queue Length 95th (ft)	m25	m321	m144	36	197	179	42	31	34
Internal Link Dist (ft)		365			230		408		204
Turn Bay Length (ft)	100			175		75		75	
Base Capacity (vph)	456	2637	1228	594	2660	302	542	191	202
Starvation Cap Reductn	0	1518	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.52	0.16	0.09	0.30	0.45	0.11	0.05	0.10

Intersection Summary

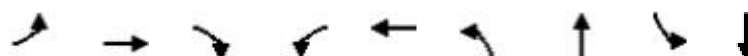
m Volume for 95th percentile queue is metered by upstream signal.

Queues

2046 Total PM

2: West Access & Palmer Park Boulevard

05/20/2026



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	70	809	215	61	530	222	102	21	80
v/c Ratio	0.12	0.32	0.18	0.14	0.21	0.81	0.25	0.08	0.20
Control Delay (s/veh)	1.9	2.0	0.2	9.6	8.2	76.3	9.3	43.1	11.4
Queue Delay	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	1.9	2.6	0.2	9.6	8.2	76.3	9.3	43.1	11.4
Queue Length 50th (ft)	4	25	0	17	83	207	2	17	5
Queue Length 95th (ft)	m5	m28	m0	47	137	282	49	38	47
Internal Link Dist (ft)		365			230		425		204
Turn Bay Length (ft)	100			175				75	
Base Capacity (vph)	590	2509	1184	425	2488	440	599	418	588
Starvation Cap Reductn	0	1252	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.64	0.18	0.14	0.21	0.50	0.17	0.05	0.14

Intersection Summary

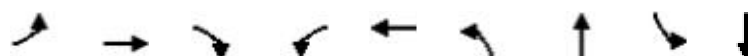
m Volume for 95th percentile queue is metered by upstream signal.

Queues

2046 Total PM - #2 NBL PM+PT

2: West Access & Palmer Park Boulevard

05/20/2026



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	70	809	215	61	530	222	102	21	80
v/c Ratio	0.13	0.34	0.19	0.15	0.22	0.67	0.22	0.30	0.51
Control Delay (s/veh)	4.9	4.4	0.3	11.5	10.0	57.1	8.4	75.9	27.7
Queue Delay	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	4.9	4.8	0.3	11.5	10.0	57.1	8.4	75.9	27.7
Queue Length 50th (ft)	8	52	0	20	94	187	2	20	7
Queue Length 95th (ft)	m13	m69	m1	51	149	251	47	49	62
Internal Link Dist (ft)		365			230		425		204
Turn Bay Length (ft)	100			175				75	
Base Capacity (vph)	554	2383	1136	395	2364	386	640	158	262
Starvation Cap Reductn	0	1006	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.59	0.19	0.15	0.22	0.58	0.16	0.13	0.31

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Appendix G: CDOT Crash Data

[illegible]

