



Traffic Impact Study

0 Argentia Road, Proposed Industrial Development

March 2026 | Project # 100658
Prologis





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1 INTRODUCTION

1.1 Scope and Objective

T.Y. Lin International Canada Inc. (TYLin) was retained by Prologis to complete a Traffic Impact Study (TIS) in support of the proposed industrial development at 0 Argentia Road in the City of Mississauga, within the Region of Peel. The proposed development consists of two industrial warehouse buildings with gross floor areas of 26,832 m² and 30,503 m², totaling 57,326 m².

The purpose of this study is to evaluate the potential transportation impacts associated with the proposed industrial development on lands that were previously contemplated as part of a larger development block but are now being advanced independently due to a planned severance of the parcel between the data center and the industrial building. This Transportation Impact Study (TIS) focuses exclusively on the industrial component of the site. All trip generation estimates, traffic forecasts, and operational assessments presented herein are based solely on the proposed industrial land use. The study ensures that the revised site configuration complies with applicable municipal, regional, and provincial standards. The specific objectives are to:

- ▶ Determine the anticipated traffic volumes generated by the proposed development during the weekday AM and PM peak periods.
- ▶ Assess the impacts of the site-generated traffic on the existing and future roadway network for the 2032 and 2037 horizon years.
- ▶ Confirm that the site plan, access configuration, and on-site circulation meet the applicable City of Mississauga and Region of Peel standards, as well as the Transportation Association of Canada (TAC) guidelines, including:
 - AutoTURN vehicle maneuvering analysis for passenger vehicles, emergency service vehicles, waste collection vehicles, and WB-20 tractor-semitrailers.
- ▶ Prepare a Transportation Demand Management (TDM) Plan in alignment with the City of Mississauga's sustainable transportation objectives.
- ▶ Conduct a parking and loading review to confirm that site provisions meet the City's Zoning By-law requirements.

A detailed scope of work was submitted by TYLin to the City of Mississauga, the Region of Peel, and the Ontario Ministry of Transportation (MTO) for review and comment. The approved pre-consultation checklist and the City of Mississauga's certification form are provided in **Appendix A**.

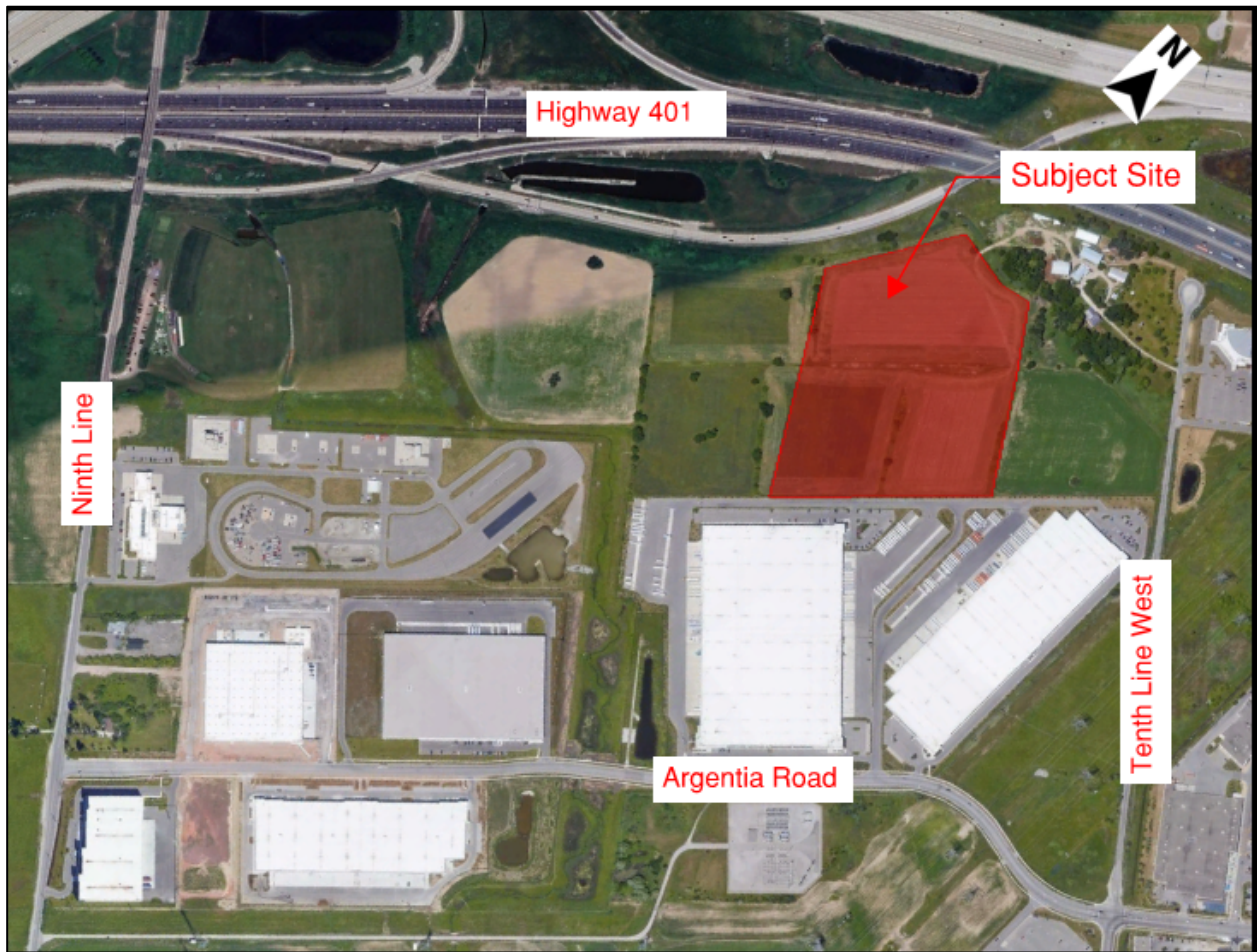
2 SITE CHARACTERISTICS

2.1 Study Environment

The subject site is located within the City of Mississauga, the Region of Peel, on the southwest side of Tenth Line West, northeast of Ninth Line, north of Argentia Road, and south of Highways 401 and 407. The latest iteration of the site plan includes two blocks of industrial development with total ground floor area (GFA) of 57,326 m².

The site plan will include one access from Argentia Road entering directly to industrial development. A total of 496 parking spaces is proposed, including 16 accessible spaces and 42 electric vehicle (EV) spaces. The proposed development site and surrounding road network are illustrated in **Figure 2-1**.

Figure 2-1 Site Location



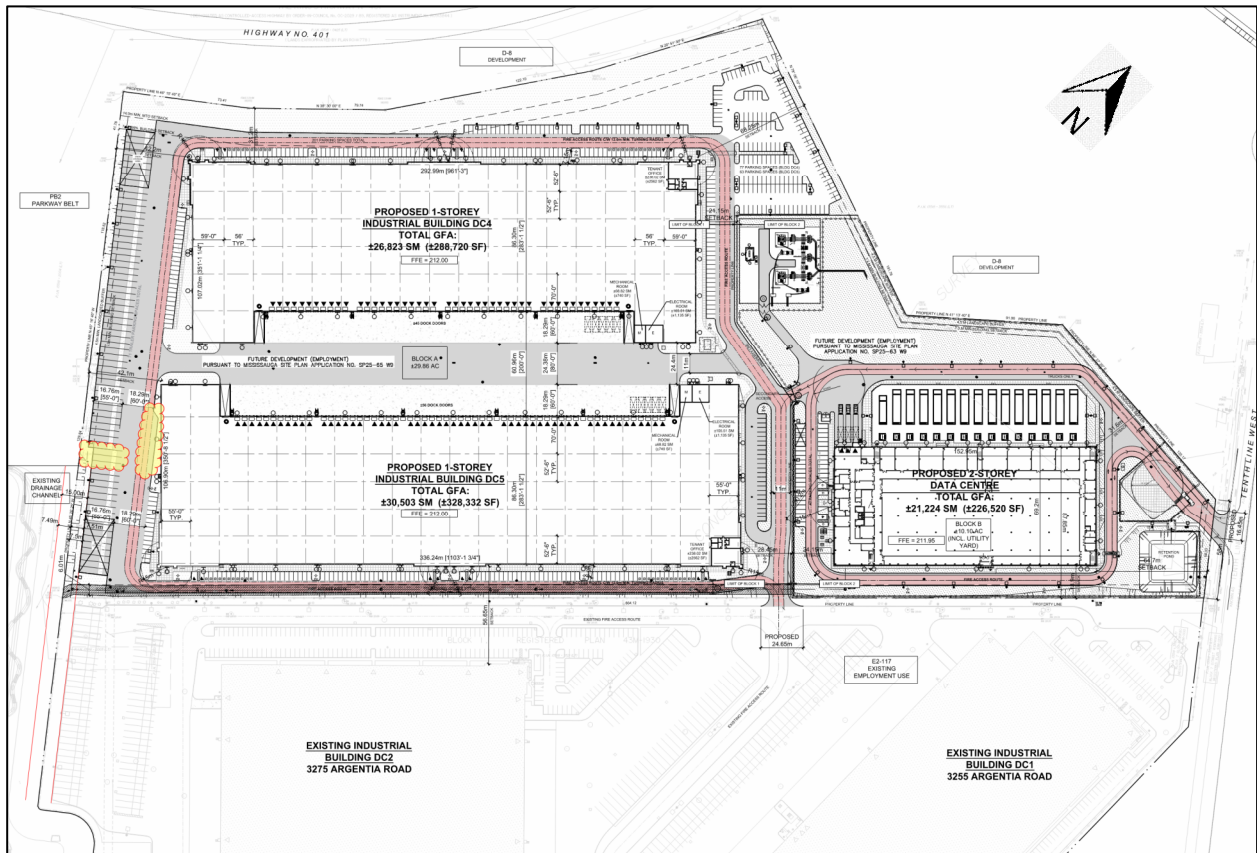
Source: Google Earth

2.2 Development Context

The proposed industrial site has a total site area of 345,112 m², with a building GFA of 57,326 m² (26,823 m² for building DC4 and 30,503 m² for building DC5).

The proposed draft site plan, showing the development layout and access points, is illustrated in **Figure 2-2**. The full site plan is provided in **Appendix B**.

Figure 2-2 Site Plan



2.3 Study Area Intersections

The following intersections have been included in the study area:

Existing Intersections

- ▶ Winston Churchill Boulevard & Highway 401 Eastbound Ramp Terminal (Signalized)
- ▶ Winston Churchill Boulevard & Highway 401 Westbound Ramp Terminal (Signalized)
- ▶ Winston Churchill Boulevard & Argentia Road (Signalized)
- ▶ Derry Road & Highway 407 Northbound Ramp Terminal (Signalized)
- ▶ Derry Road & Highway 407 Southbound Ramp Terminal (Signalized)
- ▶ Argentia Road & Winston Churchill Boulevard (Signalized)
- ▶ Tenth Line West & Argentia Road (Signalized)
- ▶ Ninth Line & Argentia Road (Signalized)

Future Intersections

- ▶ Tenth line West & Site Access (Unsignalized)
- ▶ Argentia Road and South Site Access (Unsignalized)

3 EXISTING CONDITIONS

3.1 Road Network

The following describes the existing road network within the study area.

- ▶ **Argentia Road:** is a major collector road under the jurisdiction of the City of Mississauga. Within the study area, it has a three-lane cross section consisting of one travel lane in each direction and a continuous center two-way left-turn lane between the intersections of Argentia Rd/Nineth Line and Argentia Rd/Tenth Line West. The roadway includes dedicated bike lanes on both sides, sidewalks on both sides, and has a posted speed limit of 60 km/h.
- ▶ **Tenth Line West:** is a north-south major collector road under the jurisdiction of the City of Mississauga. North of the Argentia Road intersection, it ends at a cul-de-sac at Highway 401. Within this area (North of Argentia Road), Tenth Line West is a two-lane undivided roadway with no posted speed limit. According to the Ontario Highway Traffic Act, the default speed limit of 50 km/h applies where no speed limit is posted. There are no sidewalks, bike lanes, or shoulders in this section. South of Argentia Road, Tenth Line West transitions to a two-lane undivided roadway with sidewalks and bike lanes on both sides. The posted speed limit in this section is 50 km/h.
- ▶ **Ninth Line:** is a north-south major arterial road under the jurisdiction of the City of Mississauga, located east of Highway 407. Within the study area, it has a two-lane undivided cross-section including unpaved shoulders and no sidewalks or bike lanes. The road transitions to a paved surface at the highway overpasses crossing Highways 401 and 407, north of the study area. The roadway has a posted speed limit of 60 km/h near its intersection with Argentia Road.
- ▶ **Derry Road West:** is an east-west major arterial road under the jurisdiction of Peel Region and designated as Regional Road 5. Within the study area, it is a four-lane roadway with multi-use paths and sidewalks on both sides. The posted speed limit along Derry Road West is 60 kilometers per hour.
- ▶ **Winston Churchill Boulevard:** is a major arterial road under the jurisdiction of Peel Region and designated as Regional Road 19. It is a six-lane roadway with a posted speed limit of 60 kilometers per hour. Within the study area, it has a center median to separate opposing traffic. North of the intersection between it and Argentia Rd, there are no bike

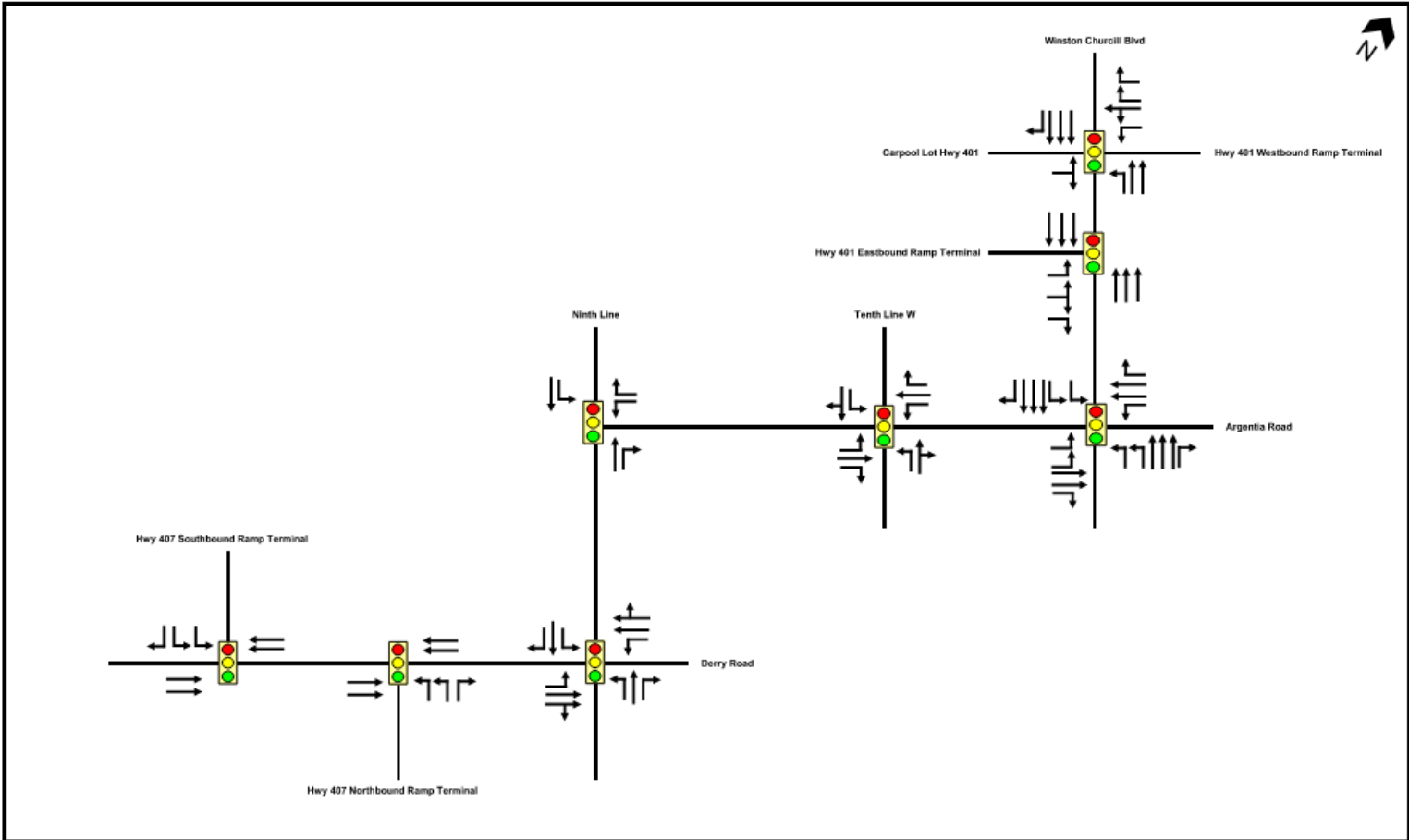
lanes and sidewalks only present on the western side for a short duration. South of the intersection, there are sidewalks and multi-use paths on either side of the road.

- ▶ **Highway 401:** is a provincial freeway under the jurisdiction of the Ministry of Transportation of Ontario (MTO). Within the study area, there are two on-ramps from Winston Churchill Boulevard providing access to eastbound Highway 401, and two on-ramps providing access to westbound Highway 401. Additionally, there is one off-ramp from eastbound Highway 401 and one off-ramp from westbound Highway 401, both connecting to Winston Churchill Boulevard.
- ▶ **Highway 407:** is a privately tolled highway under the jurisdiction of 407 ETR Concession Company Limited. Within the study area, there are two on-ramps from Derry Road providing access to northbound Highway 407, and two on-ramps providing access to southbound Highway 407. Additionally, there is one off-ramp from eastbound Highway 407 and one off-ramp from westbound Highway 407, both providing access to Derry Road.

A lane configuration diagram is provided in **Figure 3-1**.

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Figure 3-1 Existing Lane Configuration



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Figure 3-1

Existing Lane Configuration

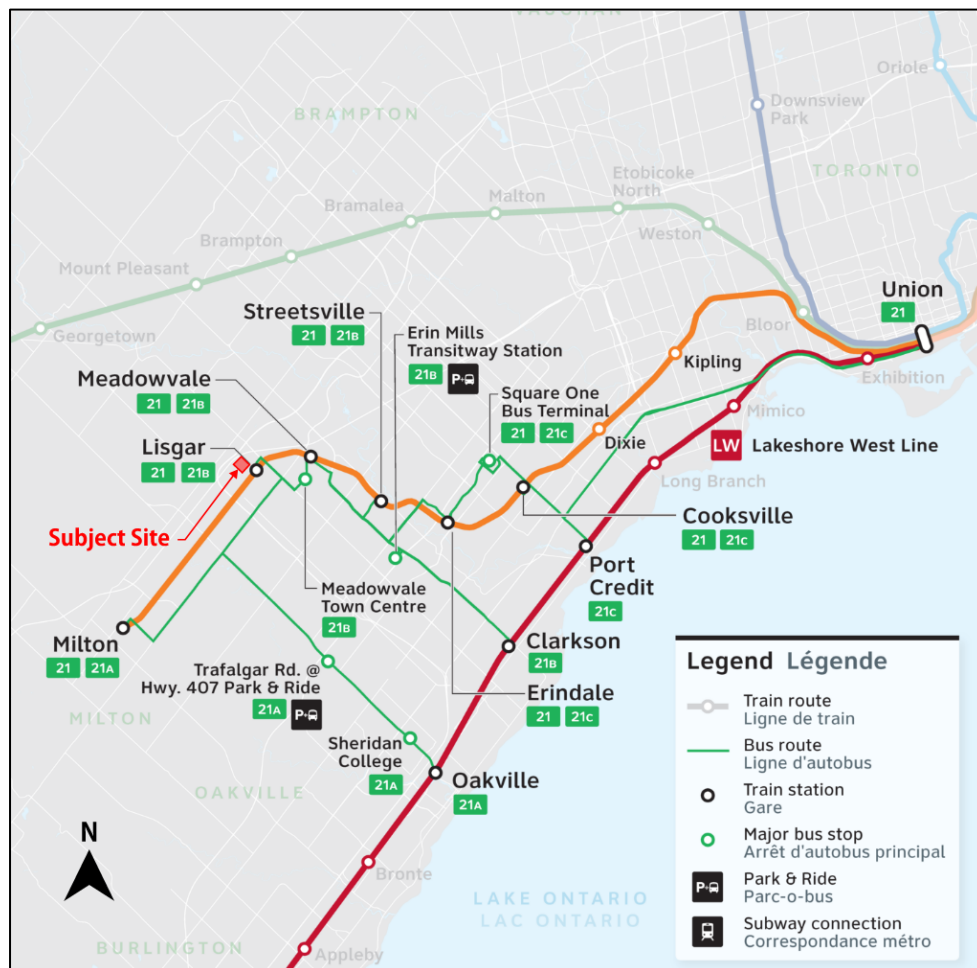
3.2 Transit Network

The subject site is served by GO Regional Rail and Bus transit, Mississauga’s MiWay Bus Transit, Brampton Transit Route, and Milton Transit. With many options within a 1 km distance from the proposed site, transit becomes a viable option for people travelling to and from the site.

3.2.1 GO Regional Transit

The closest GO Station to the site is Lisgar GO Station, which is a train and bus station that is located within a 1km radius south of the site access on Tenth Line West. This offers GO Bus and GO Train connections to the routes shown in **Figure 3-2**.

Figure 3-2 GO Transit Network



[Source: Routes & Departures | GO Transit](#)

3.2.2 MiWay (Mississauga) Transit

Within the study area, there are two MiWay municipal bus routes.

- ▶ **MiWay Route 38 (Argentia & Winston Churchill)** operates Monday to Friday throughout the day with approximately 30-minute frequency. The route travels generally a north-south direction between Meadowvale Town Centre in the north and Cooksville GO Station in the south. Within the study area, the route serves stops on Argentia Road and Winston Churchill Boulevard. Route 38 connects to Lisgar GO Station and Brampton Transit Route at the same stop on Argentia Road, less than 1 km from the subjected site.
- ▶ **MiWay Route 43 (Matheson-Argentia)** operates Monday to Friday during peak hours with approximately 45-minute frequency. During the P.M. peak hours, the route generally travels in an east-west direction between SmartCentres Meadowvale in the west and Commerce Boulevard at Renforth Station in the east. During A.M. peak hours, the route generally travels in a north-south direction between SmartCentres Meadowvale in the north and Meadowvale Town Centre in the south. Within the study area, the route serves a single stop at Argentia Road west of Winston Churchill Boulevard approximately 1 km from the subjected site.

Figure 3-3 MiWay Transit Route Near Site



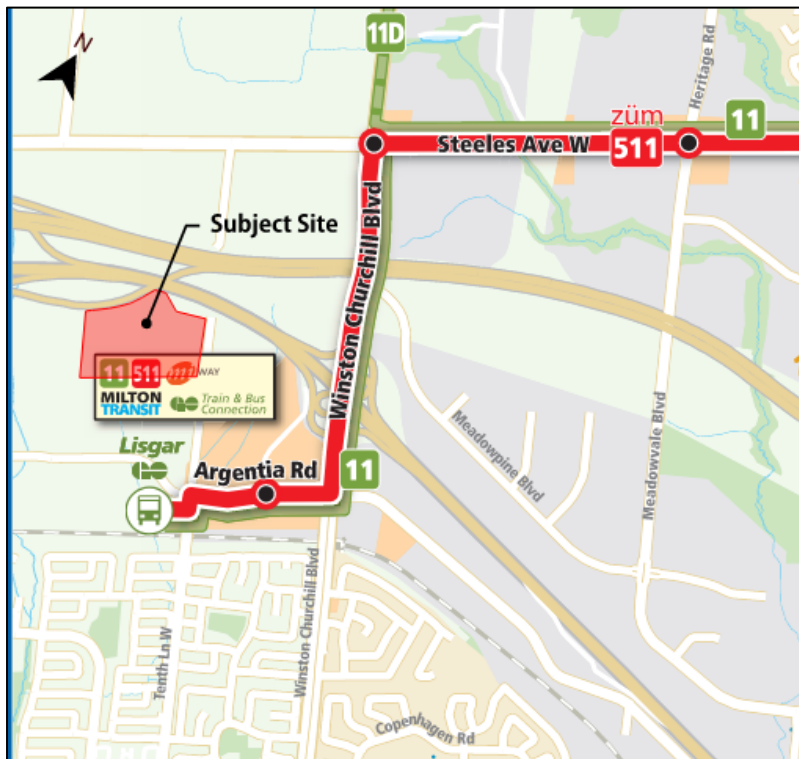
Source: MiWay System Maps

3.2.3 Brampton Transit Route

Within the study area, there are two city of Brampton bus routes. Both bus routes include stops less than 1 km from the subjected site.

- ▶ **Brampton Transit Route 511** operates Monday to Sunday and primarily runs along Steeles Avenue and generally travels in an east-west direction between Lisgar GO in the west and Humber College in the east. It operates at 15 to 20-minute frequency on weekdays and 30-minute frequency on weekends. Within the study area, the route serves one stop along Argentia Road. It connects to Lisgar GO Station, Mississauga’s MiWay transit route, and Milton Transit.
- ▶ **Brampton Transit Route 11** operates Monday to Sunday and primarily runs along Steeles Avenue and generally travels in an east-west direction between Lisgar GO in the west and Humber College in the east. Heading west, it operates at 20 to 45-minute frequencies on weekdays and 40 to 55-minute frequencies on weekends. Heading east, it operates at 10 to 23-minutes frequencies on weekdays and 20 to 27-minute frequencies on weekends. Within the study area, the route has stops along Argentia Road and Winston Churchill Boulevard. It connects Mississauga’s MiWay transit route, Milton Transit, and Lisgar GO trains and buses.

Figure 3-4 Brampton Transit Route Near Site

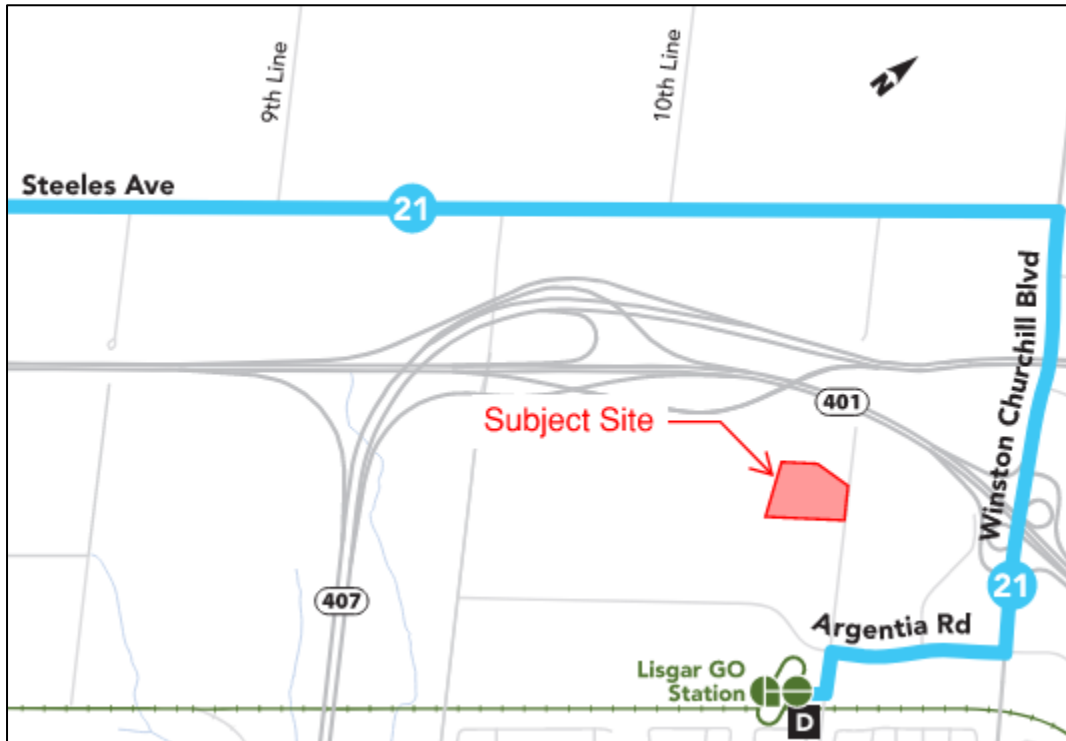


[Source: City of Brampton](#) | [Brampton Transit](#) | [iRide School Routes](#)

3.2.4 Milton Transit

Route 21 Steeles is a new addition to the Town of Milton’s bus route that generally runs in the east-west direction between Milton GO Station in the west and Lisgar GO Station in the east. From Monday to Sunday, it operates at 35-minute frequency. Within the study area, it services one stop at Lisgar GO.

Figure 3-5 Milton Transit 21 Steeles Route



[Source: Transit Schedules and Routes - Town of Milton](#)

3.3 Pedestrian Routes

Within the vicinity of the proposed site, Argentia Road is the closest roadway to the site with sidewalks on both sides, which will support pedestrian movement within the study area leading to the site access located on Argentia Road.

3.4 Cycling Routes

Within the vicinity of the proposed development, there are designated cycling routes on both sides of the road along Argentia Road and on Tenth Line West, south of its intersection with Argentia Road. These routes are marked with pavement markings that separate cyclists from vehicle traffic.

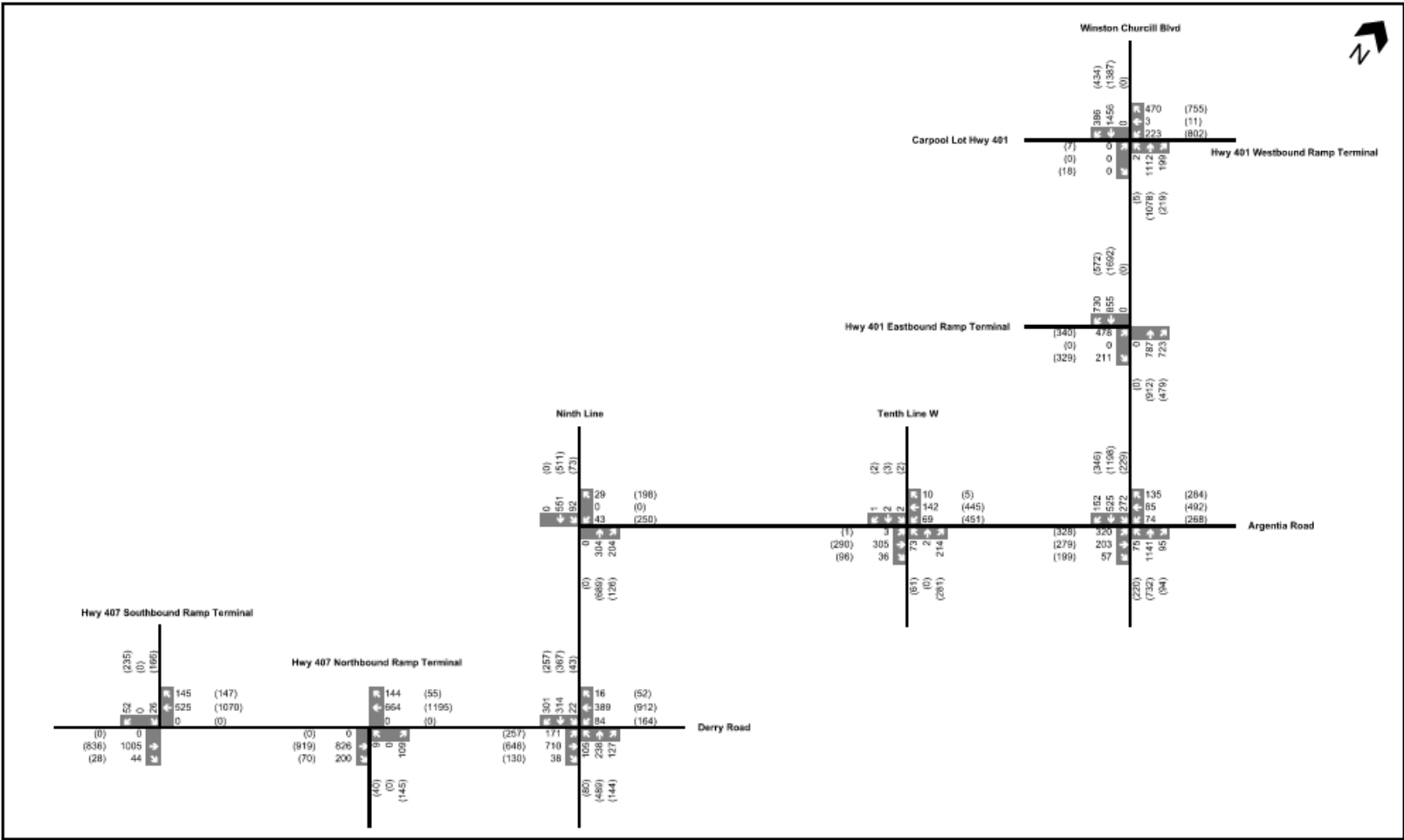


3.5 Existing Traffic Volumes

Traffic Volumes for existing conditions were obtained via turning movement counts (TMC) data commissioned by TYLin and conducted on August 6th, 2025. Due to the industrial nature of the site, its surrounding land uses, and location in relation to institutional buildings, the use of summer counts was proposed and deemed appropriate for the site. Based on coordination with City Staff, and approval of the Terms of Reference (TOR) attached in Appendix A, TYLin used the summer counts to prepare the existing conditions traffic model with traffic volumes as per **Figure 3-6** below. All TMC data can be found in **Appendix C**.

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Figure 3-6 Existing Traffic Volumes



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- xx A.M. Peak Hour Traffic Volumes
- (xx) P.M. Peak Hour Traffic Volumes

Figure 3-6

Existing Traffic Volumes

4 FUTURE CONDITIONS

4.1 Background Growth

Future traffic volumes for the 2032 (H1) and 2037 (H2) horizon years were developed by applying compounded annual growth rates to the existing (2025) traffic volumes. Growth rates were obtained from the City of Mississauga and the Region of Peel, based on the jurisdiction of each roadway.

For the 2025 to 2031 period, the growth rates provided by the City of Mississauga take into account the planned widening of Highway 401, which is why rates may appear higher than typical background growth values.

For the 2031 to 2037 period, the growth rates reflect the planned widening of Ninth Line from one through lane in each direction to two through lanes in each direction, resulting in relatively higher rates along Ninth Line compared to other corridors.

Table 4-1 summarizes the annual growth rates applied in the analysis:

Table 4-1 Background Developments

Roadway/ Jurisdiction	Directions	2025-2031 Rate	2031-2037 Rate	Source/Notes
Winston Churchill Boulevard (City)	NB/SB	3.0% AM/PM	1.0% AM 0.5% PM	City of Mississauga
Tenth Line West (City)	NB/SB	1.0% AM/PM	1.0% AM/PM	City of Mississauga
Ninth Line (City)	NB/SB	2.5% AM 2.0% PM	6.5% AM/PM	City of Mississauga
Argentia Road (City)	EB/WB	2.5% AM/PM	2.5% AM/PM	City of Mississauga
Derry Road (Region of Peel) ¹	EB/WB	0.5% AM/PM	0.5% AM/PM	Region of Peel
Highway 401 Ramp Terminals (MTO) ²	EB/WB	1.0% AM/PM	1.0% AM/PM	MTO
Highway 407 Ramp Terminals (407 International inc.) ³	NB/SB	1.0% AM/PM	1.0% AM/PM	407 Internal Inc.

¹ The 0.5% annual growth rate for Derry Road was based on values provided by the Region of Peel in a 2330 & 2360 Argentia Road- Proposed Industrial Development traffic study. The 2031–2041 rate was applied to the 2031–2037 period in this study.

² Highway 401 ramp terminals under MTO jurisdiction, a 1.0% annual growth rate was used as per a review of historical AADT volumes found on iCorridor.

³ Highway 407 ramp terminals under 407 International inc. Jurisdiction, a 1.0% annual growth rate was assumed due to absence of agency provided rates, remaining in line with Highway 401.

The confirmation of these growth rates, along with the correspondence from the agencies, is provided in **Appendix A**.

4.2 Background Developments

A review of the City of Mississauga's Planning Information Hub and Active Development Applications database confirmed that there are no active external development applications within the study area that are expected to influence the surrounding road network. This was further confirmed through consultation with reviewing agencies. However, the subject lands are currently undergoing a severance process to accommodate both the industrial warehouse and a data center adjacent to the proposed industrial site. As such, the site-generated traffic associated with the data center component has been incorporated as internal background development for the industrial traffic volume analysis. The data center is anticipated to generate a total of 23 vehicle trips during the weekday AM peak hour, consisting of 13 inbound and 10 outbound trips. During the weekday PM peak hour, the development is expected to generate a total of 19 vehicle trips, including 6 inbound and 13 outbound trips. These trips have been assigned to the surrounding road network and are illustrated in **Figure 4-4**. Accordingly, while no external background developments are considered in this study, the internal phasing of the site has been accounted for by including the data center traffic as background traffic for the industrial warehouse component.

4.3 Planned Network Improvements

TYLin is aware of 2 planned network improvements within the Vicinity of the proposed development.

The Proposed Site is within the MTO Area of Interest for the new proposed Highway 413 which is planned to the north of the site. At this time the project is still within the preliminary phase and as such no detailed design has been completed to date. It is our understanding that the proposed construction will not have an impact on the subjected site. Timelines for the completion of the project are still unknown at this time and as such the planned Highway 413 is not being considered as part of this TIS.

The City of Mississauga has undergone an EA assessment for the widening of Ninth Line Road. This EA concludes that widening of Ninth Line to the south of Derry Road is warranted from 2 lanes to 4 with timelines subjected to council review. Additionally, the widening of Ninth Line north of the study section, Derry Road intersection to Highway 401 overpass, is proposed with a timeline of 2033. As such TYLin incorporated the proposed widening of Ninth Line north of Derry Road for the background and total 2037 horizon analysis.

Figure 4-1 illustrates the future proposed lane configurations.

4.4 Horizon Years

In accordance with the City of Mississauga’s Transportation Impact Study (TIS) Guidelines and the Ministry of Transportation of Ontario (MTO) requirements, the following study horizon years were established for this assessment: Existing Year (2025), 5-Year post buildout Horizon (2032), and 10-Year post buildout Horizon (2037). These horizons provide a basis for evaluating existing conditions, short-term post-buildout impacts, and longer-term traffic operations within the study area.

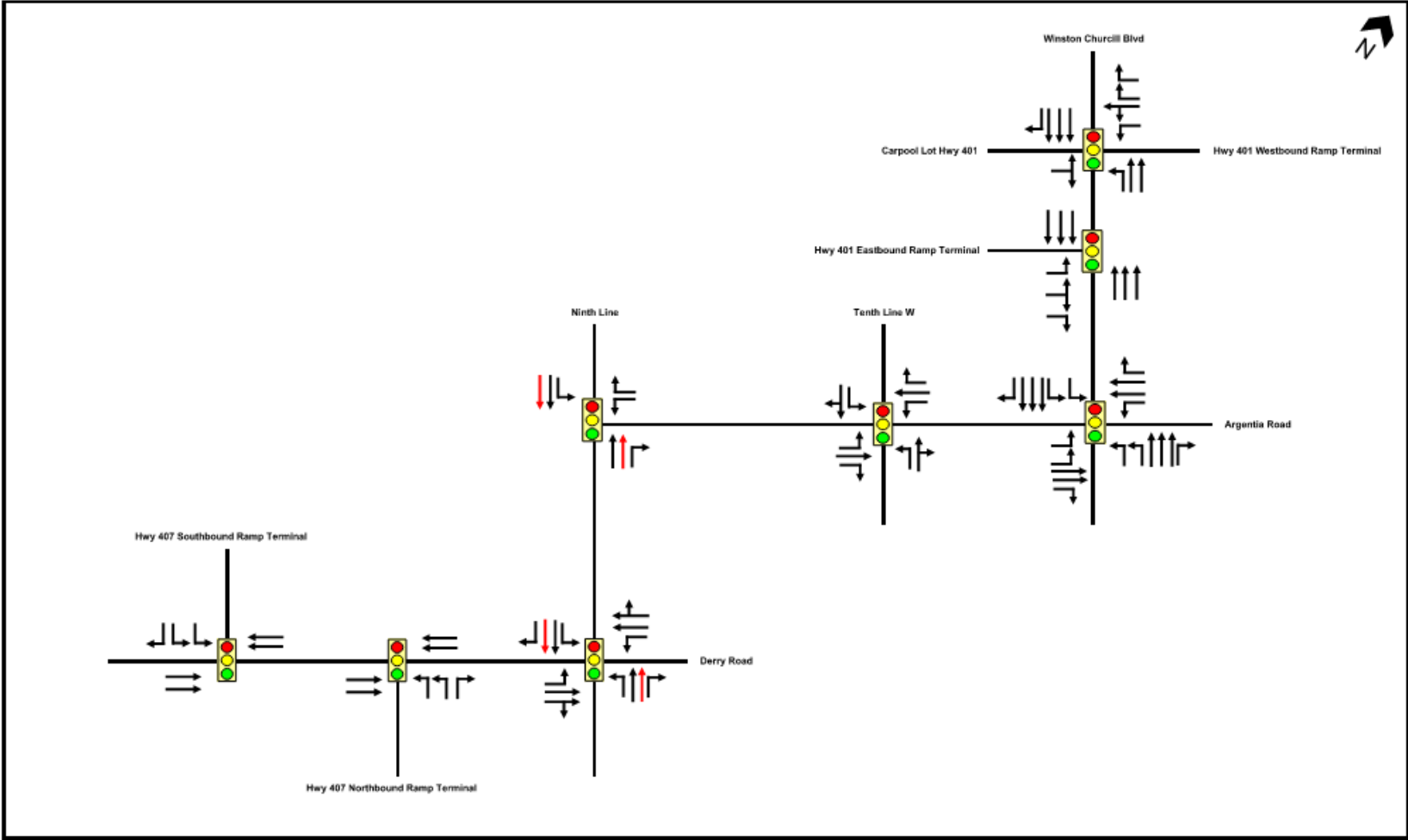
4.5 Future Background Traffic Volumes

Future background traffic volumes were developed by applying the compounded annual growth rates described in **Section 4.1** to the existing (2025) baseline traffic volumes for each study intersection, and the background development traffic described in **Section 4.2**. Growth rates were obtained from the City of Mississauga, the Region of Peel, and the Ministry of Transportation of Ontario (MTO), depending on the jurisdiction of each roadway.

The 2032 (5-year) and 2037 (10-year) background traffic volumes represent the traffic growth anticipated within the study area from the 2025 baseline year, independent of the proposed development. **Figure 4-2** presents the 2032 future background weekday AM and PM peak hour traffic volumes, while **Figure 4-3** presents the corresponding 2037 future background volumes.

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Figure 4-1 Future Lane Configuration



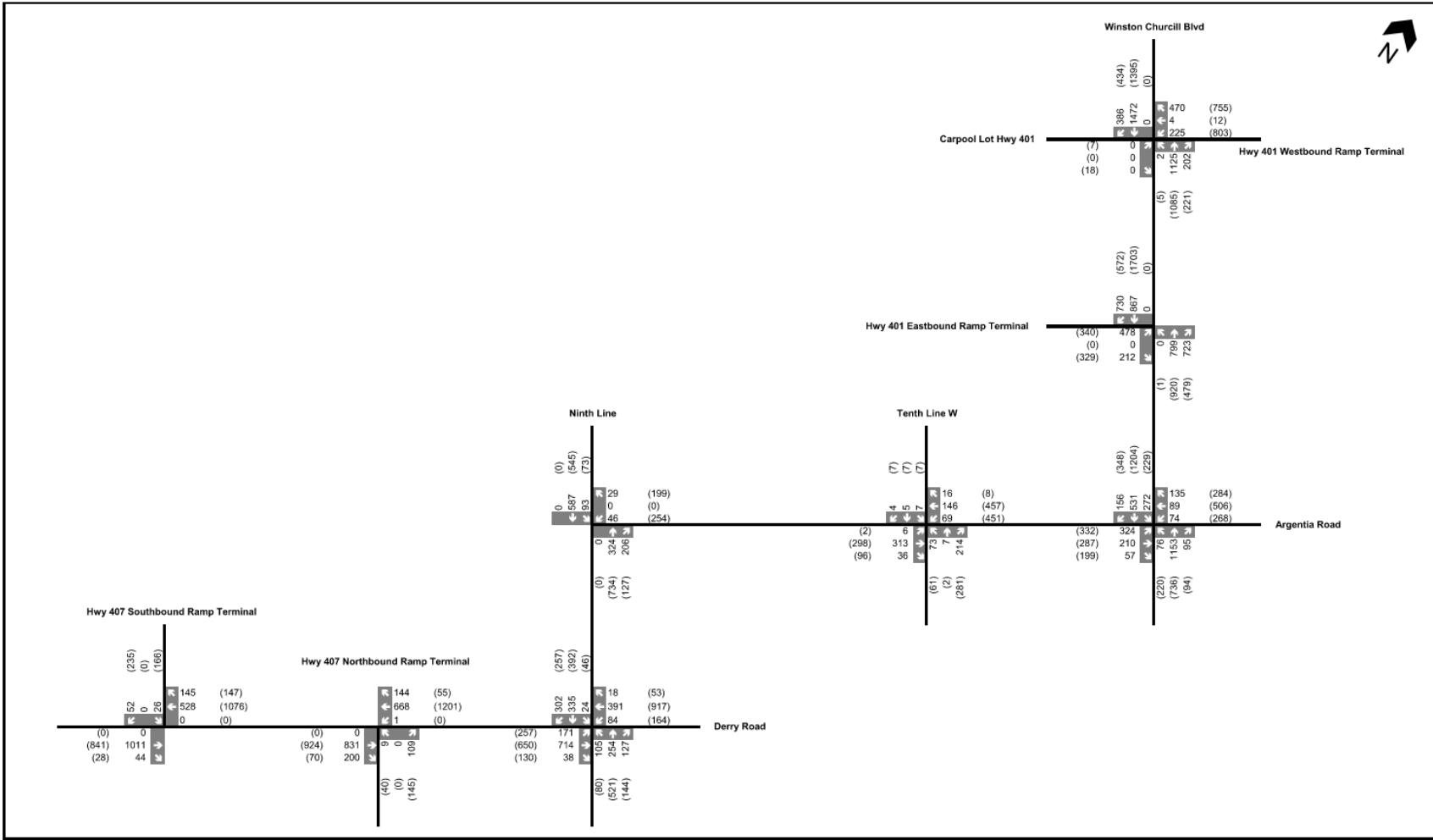
TYLin



Figure 4-1

Future Lane Configuration

Figure 4-2 Future Background Traffic Volumes-2032



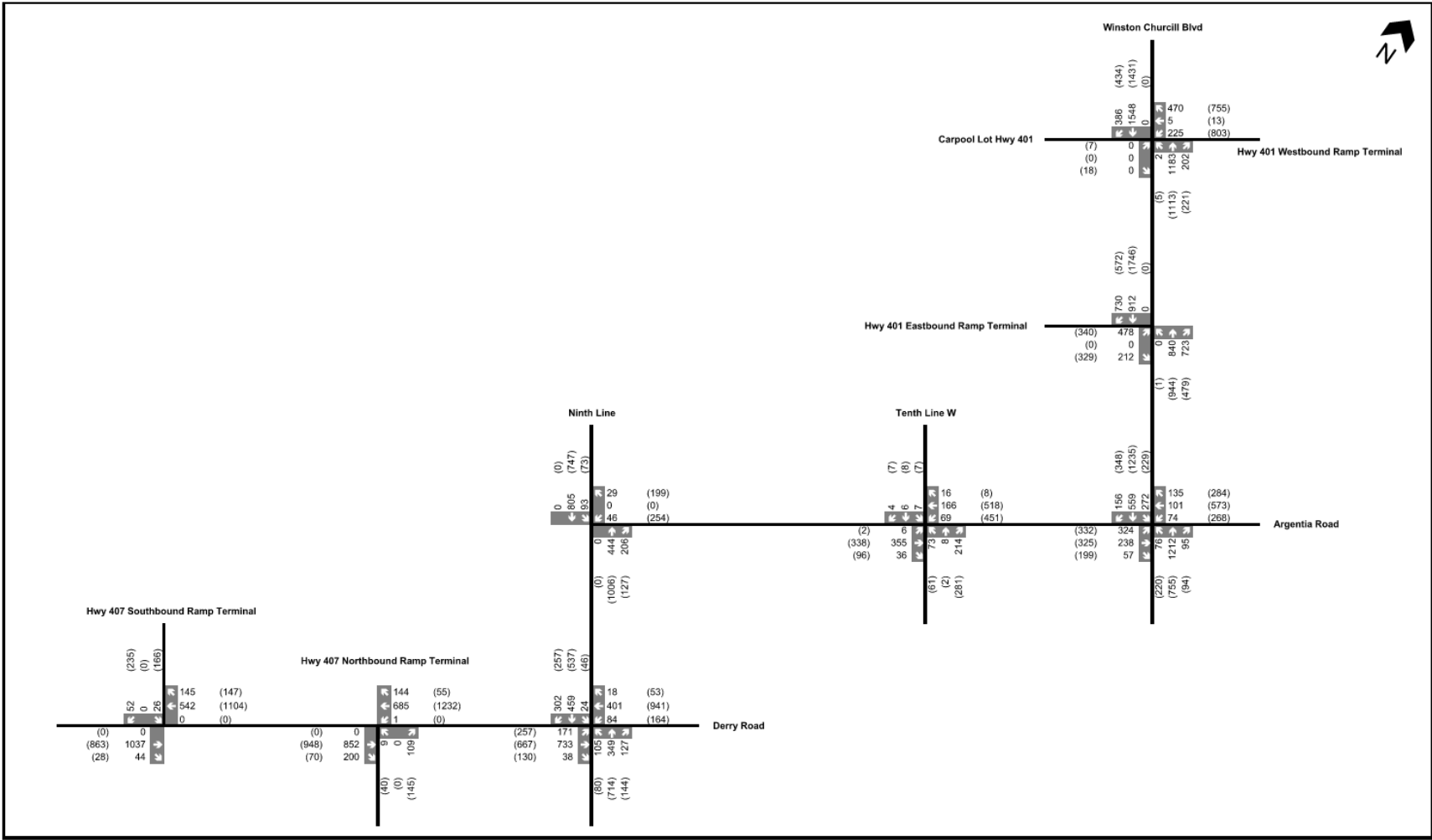
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- xx A.M. Peak Hour Traffic Volumes
- (xx) P.M. Peak Hour Traffic Volumes

Figure 4-2

2032 Future Background Traffic Volumes

Figure 4-3 Future Background Traffic Volumes-2037



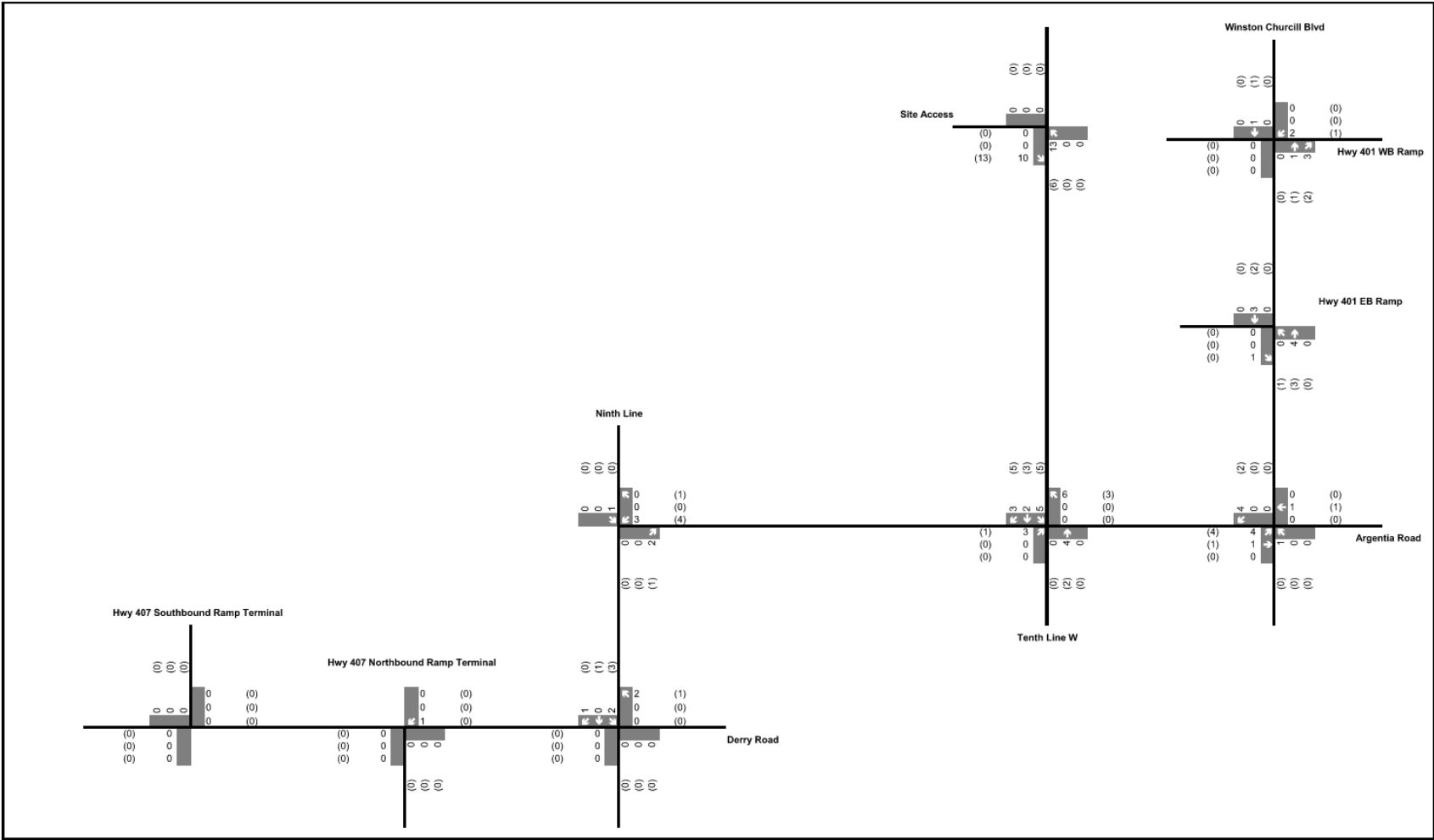
Legend

- xx A.M. Peak Hour Traffic Volumes
- (xx) P.M. Peak Hour Traffic Volumes

Figure 4-3

2037 Future Background Traffic Volumes

Figure 4-4 Background Development Traffic Volumes



Legend

- xx A.M. Peak Hour Traffic Volumes
- (xx) P.M. Peak Hour Traffic Volumes

Figure 4-4

Data Center Site Traffic-Industrial Warehouse
Background Development Traffic Volume

5 FUTURE TOTAL TRAFFIC VOLUMES

5.1 Site Trip Generation

Trip generation was estimated using the Institute of Transportation Engineers (ITE) Trip Generation Manual, 12th Edition. Based on the latest site plan, the proposed development includes the 2 industrial warehouses with total GFA of 57,326 m².

The industrial warehouse site was assessed under ITE Land Use Code (LUC) 150 – Warehouse, which provides peak hour vehicle trip estimates for facilities with primarily employee, maintenance, and service traffic.

Table 5-1 summarizes the estimated weekday AM and PM peak-hour trip generation including both passenger cars and heavy trucks for the warehouse land use based on the fitted curve equations from the ITE Manual, with the corresponding inbound/outbound splits applied.

Table 5-1 Site Trip Generation for Warehouse Development

Land Use	Parameters	Peak Hour Trip Generation					
		Weekday AM			Weekday PM		
		In	Out	Total	In	Out	Total
LUC 150 Warehouse 617,051.93 ft ² (57,326 m ²)	Fitted Curve Equation	T=0.12(X)+23.62			T=0.12(X)+26.48		
	Trip Distribution	55%	45%	100%	30%	70%	100%
	Gross Auto Trips	75	23	98	28	73	101

A total of 98 site trips, consisting of 75 inbound and 23 outbound trips, are predicted to be generated by the subject site during the AM peak hour. During the PM peak hour, 28 inbound and 73 outbound net auto site trips are predicted, totaling 101 trips.

5.2 Site Trip Distribution and Assignment

The distribution of site-generated traffic was derived from the 2022 Transportation Tomorrow Survey (TTS) summary data for Traffic Analysis Zones (TAZ) 3817, 3819, 3719, 3720, 3616, 3617, and 3638, and assigned to the road network accordingly.

The resulting site traffic distribution is summarized in **Table 5-2**.

Figure 5-1 illustrates the assigned site-generated traffic for the industrial warehouse.

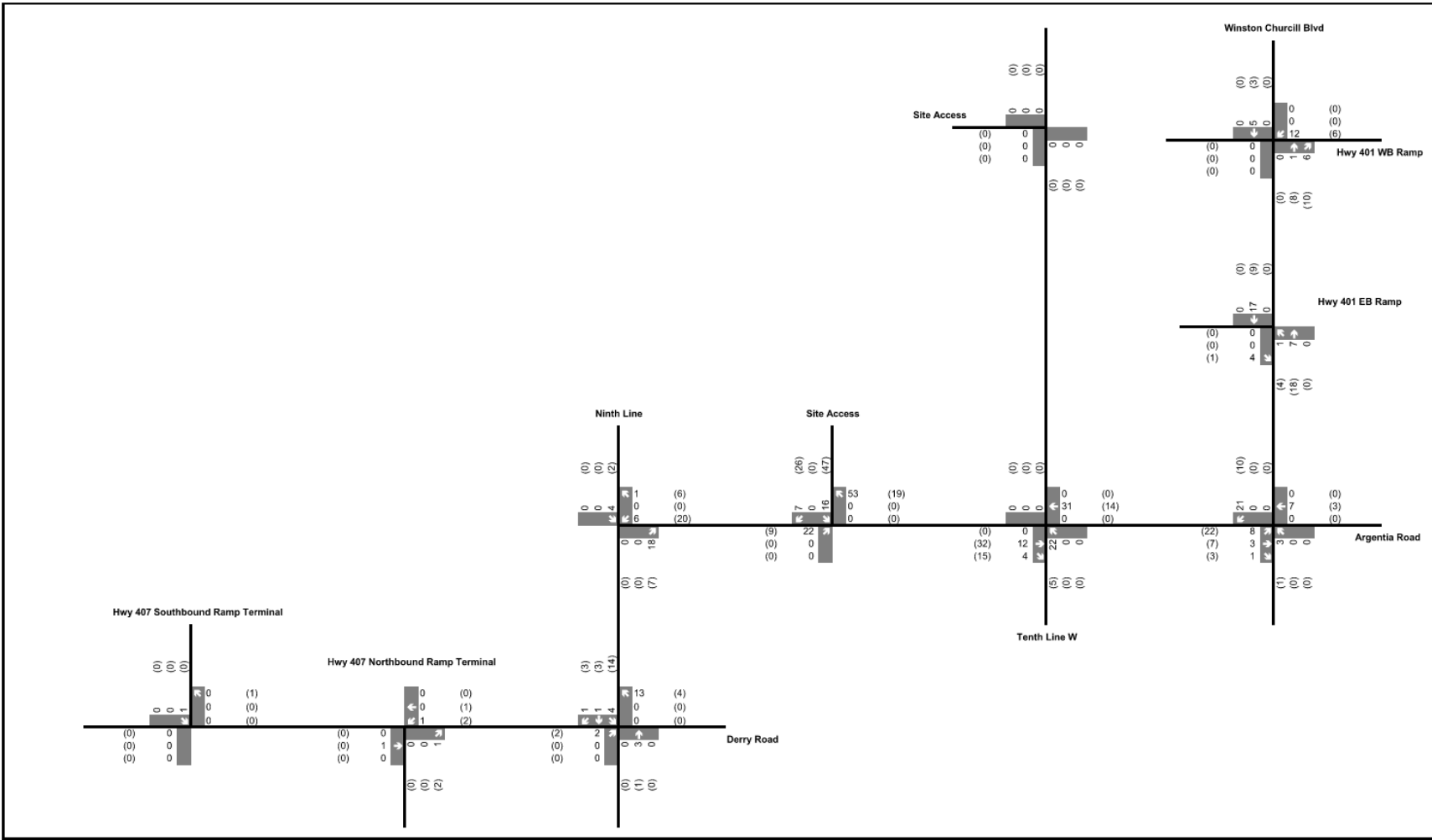
Table 5-2 Site Trip Distribution

To/From	Distribution (%)			
	AM peak period		PM peak period	
	Inbound	Outbound	Inbound	Outbound
Northwest	6%	5%	8%	12%
North	1%	2%	4%	2%
Northeast	8%	6%	8%	8%
East	7%	19%	18%	10%
Southeast	35%	35%	27%	35%
South	31%	26%	26%	23%
Southwest	8%	6%	6%	6%
West	4%	2%	3%	4%
Total	100%	100%	100%	100%

5.3 Future Total Traffic Volumes

The future total traffic volumes during the weekday peak hours for the 2032 and 2037 planning horizons were derived by combining the corresponding estimates of industrial warehouse site-generated traffic with the future background traffic volumes derived above. **Figure 5-2** summarizes the industrial development future total traffic volumes for the 2032 planning horizon during the weekday AM and PM peak hours, while **Figure 5-3** presents the industrial warehouse future total traffic volumes for the 2037 planning horizon during the weekday AM and PM peak hours.

Figure 5-1 Warehouse Site Traffic



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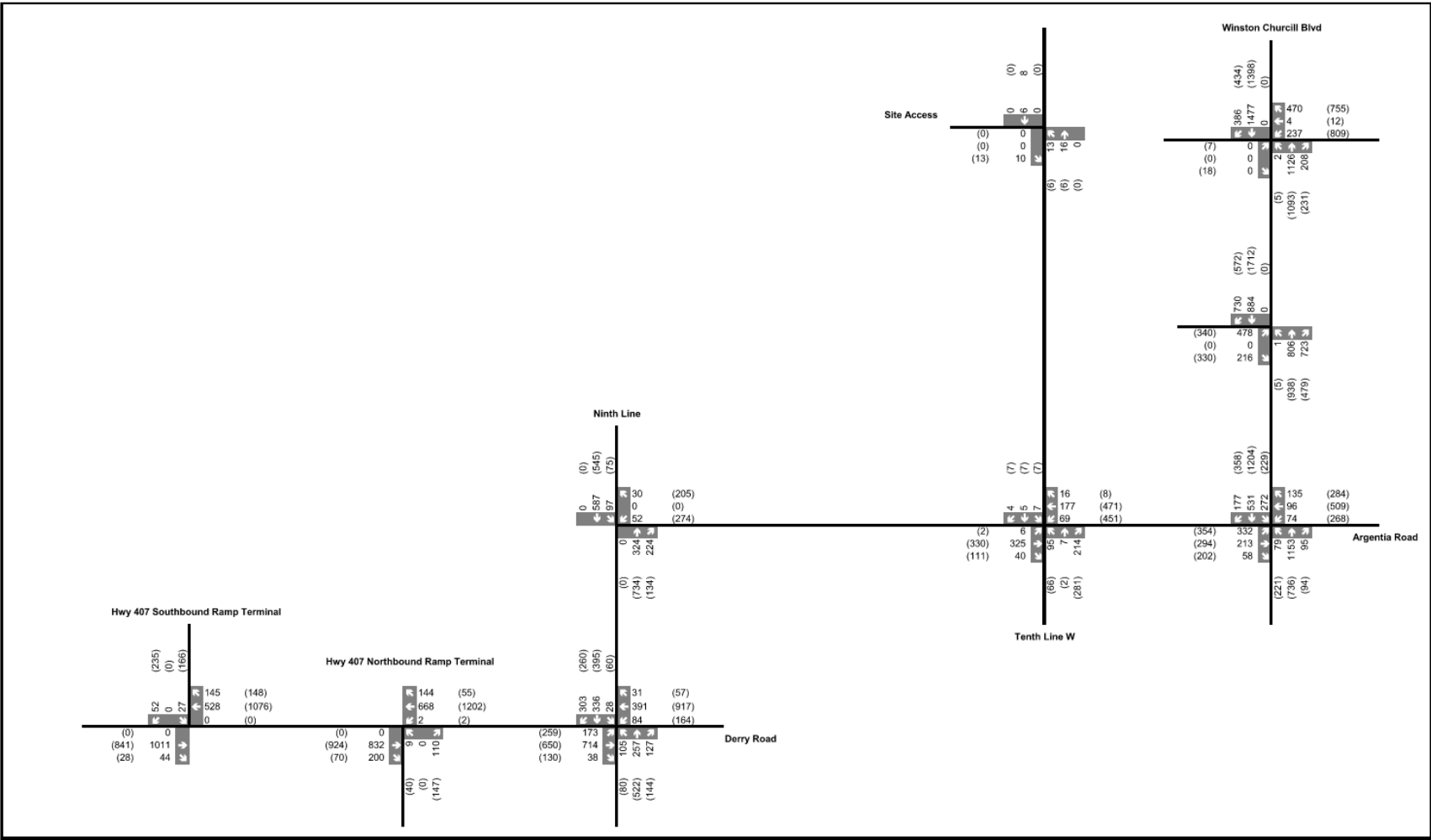
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- xx A.M. Peak Hour Traffic Volumes
- (xx) P.M. Peak Hour Traffic Volumes

Figure 5-1

Warehouse Site Traffic Volume

Figure 5-2 Future Total (2032) Traffic Volumes



TYLin

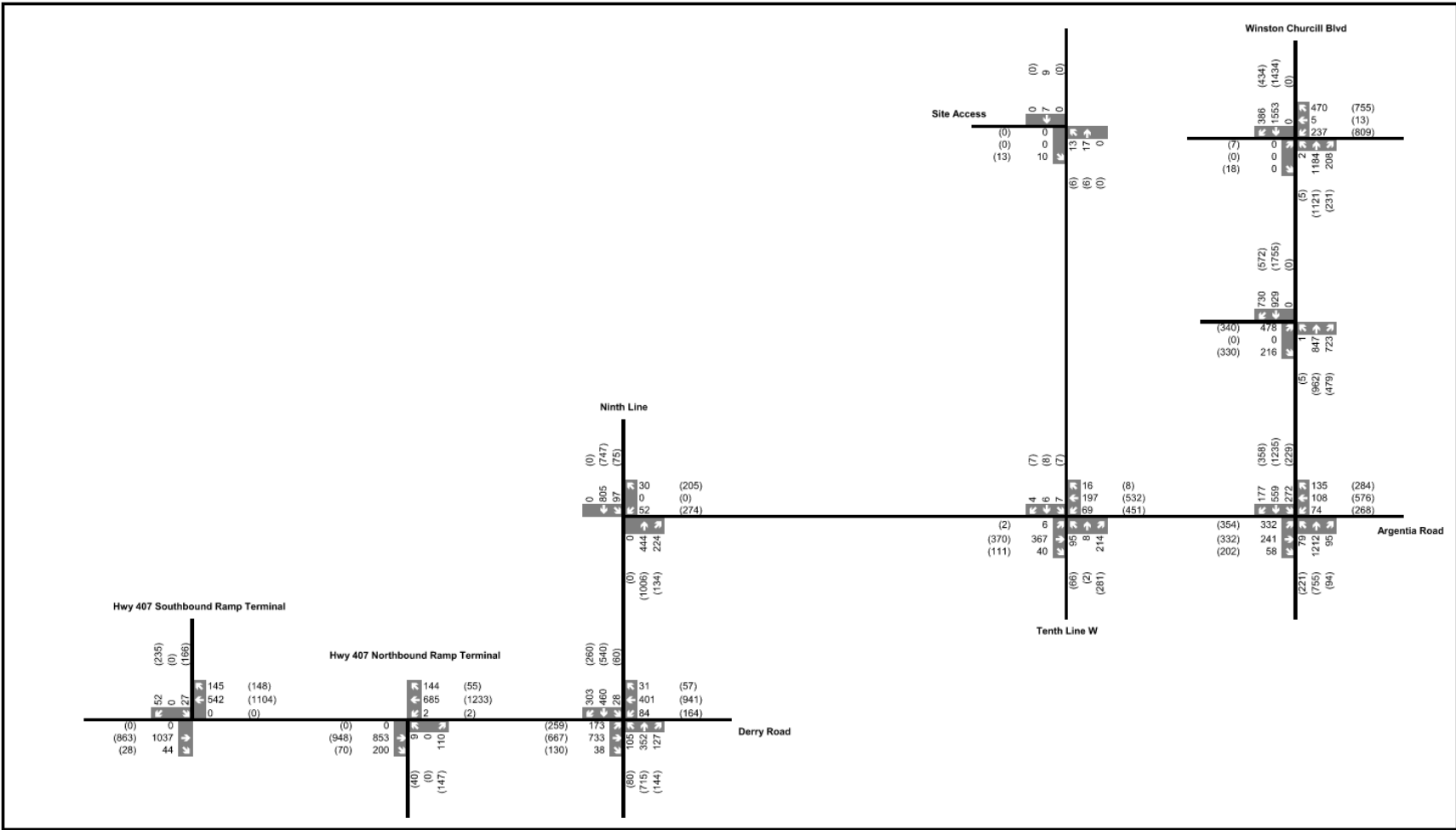
Legend

- xx A.M. Peak Hour Traffic Volumes
- (xx) P.M. Peak Hour Traffic Volumes

Figure 5-2

Future Total 2032 Traffic Volumes

Figure 5-3 Future Total (2037) Traffic Volumes



TYLin

Legend

- xx A.M. Peak Hour Traffic Volumes
- (xx) P.M. Peak Hour Traffic Volumes

Figure 5-3

Future Total 2037 Traffic Volumes

6 TRAFFIC CAPACITY ANALYSIS

The traffic capacity analysis identifies how well the intersections and access driveways are operating and how they are expected to operate in the future. The analysis contained in this report utilized the Highway Capacity Manual (HCM) methodology within the Synchro Software package. The reported intersection volume-to-capacity ratios (v/c) are a measure of the saturation volume for each turning movement, while the levels-of-service (LOS) are a measure of the average delay for each turning movement.

In accordance with the Ministry of Transportation (MTO) capacity requirements, capacity analysis was performed for all proposed site access points and study intersections. At signalized intersections, movements with a v/c ratio greater than 0.85 are deemed “critical” and evaluated for possible operational improvements. For MTO ramps, terminal ramp approaches with a v/c ratio greater than 0.75 are also deemed critical and assessed for potential improvements.

The following tables summarize the Synchro/HCM capacity results for the study intersections during the weekday a.m. and p.m. peak hours under baseline (2025), future background and future total (2032 and 2037) traffic conditions. Detailed Synchro reports are attached in **Appendix E**.

6.1 Existing Conditions

The traffic capacity analysis results for the intersections in the study area are summarized in **Table 6-1** for both the weekday a.m. and p.m. peak hours under existing traffic conditions. The existing signal timing plans were obtained from the City of Mississauga, Region of Peel. Signal timing data for Highway 401 and 407 ramp terminals were not provided, as such signal timings were prepared based on MTO Traffic Signal Operating and Timing Policy in conjunction with OTM book 12. All signal timing plans provided are located within **Appendix D**.

Table 6-1 Existing 2025 Capacity Analysis

Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
Winston Churchill Blvd & Hwy 401 WB Ramp (Signalized)	<i>Overall</i>	<i>0.53</i>	<i>20</i>	<i>B</i>	<i>0.71</i>	<i>38</i>	<i>D</i>
	EBL	0.00	0	-	0.12	75	E
	EBR	0.00	0	-	0.01	74	E
	WBL	0.32	51	D	0.76	53	D
	WBLT	0.00	0.00	E	0.75	52	D
	WBR	0.84	63	B	0.36	40	D
	NBL	0.01	17	B	0.04	21	C
	NBT	0.54	15	B	0.73	36	D
	NBR	0.55	16	B			
	SBT	0.42	12	B	0.54	20	C
	SBR	0.45	14	B	0.38	38	C
Winston Churchill Blvd & Hwy 401 EB Ramp (Signalized)	<i>Overall</i>	<i>0.57</i>	<i>24</i>	<i>C</i>	<i>0.68</i>	<i>21</i>	<i>C</i>
	EBLR	0.80	63	E	0.78	66	E
	EBR	0.75	64	D	0.76	70	E
	NBT	0.21	8	A	0.25	9	A
	SBT	0.35	9	B	0.65	10	A
Winston Churchill Blvd & Argentia Rd (Signalized)	<i>Overall</i>	<i>0.50</i>	<i>48</i>	<i>D</i>	<i>0.58</i>	<i>50</i>	<i>D</i>
	EBL	<i>1.07</i>	<i>142</i>	<i>F</i>	<i>1.03</i>	<i>130</i>	<i>F</i>
	EBT	0.18	43	D	0.44	61	E
	EBR	0.12	38	D	0.32	48	D
	WBL	0.21	45	D	0.79	64	E
	WBT	0.10	49	D	0.77	71	E
	WBR	0.30	41	D	0.61	55	D
	NBL	0.54	78	E	0.66	75	E
	NBT	0.46	33	C	0.24	24	C
	NBR	0.00	0	A	0.06	21	C
	SBL	0.89	86	F	0.67	68	E
	SBT	0.20	2	A	0.41	29	C
SBR	0.19	1	A	0.32	20	B	
Tenth Line W & Argentia Rd (Signalized)	<i>Overall</i>	<i>0.26</i>	<i>14</i>	<i>B</i>	<i>0.62</i>	<i>16</i>	<i>B</i>
	EBL	0.00	12	B	0.01	15	B
	EBT	0.34	15	B	0.38	19	B
	EBR	0.05	12	B	0.17	17	B
	WBL	0.12	9	A	0.85	30	C
	WBT	0.13	8	A	0.42	13	B
	WBR	0.01	8	A	0.01	9	A
	NBL	0.17	22	C	0.14	21	C
NBTR	0.54	25	C	0.66	26	C	

Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
	SBL	0.01	28	C	0.01	30	C
	SBTR	0.00	27	C	0.01	26	C
Ninth Line & Argentia Rd (Signalized)	<i>Overall</i>	<i>0.39</i>	<i>7</i>	<i>A</i>	<i>0.61</i>	<i>15</i>	<i>C</i>
	WBL	0.18	27	C	0.50	21	C
	WBR	0.02	26	C	0.16	19	B
	NBT	0.24	5	A	0.67	16	B
	NBR	0.14	5	A	0.08	8	A
	SBL	0.14	5	A	0.30	12	B
	SBT	0.43	7	A	0.52	13	B
	<i>Overall</i>	<i>0.49</i>	<i>34</i>	<i>C</i>	<i>0.80</i>	<i>41</i>	<i>D</i>
Ninth Line & Derry Rd (Signalized)	EBL	0.29	14	B	0.73	29	C
	EBTR	0.39	21	C	0.47	29	C
	WBL	0.22	16	B	0.41	19	B
	WBT	0.22	21	C	0.62	35	D
	NBL	0.45	44	D	0.45	44	D
	NBT	0.40	44	D	0.84	61	E
	NBR	0.08	39	D	0.10	39	D
	SBL	0.10	52	D	0.51	58	E
	SBT	0.78	71	E	0.84	72	E
	SBR	0.20	53	D	0.17	50	D
Hwy 407 NB Ramp & Derry Rd E	<i>Overall</i>	<i>0.37</i>	<i>5</i>	<i>A</i>	<i>0.50</i>	<i>7</i>	<i>A</i>
	EBT	0.40	3	A	0.45	5	A
	WBT	0.25	2	A	0.54	7	A
	NBL	0.04	34	C	0.08	22	C
	NBR	0.07	35	C	0.34	26	C
Derry Rd & Hwy 407 SB Ramp	<i>Overall</i>	<i>0.35</i>	<i>4</i>	<i>A</i>	<i>0.56</i>	<i>9</i>	<i>A</i>
	EBT	0.38	3	A	0.38	6	A
	WBT	0.26	1	A	0.55	5	A
	SBL	0.10	35	C	0.25	21	C
	SBR	0.04	34	C	0.60	30	C

Under existing conditions all movements at all study intersections operate under capacity with a v/c of 0.84, a delay of 75s or less and a LOS of E or better, with the exception of the Winston Churchill Blvd & Argentia Rd where the eastbound left turn lane operates at an LOS of F, a v/c above 1 and a delays over 130s in both the AM and PM peak hours. The ramp terminals at Highway 401 and Winston Churchill Boulevard are nearing or at critical v/c of 0.75.

6.2 Future Background Conditions

The traffic capacity analysis results for the study area intersections under 2032 future background conditions are summarized in **Table 6-2**, and the results under 2037 future background traffic conditions are summarized in **Table 6-3**, for both the weekday AM and PM peak hours. These scenarios serve as a baseline for comparison for the future horizons, representing the scenario where there is no development built.

Note that the signal timing splits for intersections has been optimized using Synchro’s built in optimization feature for the future conditions, and this improvement has been carried forward for all future scenarios.

Table 6-2 Future Background 2032 Capacity Analysis

Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal	<i>Overall</i>	<i>0.82</i>	<i>15</i>	<i>B</i>	<i>0.81</i>	<i>32</i>	<i>C</i>
	EBL	0.00	0	A	0.00	0	A
	EBR	0.00	0	A	0.00	0	A
	WBL	0.32	51	D	0.82	57	E
	WBTL	0.00	0	A	0.00	0	A
	WBR	0.84	63	E	0.86	61	E
	NBL	0.01	20	B	0.03	27	C
	NBT	0.63	18	B	0.66	24	C
	SBT	0.50	14	B	0.52	19	C
	SBR	0.45	14	B	0.52	20	B
Winston Churchill Blvd & Hwy 401 EB Ramp Terminal	<i>Overall</i>	<i>0.80</i>	<i>23</i>	<i>C</i>	<i>0.77</i>	<i>21</i>	<i>C</i>
	EBLR	0.80	63	E	0.78	57	E
	EBR	0.75	64	E	0.82	64	E
	NBT	0.25	9	A	0.30	9	A
	SBT	0.42	11	B	0.72	15	B
Winston Churchill Blvd & Argentia Rd	<i>Overall</i>	<i>0.80</i>	<i>37</i>	<i>D</i>	<i>0.80</i>	<i>46</i>	<i>D</i>
	EBL	0.87	84	F	0.85	81	E
	EBT	0.20	41	D	0.27	42	D
	EBR	0.11	35	D	0.34	35	C
	WBL	0.22	45	D	0.55	37	D
	WBT	0.12	49	D	0.51	49	E
	WBR	0.30	41	D	0.52	41	C



Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
	NBL	0.54	78	E	0.83	87	E
	NBT	0.59	39	D	0.39	38	C
	NBR	0.00	0.0	A	0.00	0	A
	SBL	0.86	75	E	0.82	79	E
	SBT	0.25	4	A	0.66	43	D
	SBR	0.19	3	A	0.46	29	B
Tenth Line W & Argentia Rd	<i>Overall</i>	<i>0.49</i>	<i>9</i>	<i>A</i>	<i>0.82</i>	<i>17</i>	<i>B</i>
	EBL	0.01	12	B	0.00	16	B
	EBT	0.40	16	B	0.45	20	C
	EBR	0.05	12	B	0.18	17	B
	WBL	0.13	9	A	0.92	40	D
	WBT	0.15	9	A	0.49	13	B
	WBR	0.02	8	A	0.01	9	A
	NBL	0.18	22	C	0.15	21	C
	NBTR	0.55	25	C	0.65	26	C
	SBL	0.04	28	C	0.04	30	C
SBTR	0.04	28	C	0.05	26	C	
Ninth Line & Argentia Rd	<i>Overall</i>	<i>0.46</i>	<i>8</i>	<i>A</i>	<i>0.76</i>	<i>16</i>	<i>B</i>
	WBL	0.43	26	C	0.74	26	C
	WBR	0.31	25	C	0.65	24	C
	NBT	0.26	3	A	0.66	10	B
	NBR	0.19	3	A	0.13	5	A
	SBL	0.14	4	A	0.22	16	B
SBT	0.47	4	A	0.51	8	A	
Ninth Line & Derry Rd E/Derry Rd W	<i>Overall</i>	<i>0.81</i>	<i>30</i>	<i>C</i>	<i>0.87</i>	<i>42</i>	<i>D</i>
	EBL	0.30	15	B	0.79	32	C
	EBTR	0.40	1	A	0.49	31	C
	WBL	0.19	17	B	0.46	24	C
	WBT	0.23	22	C	0.64	39	D
	NBL	0.52	45	C	0.44	39	D
	NBT	0.43	43	D	0.84	53	D
	NBR	0.25	40	D	0.27	37	D
	SBL	0.10	51	D	0.46	75	F
SBT	0.74	58	E	0.75	57	E	



Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
	<i>SBR</i>	0.79	61	E	0.59	50	D
Hwy 407 NB Ramp Terminal & Derry Rd E	<i>Overall</i>	<i>0.48</i>	<i>3</i>	<i>A</i>	<i>0.56</i>	<i>7</i>	<i>A</i>
	EBT	0.58	15	B	0.63	16	B
	WBT	0.38	11	B	0.77	16	C
	NBL	0.01	19	B	0.04	14	B
	NBR	0.24	21	C	0.30	16	B
Derry Rd E & Hwy 407 SB Ramp Terminal	<i>Overall</i>	<i>0.39</i>	<i>3</i>	<i>A</i>	<i>0.65</i>	<i>9</i>	<i>A</i>
	EBT	0.52	10	B	0.50	11	B
	WBT	0.35	9	A	0.72	5	B
	SBL	0.03	21	A	0.15	14	B
	SBR	0.15	22	C	0.46	18	B

During the 2032 background traffic horizon, all study intersections and movements are anticipated to operate well with v/c 0.86 or less, delays of 80s or less, and a LOS of E or better with the exception of Tenth Line and Argentia Road where the WBL is shown to operate at an v/c ratio of 0.95. However there is still shown to be reserve capacity at this movement after signal timing adjustments were undertaken.

Table 6-3 Future Background 2037 Capacity Analysis

Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal	<i>Overall</i>	<i>0.83</i>	<i>15</i>	<i>B</i>	<i>0.83</i>	<i>32</i>	<i>C</i>
	EBL	0.00	0	A	0.00	0	A
	EBR	0.00	0	A	0.00	0	A
	WBL	0.32	51	D	0.81	55	D
	WBTL	0.00	0	A	0.00	0	A
	WBR	0.84	63	E	0.90	65	E
	NBL	0.01	21	C	0.03	29	C
	NBT	0.66	19	B	0.72	27	B
	SBT	0.53	14	B	0.54	20	B
	SBR	0.45	14	B	0.53	21	B
Winston Churchill Blvd & Hwy 401 EB Ramp Terminal	<i>Overall</i>	<i>0.80</i>	<i>23</i>	<i>C</i>	<i>0.77</i>	<i>21</i>	<i>C</i>
	EBLR	0.80	56	E	0.79	59	E
	EBR	0.76	57	E	0.84	68	E
	NBT	0.27	9	A	0.31	9	A
	SBT	0.45	11	B	0.73	15	B
Winston Churchill Blvd & Argentia Rd	<i>Overall</i>	<i>0.82</i>	<i>37</i>	<i>D</i>	<i>0.80</i>	<i>47</i>	<i>D</i>
	EBL	0.87	86	F	0.86	81	F
	EBT	0.23	41	D	0.31	43	D
	EBR	0.11	35	D	0.34	36	D
	WBL	0.22	45	D	0.57	37	D
	WBT	0.13	50	D	0.58	50	D
	WBR	0.30	41	D	0.52	41	D
	NBL	0.54	78	E	0.82	86	F
	NBT	0.62	39	D	0.42	39	D
	NBR	0.00	0	A	0.00	0	A
	<i>SBL</i>	0.86	84	F	0.82	79	E
	SBT	0.26	27	C	0.66	43	D
	SBR	0.19	17	B	0.46	29	C
Tenth Line W & Argentia Rd	<i>Overall</i>	<i>0.49</i>	<i>10</i>	<i>A</i>	<i>0.93</i>	<i>22</i>	<i>C</i>
	EBL	0.01	12	B	0.01	18	B
	EBT	0.46	17	B	0.52	21	C
	EBR	0.05	12	B	0.17	17	B
	WBL	0.14	10	A	0.96	51	D



Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
	WBT	0.17	9	A	0.57	15	B
	WBR	0.02	8	A	0.01	9	A
	NBL	0.18	22	C	0.14	21	C
	NBTR	0.55	25	C	0.65	26	C
	SBL	0.04	28	C	0.04	30	C
	SBTR	0.04	28	C	0.05	26	C
Ninth Line & Argentia Rd	<i>Overall</i>	<i>0.33</i>	<i>7</i>	<i>A</i>	<i>0.54</i>	<i>13</i>	<i>B</i>
	WBL	0.43	26	C	0.74	26	C
	WBR	0.31	25	C	0.65	24	C
	NBT	0.19	3	A	0.47	7	A
	NBR	0.19	3	A	0.14	5	A
	SBL	0.15	4	A	0.23	12	B
	SBT	0.34	3	A	0.35	6	A
Ninth Line & Derry Rd E/Derry Rd W	<i>Overall</i>	<i>0.74</i>	<i>30</i>	<i>C</i>	<i>0.77</i>	<i>38</i>	<i>D</i>
	EBL	0.31	16	B	0.74	25	C
	EBTR	0.42	1	A	0.45	25	C
	WBL	0.19	18	B	0.43	19	B
	WBT	0.24	24	C	0.58	31	C
	<i>NBL</i>	<i>0.44</i>	<i>41</i>	<i>D</i>	<i>0.44</i>	<i>44</i>	<i>D</i>
	NBT	0.30	39	D	0.68	49	D
	NBR	0.25	38	D	0.31	42	D
	SBL	0.09	45	D	0.40	68	E
	SBT	0.51	51	D	0.65	56	E
	<i>SBR</i>	<i>0.76</i>	<i>58</i>	<i>E</i>	<i>0.71</i>	<i>61</i>	<i>E</i>
Hwy 407 NB Ramp Terminal & Derry Rd E	<i>Overall</i>	<i>0.48</i>	<i>3</i>	<i>A</i>	<i>0.58</i>	<i>8</i>	<i>A</i>
	EBT	0.59	15	B	0.65	16	B
	WBT	0.37	12	B	0.79	17	B
	NBL	0.01	19	B	0.04	14	B
	NBR	0.24	21	C	0.30	16	B
Derry Rd E & Hwy 407 SB Ramp Terminal	<i>Overall</i>	<i>0.40</i>	<i>3</i>	<i>A</i>	<i>0.65</i>	<i>9</i>	<i>A</i>
	EBT	0.54	10	B	0.51	11	B
	WBT	0.36	9	A	0.74	17	B
	SBL	0.03	21	C	0.15	14	B
	SBR	0.15	22	C	0.46	18	B

During the 2037 background traffic horizon, all study intersections and movements are anticipated to operate well with v/c 0.87 or less, delays of 78s or less, and a LOS of E or better. Except the intersection Winston Churchill Boulevard and Argentia Road EBL and SBL movements, operate at LOS F. However, there is still shown to be reserve capacity at this movement after signal timing adjustments were undertaken. It is anticipated that this may be improved through increasing the signal timing from the existing 100s cycle length.

6.3 Future Total Conditions

The future total road network consists of the future background traffic combined with the subject site traffic. The traffic capacity analysis results for the intersections in the study area are summarized in **Table 6-4** for the 2032 horizon year and in **Table 6-5** for the 2037 horizon year, for both the weekday AM and PM peak hours.

Table 6-4 Future Total 2032 Capacity Analysis

Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal	<i>Overall</i>	<i>0.82</i>	<i>15</i>	<i>B</i>	<i>0.83</i>	<i>32</i>	<i>C</i>
	EBL	0.00	0	A	0.00	0	A
	EBR	0.00	0	A	0.00	0	A
	WBL	0.34	51	D	0.81	56	E
	WBTL	0.00	0	A	0.00	0	A
	WBR	0.83	63	E	0.90	65	E
	NBL	0.01	20	C	0.03	28	C
	NBT	0.64	18	B	0.71	27	C
	SBT	0.51	14	B	0.53	20	B
	SBR	0.45	14	B	0.53	21	C
Winston Churchill Blvd & Hwy 401 EB Ramp Terminal	<i>Overall</i>	<i>0.80</i>	<i>23</i>	<i>C</i>	<i>0.77</i>	<i>21</i>	<i>C</i>
	EBLR	0.82	66	E	0.80	67	E
	EBR	0.79	67	E	0.85	78	E
	NBT	0.26	9	A	0.30	9	A
	SBT	0.43	11	B	0.70	15	B
Winston Churchill Blvd & Argentia Rd	<i>Overall</i>	<i>0.82</i>	<i>37</i>	<i>D</i>	<i>0.80</i>	<i>47</i>	<i>D</i>
	EBL	0.87	84	F	0.86	81	F
	EBT	0.20	41	D	0.27	41	D
	EBR	0.11	35	C	0.34	35	C
	WBL	0.22	45	D	0.55	37	D



Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
	WBT	0.13	49	D	0.51	49	D
	WBR	0.30	41	D	0.52	41	D
	NBL	0.56	79	E	0.83	86	F
	NBT	0.59	39	D	0.42	39	D
	NBR	0.00	0	A	0.00	0	A
	SBL	0.87	77	E	0.83	73	E
	SBT	0.25	4	A	0.66	17	B
	SBR	0.22	3	A	0.48	12	B
Tenth Line W & Argentia Rd	<i>Overall</i>	<i>0.54</i>	<i>10</i>	<i>B</i>	<i>0.83</i>	<i>18</i>	<i>B</i>
	EBL	0.01	12	B	0.07	18	B
	EBT	0.42	16	B	0.46	20	C
	EBR	0.06	13	B	0.17	17	B
	WBL	0.14	10	A	0.91	40	D
	WBT	0.18	9	A	0.50	14	B
	WBR	0.02	8	A	0.03	9	A
	NBL	0.22	23	C	0.15	21	C
	NBTR	0.54	25	C	0.00	0	C
	SBL	0.04	28	C	0.19	32	C
	SBTR	0.04	28	C	0.00	0	A
Ninth Line & Argentia Rd	<i>Overall</i>	<i>0.46</i>	<i>8</i>	<i>A</i>	<i>0.76</i>	<i>16</i>	<i>B</i>
	WBL	0.47	26	C	0.76	27	C
	WBR	0.30	24	C	0.64	24	C
	NBT	0.26	3	A	0.67	11	B
	NBR	0.21	3	A	0.15	5	A
	SBL	0.14	4	A	0.24	17	B
	SBT	0.47	4	A	0.50	8	A
Ninth Line & Derry Rd E/Derry Rd W	<i>Overall</i>	<i>0.81</i>	<i>30</i>	<i>C</i>	<i>0.86</i>	<i>43</i>	<i>D</i>
	EBL	0.31	15	B	0.79	32	C
	EBTR	0.41	1	A	0.49	30	C
	WBL	0.19	17	B	0.45	23	C
	WBT	0.23	22	C	0.64	38	D
	NBL	0.52	44	D	0.45	42	D
	NBT	0.44	43	D	0.83	53	D
	NBR	0.25	40	D	0.27	37	D



Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
	SBL	0.11	51	D	0.61	83	F
	SBT	0.74	57	E	0.78	59	E
	SBR	0.79	60	E	0.61	52	D
Hwy 407 NB Ramp Terminal & Derry Rd E	<i>Overall</i>	<i>0.48</i>	<i>3</i>	<i>A</i>	<i>0.56</i>	<i>8</i>	<i>4</i>
	EBT	0.58	15	B	0.63	16	B
	WBT	0.38	12	B	0.74	20	B
	NBL	0.01	19	B	0.04	14	B
	NBR	0.24	21	C	0.30	16	B
Derry Rd E & Hwy 407 SB Ramp Terminal	<i>Overall</i>	<i>0.39</i>	<i>3</i>	<i>A</i>	<i>0.65</i>	<i>9</i>	<i>A</i>
	EBT	0.52	10	B	0.50	11	B
	WBT	0.35	9	A	0.72	17	B
	SBL	0.03	21	C	0.15	14	B
	SBR	0.15	22	C	0.46	18	B
Tenth Line W & Site Access	<i>Overall</i>	<i>-</i>	<i>7</i>	<i>A</i>	<i>-</i>	<i>8</i>	<i>A</i>
	EBLR	0.02	8	A	0.07	9	A
	NBTR	0.05	7	A	0.02	7	A
	SBTL	-	-	-	-	-	-

The 2032 Total Traffic analysis results are shown to be very similar to the 2032 background traffic analysis with only the EBL and NBL movement at Winston Churchill Blvd & Argentia Rd is shown to operate at an LOS of F. However, the movement continues to have reserved capacity. The proposed site accesses are anticipated to operate well below capacity with minimal delays.

Table 6-5 Future Total 2037 Capacity Analysis

Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal	<i>Overall</i>	<i>0.82</i>	<i>15</i>	<i>B</i>	<i>0.85</i>	<i>33</i>	<i>C</i>
	EBL	0.00	0	A	0.00	0	A
	EBR	0.00	0	A	0.00	0	A
	WBL	0.83	58	E	0.83	54	D
	WBTL	0.00	0	A	0.00	0	A
	WBR	0.86	61	E	0.86	61	E
	NBL	0.03	28	C	0.03	28	C
	NBT	0.68	25	C	0.68	25	C



Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
	SBT	0.53	19	B	0.53	19	B
	SBR	0.52	20	C	0.52	20	C
Winston Churchill Blvd & Hwy 401 EB Ramp Terminal	<i>Overall</i>	<i>0.80</i>	<i>23</i>	<i>C</i>	<i>0.77</i>	<i>21</i>	<i>C</i>
	EBLR	0.79	65	E	0.79	65	E
	EBR	0.83	73	E	0.83	73	E
	NBT	0.32	9	A	0.32	9	A
	SBT	0.72	16	B	0.72	16	B
Winston Churchill Blvd & Argentia Rd	<i>Overall</i>	<i>0.82</i>	<i>38</i>	<i>D</i>	<i>0.80</i>	<i>48</i>	<i>D</i>
	EBL	0.87	84	F	0.86	81	F
	EBT	0.23	41	D	0.31	43	D
	EBR	0.11	35	D	0.34	35	D
	WBL	0.22	45	D	0.56	37	D
	WBT	0.14	50	D	0.57	50	D
	WBR	0.30	41	D	0.52	41	D
	NBL	0.56	79	F	0.83	87	F
	NBT	0.62	40	D	0.41	39	D
	NBR	0.00	0	A	0.00	0	A
	SBL	0.87	77	E	0.83	73	E
	SBT	0.26	4	B	0.69	19	B
	SBR	0.22	3	B	0.48	12	B
Tenth Line W & Argentia Rd	<i>Overall</i>	<i>0.54</i>	<i>11</i>	<i>B</i>	<i>0.94</i>	<i>23</i>	<i>C</i>
	EBL	0.01	0	A	0.01	19	B
	EBT	0.47	17	B	0.62	28	C
	EBR	0.06	13	B	0.23	21	C
	WBL	0.15	10	A	0.89	32	C
	WBT	0.20	9	A	0.55	14	B
	WBR	0.02	8	A	0.01	9	A
	NBL	0.22	23	C	0.16	24	C
	NBTR	0.54	25	C	0.67	29	C
	SBL	0.04	28	C	0.04	33	C
	SBTR	0.04	28	C	0.03	29	C
Ninth Line & Argentia Rd	<i>Overall</i>	<i>0.33</i>	<i>7</i>	<i>A</i>	<i>0.54</i>	<i>13</i>	<i>B</i>
	WBL	0.76	27	C	0.76	27	C
	WBR	0.64	24	C	0.64	24	C

Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		v/c	Delay (s)	LOS	v/c	Delay (s)	LOS
	NBT	0.48	7	A	0.48	7	A
	NBR	0.14	5	A	0.14	5	A
	SBL	0.24	13	B	0.24	13	B
	SBT	0.37	7	A	0.37	7	A
Ninth Line & Derry Rd E/Derry Rd W	<i>Overall</i>	<i>0.73</i>	<i>30</i>	<i>C</i>	<i>0.76</i>	<i>39</i>	<i>D</i>
	EBL	0.32	16	B	0.76	27	C
	EBTR	0.43	1	A	0.46	26	C
	WBL	0.19	18	A	0.43	26	C
	WBT	0.25	24	B	0.60	20	B
	NBL	0.44	41	C	0.43	32	C
	NBT	0.30	39	C	0.69	49	C
	NBR	0.24	38	D	0.30	42	D
	SBL	0.10	45	D	0.53	73	E
	SBT	0.51	50	D	0.64	55	E
	SBR	0.76	57	E	0.70	60	E
Hwy 407 NB Ramp Terminal & Derry Rd E	<i>Overall</i>	<i>0.41</i>	<i>3</i>	<i>A</i>	<i>0.58</i>	<i>8</i>	<i>4</i>
	EBT	0.59	15	B	0.65	16	B
	WBT	0.39	11	B	0.81	21	C
	NBL	0.01	19	B	0.04	14	B
	NBR	0.24	21	C	0.30	16	B
Derry Rd E & Hwy 407 SB Ramp Terminal	<i>Overall</i>	<i>0.49</i>	<i>3</i>	<i>A</i>	<i>0.65</i>	<i>9</i>	<i>A</i>
	EBT	0.54	10	B	0.51	11	B
	WBT	0.36	9	A	0.74	17	B
	SBL	0.03	21	C	0.15	14	B
	SBR	0.15	22	C	0.46	18	B
Tenth Line W & Site Access	<i>Overall</i>	-	<i>7</i>	<i>A</i>	-	<i>8</i>	<i>A</i>
	EBLR	0.02	8	A	0.01	9	A
	NBTR	0.05	7	A	0.04	7	A
	SBTL	-	-	-	-	-	-

The 2037 Total Traffic analysis results are shown to be very similar to the 2037 background traffic analysis with the intersection of Winston Churchill Blvd & Argentia Rd where the EBL and NBL is shown to operate at an LOS of F due to high delay. The proposed site access is anticipated to operate well below capacity with minimal delays.



The capacity analysis indicates that the proposed development will have minimal impact on the existing road network, where all study intersections and roadways are able to accommodate the site generate traffic at all horizon years. It is recommended that the City and Region continue to monitor the study intersections and movements nearing capacity and implement slight signal timing adjustments as required.

7 QUEUING ANALYSIS

Table 7-1 provides a summary of the 95th percentile queues derived from the Synchro analysis for all exclusive turning movements at the study intersection. Queueing analysis details are provided in **Appendix E**.

Table 7-1 Queuing Analysis Future Total Conditions

Intersection	Movement	Storage (m)	95 th Percentile Queue (m)					
			EX 2025		FT 2032		FT 2037	
			AM	PM	AM	PM	AM	PM
Winston Churchill Blvd & Hwy 401 WB Ramp (Signalized)	EBL	35	-	8	-	7	-	8
	EBR	35	-	0	-	13	-	-
	WBL	200	57	147	60	115	60	147
	WBR	160	37	28	44	112	45	29
Winston Churchill Blvd & Hwy 401 EB Ramp	EBR	190	50	97	69	181	72	100
Winston Churchill Blvd & Argentia Rd	EBL	185	93	91	79	73	72	72
	EBR	100	12	43	13	36	12	40
	WBL	85	34	93	30	78	32	84
	WBR	85	42	82	33	56	36	54
	NBL	150	21	49	16	44	29	48
	NBR	70	11	11	51	5	54	19
	SBL	145	61	51	60	77	55	76
	SBR	185	26	57	25	63	25	64
Tenth Line W & Argentia Rd	EBL	35	0	8	17	21	19	9
	WBL	60	8	55	22	68	24	76
	EBR	125	0	0	17	0	17	0
	NBL	130	3	26	3	15	24	15
	SBL	45	2	21	9	15	22	15
Ninth Line & Argentia Rd	NBR	100	8	7	27	29	30	29
	SBL	45	13	14	38	30	27	30

Intersection	Movement	Storage (m)	95 th Percentile Queue (m)					
			EX 2025		FT 2032		FT 2037	
			AM	PM	AM	PM	AM	PM
Ninth Line & Derry Rd W	EBL	90	42	69	41	83	43	83
	WBL	100	21	40	25	100	28	100
	NBL	185	37	29	42	38	42	38
	NBR	135	14	15	21	29	23	29
	SBL	105	14	25	32	39	21	39
	SBR	95	25	22	76	67	58	67
Hwy 407 NB Ramp & Derry Rd E	NBR	160	13	19	37	20	35	20
Derry Rd & Hwy 407 SB Ramp	SBR	160	10	32	18	32	15	33
Tenth Line & Site Access	EBRL	15	-	-	0	0	0	0
	NBTL	15	-	-	0	0	0	0

The 95th percentile queues for all study intersections were reviewed where auxiliary lanes are present for turning movements. The storage lengths for each auxiliary lane took into account the deceleration, storage and effective taper length for each auxiliary lane. All queues for the 2025 existing, 2032 and 2037 total traffic scenarios are shown to be accommodated with the existing auxiliary lanes during both the AM and PM peak hours. Exceptions are the westbound left turn at the intersection Tenth Line W & Argentia Rd is shown to extend past the available storage length of 60 m by 8 m and 16 m during the PM peak hour for the 2032 and 2037 total traffic scenarios respectively. At this intersection there is ability to make changes to the cycle length as the existing cycle length is only 100s. These improvements are anticipated to be able to reduce the queueing of the westbound left and have the existing auxiliary lane able to accommodate the queues.

8 PARKING AND LOADING ASSESSMENT

8.1 Parking Requirements

The parking requirements for developments in the City of Mississauga are governed by the Zoning By-law 0225-2007. The required parking spaces for a warehouse are 1.1 spaces per 100 m² of GFA if the total GFA is over 6,975 m², and 0.6 spaces per 100 m² for the additional GFA. The required parking space for the site is outlined in **Table 8-1**.

Table 8-1 Required and Proposed Parking Supply

Land Use	Units/ Density	Required Parking Supply	Proposed Parking Supply
Industrial Building DC 4	26,823 m ²	196	278
Industrial Building DC 5	30,503 m ²	218	218
Total Number of Parking Spaces		414	496

As the total proposed parking spaces exceeds the total minimum required parking supply, the by-law requirement is met.

8.2 Barrier-Free Parking

Under Zoning By-law 0225-2007 Section 3.1.3 requires accessible parking spaces to be provided on site. For a non-residential site with 101-200 required parking spaces, 1 space plus 3% of the total required parking spaces must be accessible. For a site with 201-1000 required total parking spaces, the required number of barrier-free parking spaces is 2.0 plus 2% of the required number of parking spaces. **Table 8-2** shows the proposed number of accessible parking spaces.

Table 8-2 Required Accessible Parking Spaces

Use	Barrier- free Parking Supply Rate	Minimum Barrier- free Parking Supply	Proposed Barrier-free Parking Supply
Industrial Building DC 4	1 + 3% required parking spaces	$1+3\%*196 = 7$	8
Industrial Building DC 5	1 + 3% required parking spaces	$2+2\%*218 = 7$	8
Total Number of Parking Spaces		14	16

Accordingly, the proposed barrier-free parking supply of 16 parking spaces meets the minimum parking supply required.

8.3 Electric Vehicle Parking Spaces

In accordance with Zoning By-law 0225-2007, Table 3.1.1.12 (Line 6.0), non-residential uses identified in Table 3.1.1.12 are required to provide electric vehicle parking spaces at a rate of 10% of the total required parking spaces or 1 space, for whichever is greater. **Table 8-3** shows the proposed number of electric vehicle parking spaces.

Table 8-3 Required Electrical Vehicle Parking Spaces

Use	Electrical Vehicle(EV) Parking Supply Rate	Minimum EV Parking Supply	Proposed EV Parking Supply
Industrial Building DC 4	10% or 1 space for whichever is greater	20	20
Industrial Building DC 5	10% or 1 space for whichever is greater	22	22
Total Number of Parking Spaces		42	42

Accordingly, the proposed EV supply of 42 parking spaces meets the minimum parking supply required.

8.4 Bicycle Parking Requirements

The site is subject to the City of Mississauga Zoning By-law 0225-2007 and requires a total of 61 bicycle parking spaces. The requirements and provision of bicycle parking are summarized in **Table 8-4** below.

Table 8-4 Required Bicycle Parking Spaces

Use	Bicycle Parking Supply Rate	Minimum Bicycle Parking Supply	Proposed Bicycle Parking Supply
Industrial Building DC 4	CLASS A 0.1 spaces per 100 m2 GFA - non-residential CLASS B 2.0 Spaces	27 Class A 2 Class B	27 Class A 10 Class B
Industrial Building DC 5	CLASS A 0.1 spaces per 100 m2 GFA - non-residential CLASS B 2.0 Spaces	30 Class A 2 Class B	31 Class A 2 Class B

Accordingly, the proposed bicycle parking supply spaces meet the minimum parking supply required.

8.5 Loading Assessment

According to Zoning By-law 0225-2007 Section 3.1.4.3, developments with a GFA greater than 14,000 m² require 3 loading spaces plus 1 additional space for each 9,300 m² GFA. As the proposed

site both exceed the minimum GFA of 14,000 m², additional loading space will be required for every 9,300 of additional GFA. Loading space requirements are provided in **Table 8-5**.

Table 8-5 Loading Spaces Requirements and Proposed Supply

Buildings	Loading Spaces Rate	Minimum Required Loading Spaces Supply	Proposed Loading Space
Industrial Building DC 4	3 spaces +1 per 9,300 m ² over 14,000 m ²	4	6 or more
Industrial Building DC 5	3 spaces +1 per 9,300 m ² over 14,000 m ²	4	6 or more

The proposed supply meets the minimum required number of loading spaces.

The proposed loading space dimensions meet the by-law requirements of a loading space that is rectangular area with a minimum width of 3.5 m and a minimum length of 9.0 m.

9 SITE PLAN REVIEW

9.1 Access Review

The access to the proposed industrial development is to be provided via Argentia Road. The site is accessed via an existing full move driveway located on Argentia Road currently servicing the adjacent development, which extends northward into the site and provides primary access to the proposed industrial warehouse. As the site access is currently operational, supporting an existing warehousing development, the proposed site access off of Argentia is anticipated to support the proposed development without issue.

9.2 Site Circulation Review

Site access will be provided with one full moves unsignalized intersections.

Vehicle maneuvering diagrams have been prepared for the proposed site. This includes a review of heavy vehicles, waste collection, passenger vehicles and fire route access. The vehicle maneuvering diagrams are provided in **Appendix F**.

9.2.1 Loading Vehicles

Loading vehicles turning movements for the site were simulated using Transportation Association of Canada (TAC) WB-20 tractor-trailer vehicles. Truck turning movements indicate that wb-20 can ingress, circulate to the loading area, and egress the site for the subject site without conflict.

9.2.2 Waste Collection Vehicles

For this site, the waste collection vehicle is a Front-End Waste Truck, which can access the site and maneuver in the waste collection area without conflict. The waste collection truck was simulated using a Front-End Waste Truck model from the Peel Region.

9.2.3 Passenger Vehicles

Passenger vehicle turning movements were simulated using a Transportation Association of Canada (TAC) passenger vehicle. The simulations indicate that passenger vehicles can access the site and circulate within the parking areas without conflict.

9.2.4 Fire Route Vehicle

Emergency fire truck vehicles were simulated using a Mississauga Pumper Fire Truck design vehicle. Turning movements indicate that the selected fire truck vehicle can ingress, circulate and egress the site.

10 PEDESTRIAN CIRCULATION PLAN

A pedestrian Circulation Plan is proposed to guide the provisions to encourage people to walk more. When people walk more, they are more physically fit and have fewer health problems. Walking more and driving less also reduces greenhouse gas emissions and results in other environmental benefits. In addition, good pedestrian design brings economic benefits as walkable places attract consumers. Since all trips begin and end with an individual walking, providing a well-designed pedestrian network within a proposed development is crucial. Major considerations in developing walkable, connected neighborhoods, and creating a pedestrian oriented environment include:

- ▶ Creating safe pedestrian facilities at all pathways and while crossing intersections;
- ▶ Providing adequate separation between pedestrian and vehicular facilities;
- ▶ Remaining sensitive to the needs of persons with physical challenges; and
- ▶ Completing missing pedestrian linkages within and immediately adjacent to the development to create connectivity.

The subject site has legal frontage on Argentia Road, which provides pedestrian facilities along the road.

The proposed site plan includes sidewalks along the exterior of each building, with the exception of the loading areas. While direct pedestrian connections to the site are limited, the adjacent existing development to the south provides an opportunity for pedestrian access to the proposed industrial development. Additionally, there is opportunity for pedestrians to access the site using Tenth Line through the adjacent development (the data center). However, as Tenth Line lacks formal pedestrian facilities, access off of Tenth Line will be the result of informal roadside routes. Once within the site, pedestrians will utilize the proposed internal sidewalk network, though some crossing of parking areas and internal drive aisles may be required. Given the industrial context and surrounding land uses, the proposed pedestrian connectivity is considered consistent with adjacent properties. It is recommended that designated pedestrian crossings be incorporated in future site plan updates to enhance pedestrian safety across internal vehicular travel lanes.

Appendix H summarizes potential pedestrian paths as well as highlights the proposed pedestrian facilities.

11 COMMUNITY IMPACT

The subject site is located within an established employment/industrial area of the City of Mississauga. Surrounding land uses consist predominantly of industrial, warehouse, logistics, and related commercial operations. There are no immediately adjacent residential neighborhoods in close proximity to the site.

The traffic generated by the proposed development during the weekday AM and PM peak hours represents a minor increase relative to the existing and future background traffic volumes on the adjacent roadway network. The surrounding arterial and collector roadways are designed to accommodate employment-area traffic, including commercial vehicles, and have sufficient capacity to accommodate the forecast site-generated trips.

Based on the analysis completed for the Future Total (2032 and 2037) scenarios:

- Traffic increases attributable to the development are incremental in nature.
- Overall intersection operations remain acceptable under Future Total conditions.
- No significant adverse operational or capacity-related impacts are anticipated on the surrounding road network.

Given the industrial context of the area and the absence of nearby residential neighborhoods, the incremental traffic associated with the development is not expected to result in measurable community disruption.

Should Public Information Centers (PICs) or community engagement sessions be undertaken as part of the development review process, any traffic-related comments or concerns raised by stakeholders will be reviewed and addressed in this section of the final report, as required by the City of Mississauga. Potential concerns related to traffic operations, safety, truck activity, or access configuration will be evaluated in coordination with City staff, and appropriate mitigation measures will be considered, where warranted.

12 TRANSPORTATION DEMAND MANAGEMENT

12.1 TDM Objectives

Development of site-specific Transportation Demand Management Plan (TDM) measures for the proposed development is based on a four-year planning horizon. Therefore, in the context that the primary objective is to reduce single occupancy vehicle use, the plan will review opportunities to set realistic targets for increased use of carpooling, transit, cycling, and walking trips. This plan recommends measures with a pre-and post-baseline commuter survey of all employees.

Transportation Demand Management (TDM) refers to a variety of strategies to reduce congestion, minimize the number of single-occupant vehicles, encourage non-auto modes of travel, and reduce vehicle dependency to create a sustainable transportation system. TDM strategies have multiple benefits including the following:

- Reduced auto-related emissions to improve air quality
- Decreased traffic congestion to reduce travel time
- Increased travel options for businesses and commuters
- Reduced personal transportation costs and energy consumptions

The combined benefits listed above will assist in creating a more active and liable community through improvements to overall active transportation facilities for businesses and the surrounding community. Typical TDM measures include:

1. Carpool/vanpool ride sharing
2. Bicycle and pedestrian programs
3. Promotion of public transit
4. Parking supply and management strategies

Establishment of Transportation Management Associations (TMA's) in employment areas and car sharing organizations

All recommended and proposed TDM measures are noted as the responsibility of the owner.

12.2 City and Region TDM Objectives

A Transportation Demand Management (TDM) Plan is proposed to guide the provision of viable alternative personal transportation options beyond the private, single-occupant vehicle (SOV). Consistent with the Region of Peel and City of Mississauga Official Plan, this TDM Plan intends to support the development by outlining TDM measures and a suite of strategies under consideration

to promote the use of more active and sustainable transportation modes, respond to the mobility needs of employees and patrons of the site, and reduce dependence on the private automobile, especially SOV travel.

12.2.1 City of Mississauga Official Plan

Per the City of Mississauga Official Plan Policy 8.5 “Transportation Demand Management (TDM) measures encourage people to take fewer and shorter vehicle trips to support transit and active transportation choices, enhance public health and reduce harmful environmental impacts. TDM is most effective when supported by complementary land use planning, good urban design and transit improvements.” Typical TDM strategies reduce vehicle dependency, single occupant vehicle travel, trip distance and time and peak period congestion. Typical TDM measures highlighted in the City’s Official Plan include:

- To encourage TDM strategies that promote transit use and active transportation, and reduce vehicle dependency, single occupant vehicle travel, trip distance and time and peak period congestion.
- To manage parking in intensification area to encourage the use of alternative modes of transportation and the reduction of vehicular congestion.
- To encourage land uses permitted by this Plan that make efficient use of the transportation system and parking facilities during off-peak hours.
- In appropriate areas, to encourage a fee for parking and the separation of parking costs from other costs, such as transit fares, building occupancy and residential unit prices.

Prior to approval of development applications, particularly those that will generate significant employment opportunities, a TDM plan may be required that demonstrates, among other things, the following:

- building orientation that supports transit service.
- minimize distance between main building entrances and transit stations/stops.
- development that is integrated into the surrounding pedestrian and cycling network.
- parking facilities designed to provide safe and efficient access for pedestrians and cyclists emanating from the surrounding transit and active transportation network; and secure, conveniently located, weather protected, on-site bicycle storage facilities, and associated amenities such as showers, change rooms and clothing lockers.

12.2.2 Region of Peel Official Plan

Policy 5.9.9 of the Region of Peel Official Plan (OP) states “Growth in population and employment in Peel Region has led, and will continue to lead, to increased travel demand through the

construction of new roads and the widening of existing roads. Such “supply side” solutions, however, will not be enough in the future. Exclusive dependence on roads is neither sustainable nor desirable. It is necessary to also consider “demand side” solutions, such as Transportation Demand Management measures. While TDM alone cannot be expected to meet the future growth in demand, it is an important component of the range of solutions that will be needed to meet forecast travel demand.”

Peel Region TDM objectives include:

- To reduce auto dependency by promoting sustainable modes of transportation.
- To provide a range of transportation services to meet the diverse needs of the population.
- To maximize the capacity of the transportation system to move both people and goods.

It is the policy of Regional Council to:

Encourage area municipalities to:

- Provide land uses and site design which foster the use of sustainable modes of transportation.
- Promote infrastructure to encourage teleworking.
- Promote a balance of jobs and housing in communities to reduce the need for long distance commuting.
- For new development in designated greenfield areas, create street configurations, densities and an urban form that support walking, cycling and the early integration and sustained viability of transit services and create high quality public open spaces with site design and urban design standards that support opportunities.

Work with all levels of the public and private sectors to develop programs that place primary consideration on the reduction or elimination of trips and the increased use of sustainable modes of transportation and to develop programs for implementing these and other travel demand management strategies.

Work with the area municipalities, local Transportation Management Associations and school boards to evaluate and measure the progress of TDM programs and to develop new innovative strategies and initiatives.

Work with the public and private sectors to develop and support outreach and marketing programs that promote sustainable transportation alternatives, such as active transportation and transit, to affect changes in peoples’ travel behavior and to encourage increased use of these alternatives.

Work with the area municipalities to promote and support the development and implantation of TDM strategies and programs within the Regional and area municipal governments.

Encourage area municipalities, local Transportation Management Associations and the private sector to develop parking management strategies that make more efficient use of parking resources and that encourage the use of sustainable modes of transportation.

Encourage area municipalities to update their parking and zoning by-laws to support and facilitate transportation demand management measures.

12.2.3 Region of Peel Sustainable Transportation Strategy

The Sustainable Transportation Strategy (STS), approved by Regional Council in February 2018, sets a goal of a 50% sustainable mode share by 2041.

The Peel Region Sustainable Transportation Strategy provides a framework for how the Region will:

- Increase the current 37% share of trips by walking, cycling, transit, carpooling and telework in Peel Region, to achieve a 50% sustainable mode share by 2041.
- Accommodate growth in a way that prioritizes environmental, societal and economic sustainability.
- Contribute to a Regional transportation system that is safe, convenient, efficient, multi-modal, well- integrated and sustainable.

The Region's STS includes "ambitious mode share targets for transit, walking, cycling, carpooling and telework in 2041, aiming to maximize the role of sustainable modes in serving the Region's projected 40% growth in travel demand. Achieving these targets will require substantial improvements in major transportation infrastructure (notably facilities for rapid transit, walking and cycling) and services (notable regional and local public transit services, and maintenance of walking and cycling facilities)".

The STS has two accompanying implementation plans, one focusing on active transportation and another focusing on transportation demand management. With their 2018-2022 timelines, the implementation plans lay out the short-term priorities of the STS, such as:

- The locations of new and upgraded walking and cycling infrastructure.
- Encouraging and supporting cycling and walking to and from schools, transit hubs, and other community destinations.
- Implementation of new carpool lots and targeted carpooling promotion.
- The development of a teleworking toolkit.
- Guidance for new development.

12.3 Proposed TDM Measures

The TDM Plan provides measures as they relate to the physical site plan that will reduce reliance on the automobile at the site and in the area by providing several strategies as part of the site development and as part of their day-to-day operations.

12.3.1 Carpooling

Carpool parking is proposed as a way of encouraging the reduction of single-occupancy vehicle use. Among designated car-pool spaces, the following additional measures are recommended to encourage alternatives to SOV use:

- The provision of car-share parking spaces to accommodate a car-share service provider.
- The provision of additional bicycle parking spaces; and
- The introduction of a ride-share program.

It is recommended the subject site provide such TDM measures to meet the objectives and targets to reduce vehicular travel demand and encourage cycling and walking.

12.3.2 Local Transit Consideration

As discussed in Section 3.2 there are several transit routes operating in the vicinity of the subject area including the Go Transit, Mississauga MiWay Transit, Brampton Transit Route, and Milton Transit. The presence of these transit services should be communicated to new employees of the development as part of an information brochure on available transportation alternatives.

12.3.3 Rideshare Services

With ride hailing services like Uber, Lyft and other emerging competitors, it should be noted these platforms would provide employees with flexible alternatives to transit, cycling and driving for short, local trips. For future site employees who may not own or have access to a car, rideshare services may be used to reach a local transit station, home, or needed services. This is also an option for those who may not be able to participate in active transportation options and require a door-to-door service, at potentially lower costs than a traditional taxi service.

12.3.4 Information Brochure

The TDM opportunities would benefit from an additional measure of preparing a customized commuter options brochure for employees. This brochure would contain details on a variety of travel options such as: local/regional transit, pedestrian trails, cycling, and transit facilities and carpool options. The package may include a community map, Mississauga Transit route maps, and GO Transit route map and schedules.

People who cycle for recreational purposes are good groups to target as potential commuter cyclists. They have access to a bicycle and may already be familiar with the City's network of cycling and trail facilities. Many commuters, however, may have simply never tried cycling and could be unfamiliar with appropriate routes, techniques and advice for commuting by bike. This could be reinforced through a Bicycle Network Way-finder Map for commuters that could be included in the information package.

Short-distance commuters could be targeted with messages focusing on the convenience, cost and health benefits of walking or cycling to work. In addition, practical advice regarding route selection, bike parking, and remaining active in cold or wet weather would be useful and effective. This information could be provided to employees during regular communications throughout the year by the City.

Elderly commuters as well as people with physical limitations may be prevented from getting to their destination on their own. In these instances, carpooling, car-share, and shuttle services are important transportation options. The marketing of these opportunities and availability of the services should be provided in further detail to better inform these individuals.

12.4 TDM Monitoring and Measures of Success

Baseline Commuter Survey

The City of Mississauga, in collaboration with the future potential employers of the site, should conduct a confidential transportation survey amongst all employees in the proposed development. The comprehensive survey will provide a measure of current commuter traffic patterns, modes of transportation, behaviors and perceptions for the area. Results will also assist in identifying the demand for sustainable transportation options and opportunities to provide better site access and reduce auto trips (such as, an employer initiated car-pooling program).

Follow-Up Commuter Survey

The City of Mississauga, in collaboration with future potential employers, should conduct a follow-up TDM survey two years after the baseline commuter survey. Results will identify areas of success and improvement for sustainable options for the development and surrounding area. A revised work plan could be developed with strategies to improve sustainable transportation that meet the needs of employers and employees.

13 CONCLUSIONS AND RECOMMENDATIONS

The conclusions and recommendations for the analysis associated with the proposed development are as follows:

The analysis of the proposed development indicates that the existing road network generally performs well. However, certain intersections experience challenges during peak traffic periods. Specifically, the intersection such as Winston Churchill Blvd & Argentia Rd where the EBL is shown to operate at an LOS of F during the am peak hour due to high delay.

The expected traffic generated by the proposed development includes a total of 98 site trips, consisting of 75 inbound and 23 outbound trips, during the AM peak hour. During the PM peak hour, 28 inbound and 73 outbound net auto site trips are predicted, totaling 101 trips.

During future background and future total (2032 and 2037), the overall road network is projected to continue operating effectively, with minor revisions to signal timings able to aid in the critical operations.

TYLin recommends that the Peel Region and the City of Mississauga monitor the intersections with identified operational concerns, the intersection of Winston Churchill Blvd & Argentia Rd and the intersection of Tenth Line W & Argentia Rd. Ongoing monitoring will help assess traffic conditions and ensure that any capacity constraints are effectively addressed.

- ▶ The addition of site traffic to/from the proposed development does not appear to have significant impact on the operations of nearby intersections when compared to the future background conditions.
- ▶ There are no issues with the site's proposed access or internal layout based on the assessed design vehicle and relevant standards.
- ▶ The site meets the required number of loading spaces, barrier free parking spaces, City's zoning by-law. A site-specific zoning exception is proposed for a number of parking spaces appropriate to industrial warehouse use. Please see supporting parking study.
- ▶ The evaluation of sight distance requirements at all locations have been met
- ▶ It is recommended that the TDM measures mentioned within this report are followed to ensure that the site can provide and guide the provision of viable alternative personal transportation options beyond the private, single-occupant vehicle (SOV) as per the City and Regions Policies.



Appendix A: **Pre-Consultation Correspondence**

Appendix A

Certification Form

Individuals submitting reports will be responsible for all aspects of development-related transportation assessment and reporting, and undertaking such work, in accordance and compliance with the City of Mississauga’s Official Plan, Transportation Master Plan, and Transportation Impact Study Guidelines.

By submitting the attached report (and any associated documents) and signing this document, I acknowledge that:

- I have reviewed and have a sound understanding of the objectives, needs, and requirements of the City of Mississauga’s Official Plan, Transportation Master Plan, and the Transportation Impact Study Guidelines as they apply to this submission;
- I have sound knowledge of industry standard practices pertaining to the preparation of development-related transportation study reports;
- I have substantial experience (more than five years) in completing development-related transportation studies and strong background knowledge of the transportation planning and engineering principles underpinning these studies; and
- I am registered as a Professional Engineer (P.Eng.), Licensed Engineering Technologist (LET), Certified Engineering Technologist (C.E.T.), or Registered Professional Planner (RPP) in good standing in the Province of Ontario with specific training in transportation planning and engineering.

Dated at _____ this _____ day of _____, 20____.
(City) (Day) (Month) (Year)

Name: _____

Professional Title: _____

Signature:  _____

Office Contact Information (Please Print)

Address: _____

City/Postal Code: _____

Telephone/Extension: _____

E-mail Address: _____

From: James Emerson <James.Emerson@mississauga.ca>
Sent: Monday, July 28, 2025 3:08 PM
To: William Sherwin
Cc: Michael Dowdall; Bruce LI; Trans Projects
Subject: RE: 7564 10th Line Industrial Development TIS - Terms of Reference
Attachments: [Appendix B Pre-Study Consultation Checklist - 7564 10th Line TIS \(003\) APPROVED.pdf](#); [Appendix A Certification Form - TEMPLATE.pdf](#)

[CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.]

Hi William,

Please find attached stamped and approved ToR for the proposed development, which encompasses City comments. Other items to note:

- **Certification Form** - The Transportation Consultant must complete, sign, and seal (if appropriate) the attached Certification Form from the City's TIS Guidelines (2022) and append the document to the report to ensure compliance with qualification requirements. The TIS Guidelines can be found at <https://www.mississauga.ca/wp-content/uploads/2023/03/CMississauga-TIS-Guidelines-Version-5.1-Dec-2022.pdf>. It must be ensured that the report conforms to the City's TIS Guidelines.
- **Growth Rates/Traffic Data** - Please contact Tyler Xuereb from the City's Transportation Planning Section (tyler.xuereb@mississauga.ca, Ext. 4783) to confirm growth rates and/or obtain traffic data for the study area roadways. **Please include the correspondence with the city confirming the growth rates in the TIS appendices.**
- **Signal Timing Plans** - Signal timing plans for signalized intersections under the City's jurisdiction can be obtained from Jim Kartsomanis (Jim.Kartsomanis@mississauga.ca, Ext. 3964). **Please include the correspondence with the city confirming the timing plans in the TIS appendices.**
- **TOR Document and Correspondence** - Please include the TOR approved by the city in the TIS appendices as well as any relevant additional correspondence with Traffic Planning staff, if applicable.

Regards,



James Emerson
Traffic Planning Technologist
T 905-615-3200 ext.3043

james.emerson@mississauga.ca

[City of Mississauga](#) | Transportation and Works Department,
300 City Centre Drive | Mississauga ON | L5B 3C1

Please consider the environment before printing.

From: William Sherwin <william.sherwin@tylin.com>

Sent: Tuesday, July 22, 2025 10:52 AM

To: James Emerson <James.Emerson@mississauga.ca>

Cc: Michael Dowdall <michael.dowdall@tylin.com>; Bruce LI <bruce.li@tylin.com>; Ryan Au <Ryan.Au@mississauga.ca>

Subject: [EXTERNAL] 7564 10th Line Industrial Development TIS - Terms of Reference

[CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.]

Hi James/Ryan

We hope this email finds you well. T.Y. Lin International Canada Inc. (TYLin) is pleased to present this draft Terms of Reference to prepare a Traffic Impact Study (TIS) in support of Site Plan Approval (SPA) Application for the proposed Industrial development on the lands municipally known as 7564 Tenth Line West, Mississauga, Peel Region.

Terms of Reference

The latest iteration of the site plan includes 3 buildings; Industrial Building DC4 (26,823 m² GFA) Industrial Building DC 5 (30,503 m² GFA) and a Data Centre (20,338 m² GFA). The site plan includes two site access located off 10th Line West, the northern site access is to serve the Data Centre and southern site access will be through an easement with the property to the south of the site and extension of the existing laneway. The proposed development is anticipated to include a total of 536 parking spaces, inclusive of 20 accessible parking spaces and 45 Electric vehicle spaces.

In order to properly scope this project, we ask the City of Mississauga to confirm the proposed scope of work and provide comments as needed.

1. Study Intersections:

- Winston Churchill Boulevard / Highway 401 Eastbound Ramp Terminal;
- Winston Churchill Boulevard / Highway 401 Westbound Ramp Terminal;
- Winston Churchill Boulevard / Argentina Road;
- Tenth Line West / Argentina Road;
- Ninth Line / Argentina Road;
- Derry Road / Highway 407 Northbound Ramp Terminal;

- Derry Road/Highway 407 Southbound Ramp Terminal;
- Tenth Line West/ North site access; and
- Tenth Line West/ South site access.
- Proposed West Site Access & future Winchester Drive Extension (unsignalized)

2. Existing Traffic Data Collection

- Traffic data for the study intersections will be obtained through a sub consultant specializing in traffic data collection.
- It should be noted that we are proposing to obtain Summer Count Data. Due to the industrial location of the site and surrounding area, and location in relation to educational facilities that summer count data will be acceptable for this project.
 - Ryan I believe Michael has already spoken to you about this to confirm.

Please confirm if the proposed plan for counts is acceptable.

3. Study Horizon years – in compliance with the City of Mississauga’s TIS Guidelines and MTO, the following study horizon years are proposed.

- Existing Year (2025)
- Buildout Year (assumed 2027 to be confirmed)
- 5-Year Horizon (2032)
- 10-year horizon (2037)

Currently, the TIS assume the proposed Sites will be constructed concurrently under one phase. TYLin acknowledges that part of the site is within the MTO Area of Interest for the new proposed Hwy 413 to the north of the site. As such should the development need to be phased, an interim/ultimate scenario will be required. This will be confirmed with MTO corridor.

4. Growth rates – will be determined based on available data including travel surveys, census data and Planning documents. As such TYLin proposed the following growth rates per roadway (All MTO ramp terminals growth rates will be confirmed with MTO)

- Winston Churchill Boulevard 1% compounded annually
- Tenth Line 0.5% compounded annually
- Argentia Road 0.5% compounded annually
- Ninth Line 0.5% compounded annually
- Derry Road 1% compounded annually

5. Based on the City of Mississauga’s Planning Information Hub and Active development applications website indicated that no active development applications are within the area of impact of the proposed site – Please confirm.

6. Obtain from the City any potential/committed future road or intersection improvements, that will be on-stream within the development horizon of 7564 Tenth Line West. This information will inform the 'future background' traffic condition against which to measure site traffic impacts.
7. Derive future background traffic volumes by applying the growth rate and background traffic to existing conditions. A review of traffic operations under future background conditions will be completed to assess if any remedial measures would be required at the study intersections to support the forecasted traffic demand prior to the development implementation.
8. Trip Generation – The site trip generation estimates will be confirmed as part of the study based on the 11th Edition ITE Trip Generation Manual.
9. Trip Distribution/Assignment will be distributed and assigned to the surrounding road network using Transportation Tomorrow Survey (TTS) data and engineering judgement.
10. Create a traffic operations model (Synchro/SimTraffic) for the existing study intersections as well as proposed site accesses to evaluate the effects of the proposed development on the study area.
11. Prepare peak hour operational analyses to investigate and document the impacts of the proposed development. This will include a review of intersection turning movement delays, volume to capacity ratios, and vehicular queuing. We will report any operational deficiencies and recommend mitigating measures, if necessary, to improve traffic operations, including recommending lane configuration changes, turn lane requirements and/or traffic control alterations.
12. Conduct traffic signal warrants at all non-signalized intersections and site accesses based on the future traffic conditions.
13. Conduct a site visit to confirm the existing traffic operations and infrastructure within the study area.
14. Review Multi-Modal LOS for the study area intersections as per City of Mississauga's Guidelines.
15. Completion of a Transportation Demand Management Plan to support non-auto mode of travel in accordance with the City of Mississauga's guidelines. This will be included as a separate chapter within the TIS
16. Completion of a Pedestrian Circulation Plan to ensure it is designed to minimize pedestrian and cyclist conflict points while maintaining pedestrian connectivity. This will be included as a separate chapter within the TIS
17. Review of site circulation for the site accesses and internal driveways based on relevant applicable design criteria.

18. Conduct a Parking Study based on the in-force Zoning By-law requirements. Should a parking reduction be contemplated for the site, a Parking Justification Study will also be conducted.

Furthermore, see below a list of items and data (if available): we kindly request from the City for use in our Traffic Impact study:

1. Historic turning movement counts at study area intersections that are within City's jurisdiction (from the list above)
1. Any Average Annual Daily Traffic (AADT) volumes along road segments in the study area
2. Capital roadworks planned on study area network (and when to expect construction)
3. Future background development application details (including TIS reports) for any noted developments identified.

Thank you in advance for your attention to this matter. We look forward to your comments on the preceding scope of work. Should you have any questions about this email, please do not hesitate to contact myself.

William

William Sherwin

TRAFFIC ENGINEER - PROJECT MANAGER

T +1 289.902.0519

william.sherwin@tylin.com

TYLin

Suite 315

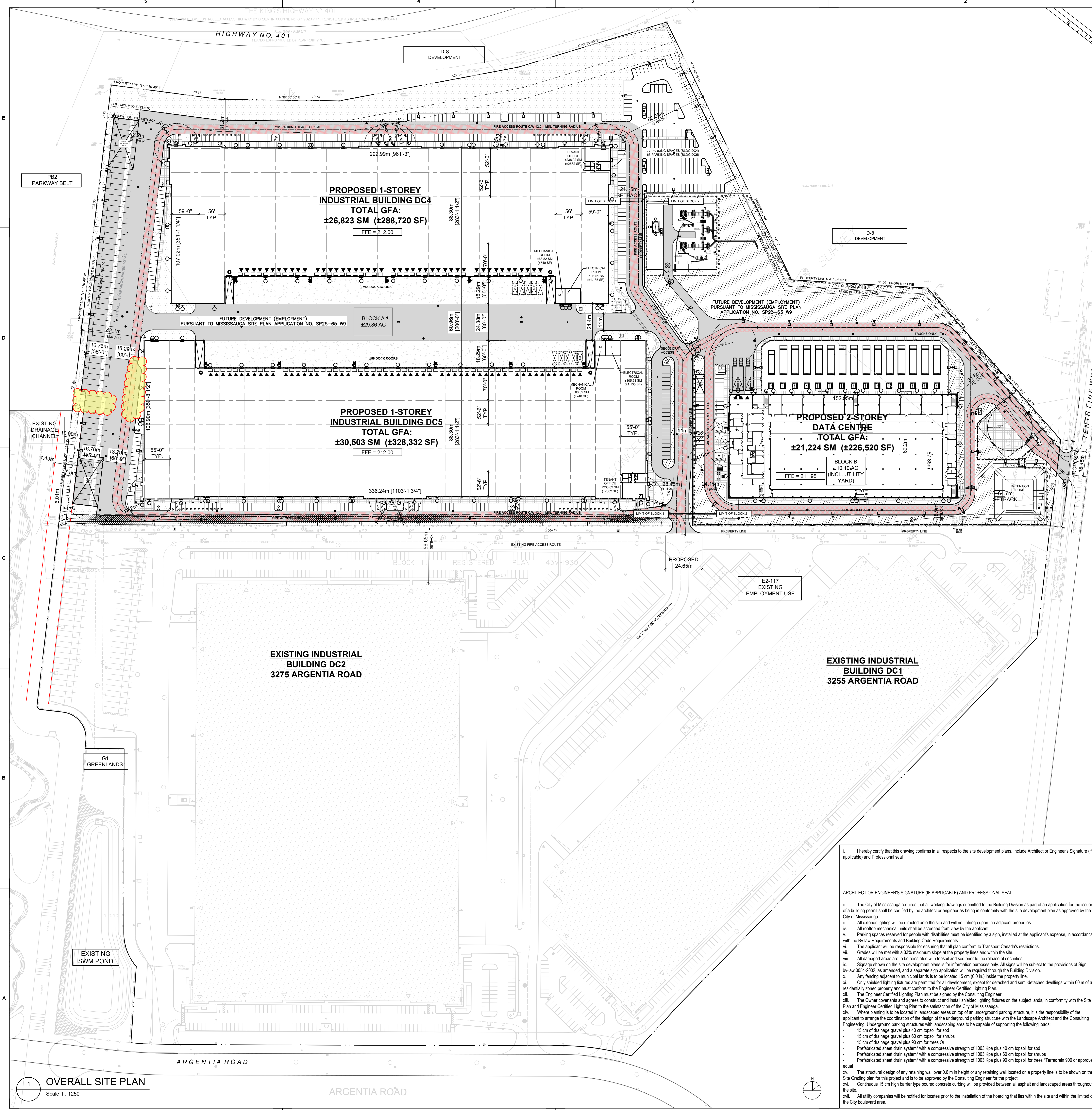
3381 Steeles Avenue East

Toronto, ON M2H 3S7, Canada

TYLin.com |    



Appendix B: Site Plan



PROJECT DATA				
7564 TENTH LINE WEST				
ZONING CATEGORY	EMPLOYMENT - E2 (EXISTING D-8)			
PROPOSED USE	INDUSTRIAL BUSINESS			
CITY OF MISSISSAUGA ZONING BY-LAW NO. 0225-2007 PART 8 TABLE 8.2.1				
ZONING REGULATIONS	REQD	EXISTING BLDG DC1	EXISTING BLDG DC2	BLDG DC4
MIN. LOT FRONTAGE	30	(M)	(M)	38
MIN. HEIGHT	N/A			16.155
MIN. FRONT YARD BUILDING SETBACK	7.5	+7.5	+7.5	+7.5
MIN. INTERIOR SIDE YARD BUILDING SETBACK (SOUTH ADJACENT TO HWY 401)	7.5	+7.5	+7.5	17.1
MIN. INTERIOR SIDE YARD BUILDING SETBACK (NORTH ADJACENT TO HWY 401)	7.5	+7.5	+7.5	31.2
MIN. REAR YARD BUILDING SETBACK	7.5	+7.5	+7.5	42.2
SITE AREA AND COVERAGE				
GROSS SITE AREA	(M ²)	345,112.27	(AC)	85.27
BLOCK A: INDUSTRIAL LAND (BLDG DC4 & DC5)		120,843.30		29.86
PROPOSED				
PROPOSED INDUSTRIAL BUILDING DC4	(M ²)	26,823.00	(SF)	286,720.37
PROPOSED INDUSTRIAL BUILDING DC5		30,503.00		328,331.54
PARKING REQUIREMENTS (0225-2007 PART 3 TABLE 3.1.2.2)				
WAREHOUSE DISTRIBUTION FACILITY				
- 11 SPACES PER 1000 GFA UP TO 8.075 M ² GFA				
- 88 SPACES PER 1000 GFA OVER 8.075 M ² GFA				
MIN. PARKING SPACE DIMENSIONS	STANDARD - 2.5m x 5.2m			
MIN. AISLE WIDTH	7.0m			
PROPOSED				
PROPOSED INDUSTRIAL BUILDING DC4		278		196
PROPOSED INDUSTRIAL BUILDING DC5		218		218
ACCESSIBLE PARKING SPACES				
PROPOSED INDUSTRIAL BUILDING DC4		8		7
PROPOSED INDUSTRIAL BUILDING DC5		8		8
ELECTRIC VEHICLE PARKING SPACES (1 EV CHARGER PER 1000 GFA)				
PROPOSED INDUSTRIAL BUILDING DC4		20		20
PROPOSED INDUSTRIAL BUILDING DC5		22		22
BICYCLE PARKING REQUIREMENTS (0225-2007 PART 3 TABLE 3.1.6.4)				
PROPOSED				
	CLASS A	CLASS B	CLASS A	CLASS B
PROPOSED INDUSTRIAL BUILDING DC4	27	2	6	4
PROPOSED INDUSTRIAL BUILDING DC5	31	2	6	4
MIN. BICYCLE PARKING SPACE DIMENSIONS				
	1.8m x 0.8m			
LOADING SPACES				
PROPOSED INDUSTRIAL BUILDING DC4		+6		
PROPOSED INDUSTRIAL BUILDING DC5		+6		
LANDSCAPE AREA				
				6
PAVED AREA				
				6

PETROFF
PETROFF PARTNERSHIP ARCHITECTS
10 AVIVA WAY SUITE 400 MARKHAM, ONTARIO L6G 0G1
T 905.470.7000 F 905.470.2500
www.petroff.com

PROJECT LOCATION

LEGAL DESCRIPTION

FOR LEGAL SURVEY INFORMATION REFER TO: PART OF LOT 14 CONCESSION 10, NEW SURVEY GEOGRAPHIC TOWNSHIP OF TRAFALGAR CITY OF MISSISSAUGA REGIONAL MUNICIPALITY OF PEEL PREPARED BY GENESIS LAND SURVEYING INC., 10 FOUR SEASONS PLACE, 10TH FLOOR, TORONTO, ON M9B 6H7 DATED OCTOBER 16, 2024.

SITE SPECIFIC ZONING TO BE VERIFIED UPON CONSULTATION WITH CITY OF MISSISSAUGA. LAYOUT IS SUBJECT TO IMPLEMENTATION OF ENVIRONMENTAL, STORM WATER MANAGEMENT, ETC. REQUIREMENTS UPON CONSULTATION WITH AUTHORITIES HAVING JURISDICTION.

ADDITIONAL SITE WORKS

NOTE: FOR LANDSCAPE AND SITE FURNITURE INFORMATION, REFER TO DRAWINGS BY MHBC LANDSCAPE.

FOR GRADING AND SERVICING INFORMATION, REFER TO DRAWINGS BY MTE CONSULTANTS.

FOR SITE PHOTOMETRIC AND ELECTRICAL INFORMATION, REFER TO DRAWINGS BY HAMMERSCHLAG & JOFFE.

FOR TRAFFIC SIGNAGE AND DESIGN REFER TO DRAWINGS BY TYLIN.

NOTE: FIRE ACCESS ROUTE TO BE DESIGNED TO SUPPORT A LOAD OF NOT LESS THAN 11.363 KG PER AXLE AND HAVE A CHANGE IN GRADIENT OF NOT MORE THAN 1 IN 12.5 OVER A MINIMUM DISTANCE OF 15M.

ROUTE TO BE DESIGNATED AS PER BYLAW 1036-81 AS AMENDED

REV #	DATE	REVISION TITLE
1	AUG 15, 2025	ISSUED FOR SPA
2	MAR 4, 2026	ISSUED FOR SPA
3	MAR 25, 2026	ISSUED FOR SPA RESUBMISSION

PROJECT NO: 25026 00

DRAWN BY: TY

CHECKED BY: RCB

NOT RELEASED FOR CONSTRUCTION

RELEASED FOR CONSTRUCTION

PROJECT TITLE:

00 TENTH LINE WEST, MISSISSAUGA, ON
TOR00394
INDUSTRIAL DEVELOPMENT

PROLOGIS

Prologis Inc. (Canada)
185 The West Mall, Suite 700, Toronto
647-258-2600
Tony Nguyen: tnguyen4@prologis.com
https://www.prologis.com

SHEET TITLE:

OVERALL SITE PLAN

SITE PLAN APPLICATION NUMBER:
SP 25-63 W9

SEAL: SHEET NO. **A.100-1**

I hereby certify that this drawing conforms in all respects to the site development plans. Include Architect or Engineer's Signature (if applicable) and Professional Seal

- ARCHITECT OR ENGINEER'S SIGNATURE (IF APPLICABLE) AND PROFESSIONAL SEAL
- The City of Mississauga requires that all working drawings submitted to the Building Division as part of an application for the issuance of a building permit shall be certified by the architect or engineer as being in conformity with the site development plan as approved by the City of Mississauga.
 - All exterior lighting will be directed onto the site and will not infringe upon the adjacent properties.
 - All rooftop mechanical units shall be screened from view by the applicant.
 - Parking spaces reserved for people with disabilities must be identified by a sign, installed at the applicant's expense, in accordance with the By-law Requirements and Building Code Requirements.
 - The applicant will be responsible for ensuring that all plan conform to Transport Canada's restrictions.
 - Grades will be met with a 33% maximum slope at the property lines and within the site.
 - All damaged areas are to be reinstated with topsoil and sod prior to the release of securities.
 - Signage shown on the site development plans is for information purposes only. All signs will be subject to the provisions of Sign By-law 0054-2002, as amended, and a separate sign application will be required through the Building Division.
 - Any fencing adjacent to municipal lands is to be located 15 cm (6.0 in.) inside the property line.
 - Only shaded lighting fixtures are permitted for all development, except for detached and semi-detached dwellings within 60 m of a residentially zoned property and must conform to the Engineer Certified Lighting Plan.
 - The Engineer Certified Lighting Plan must be signed by the Consulting Engineer.
 - The Owner covenants and agrees to construct and install shielded lighting fixtures on the subject lands, in conformity with the Site Plan and Engineer Certified Lighting Plan to the satisfaction of the City of Mississauga.
 - Where planting is to be located in landscaped areas on top of an underground parking structure, it is the responsibility of the applicant to arrange the coordination of the design of the underground parking structure with the Landscape Architect and the Consulting Engineer. Underground parking structures with landscaping area to be capable of supporting the following loads:
 - 15 cm of drainage gravel plus 60 cm topsoil for sod
 - 15 cm of drainage gravel plus 60 cm topsoil for shrubs
 - 15 cm of drainage gravel plus 50 cm for trees Or
 - Prefabricated sheet drain system with a compressive strength of 1003 Kpa plus 40 cm topsoil for sod
 - Prefabricated sheet drain system with a compressive strength of 1003 Kpa plus 60 cm topsoil for shrubs
 - Prefabricated sheet drain system with a compressive strength of 1003 Kpa plus 90 cm topsoil for trees / Terradrain 900 or approved equal
 - The structural design of any retaining wall over 0.6 m in height or any retaining wall located on a property line is to be shown on the Site Grading plan for this project and is to be approved by the Consulting Engineer for the project.
 - Continuous 15 cm high barrier type poured concrete curbing will be provided between all asphalt and landscaped areas throughout the site.
 - All utility companies will be notified for locates prior to the installation of the hoarding that lies within the site and within the limited of the City boulevard area.

SITE LEGEND

▲	PRINCIPAL ENTRANCE	■	HEAVY DUTY ASPHALT
△	LOADING DOCK DOOR	▨	CONCRETE PAVEMENT
○	DRIVE-IN DOOR	▧	CONCRETE SIDEWALK
---	PROPERTY LINE	▩	FIRE TRUCK ROUTE
---	FENCE	▨	EASEMENT HATCH
---	FIRE ACCESS ROUTE	▨	CATCH BASIN SEE CIVIL DWGS
♿	ACCESSIBLE PARKING SPACE	○	MANHOLE SEE CIVIL DWGS
EV	HYBRID AND LOW EMISSION VEHICLE PARKING SPACE	○	TRAFFIC SIGNAGE
B	BOLLARD	○	LIGHT STANDARD
⊕	FIRE HYDRANT	○	SEE ELECTRICAL DWGS
CP	CAR POOL VEHICLE PARKING SPACE	○	WALL MOUNTED LIGHT FIXTURE
		○	SEE ELECTRICAL DWGS
		○	FIRE DEPARTMENT CONNECTION

1 OVERALL SITE PLAN
Scale 1 : 1250




Appendix C: Turning Movement Counts

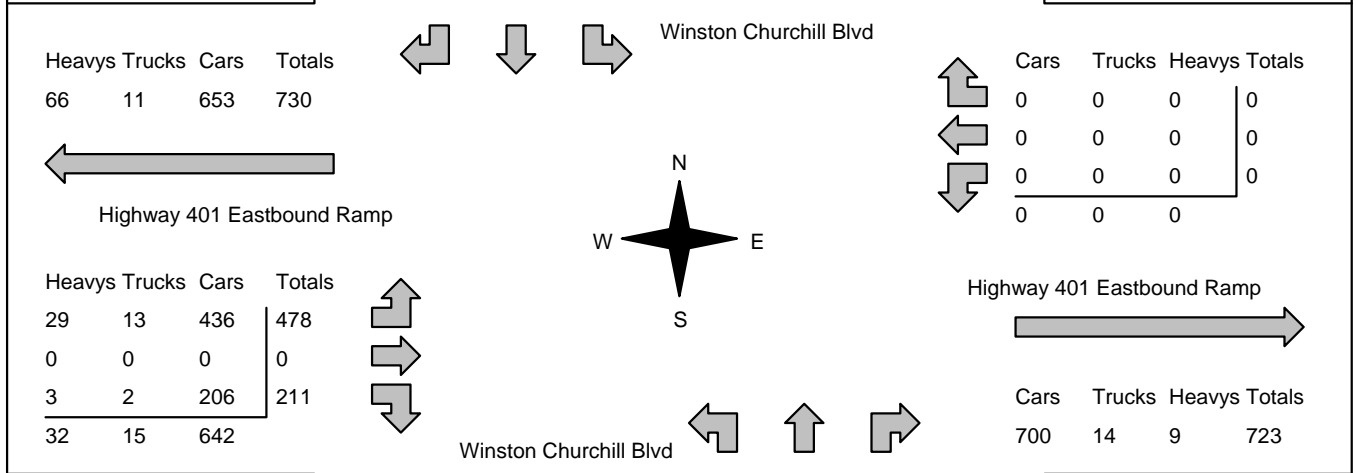
Accu-Traffic Inc.


Morning Peak Diagram	Specified Period From: 7:00:00 To: 9:00:00	One Hour Peak From: 8:00:00 To: 9:00:00
-----------------------------	---	--

Municipality: Mississauga Site #: 2512400001 Intersection: Winston Churchill Blvd & Highway TFR File #: 1 Count date: 6-Aug-25	Weather conditions: Person counted: Person prepared: Person checked:
---	---

** Signalized Intersection **	Major Road: Winston Churchill Blvd runs N/S
--------------------------------------	--

North Leg Total: 2583 North Entering: 1446 North Peds: 0 Peds Cross: \boxtimes	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>66</td><td>15</td><td>0</td><td style="border-left: 1px solid black;">81</td></tr> <tr><td>Trucks</td><td>11</td><td>30</td><td>0</td><td style="border-left: 1px solid black;">41</td></tr> <tr><td>Cars</td><td>653</td><td>671</td><td>0</td><td style="border-left: 1px solid black;">1324</td></tr> <tr><td>Totals</td><td>730</td><td>716</td><td>0</td><td style="border-left: 1px solid black;"></td></tr> </table>	Heavys	66	15	0	81	Trucks	11	30	0	41	Cars	653	671	0	1324	Totals	730	716	0			<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>38</td></tr> <tr><td>Trucks</td><td>21</td></tr> <tr><td>Cars</td><td>1078</td></tr> <tr><td>Totals</td><td>1137</td></tr> </table>	Heavys	38	Trucks	21	Cars	1078	Totals	1137	East Leg Total: 723 East Entering: 0 East Peds: 0 Peds Cross: \boxtimes
Heavys	66	15	0	81																												
Trucks	11	30	0	41																												
Cars	653	671	0	1324																												
Totals	730	716	0																													
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Trucks	21																															
Cars	1078																															
Totals	1137																															



Peds Cross: \boxtimes West Peds: 0 West Entering: 689 West Leg Total: 1419	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>877</td></tr> <tr><td>Trucks</td><td>32</td></tr> <tr><td>Heavys</td><td>18</td></tr> <tr><td>Totals</td><td>927</td></tr> </table>	Cars	877	Trucks	32	Heavys	18	Totals	927		<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>0</td><td>642</td><td>700</td><td style="border-left: 1px solid black;">1342</td></tr> <tr><td>Trucks</td><td>0</td><td>8</td><td>14</td><td style="border-left: 1px solid black;">22</td></tr> <tr><td>Heavys</td><td>0</td><td>9</td><td>9</td><td style="border-left: 1px solid black;">18</td></tr> <tr><td>Totals</td><td>0</td><td>659</td><td>723</td><td style="border-left: 1px solid black;"></td></tr> </table>	Cars	0	642	700	1342	Trucks	0	8	14	22	Heavys	0	9	9	18	Totals	0	659	723		Peds Cross: \boxtimes South Peds: 0 South Entering: 1382 South Leg Total: 2309
Cars	877																															
Trucks	32																															
Heavys	18																															
Totals	927																															
Cars	0	642	700	1342																												
Trucks	0	8	14	22																												
Heavys	0	9	9	18																												
Totals	0	659	723																													

Comments

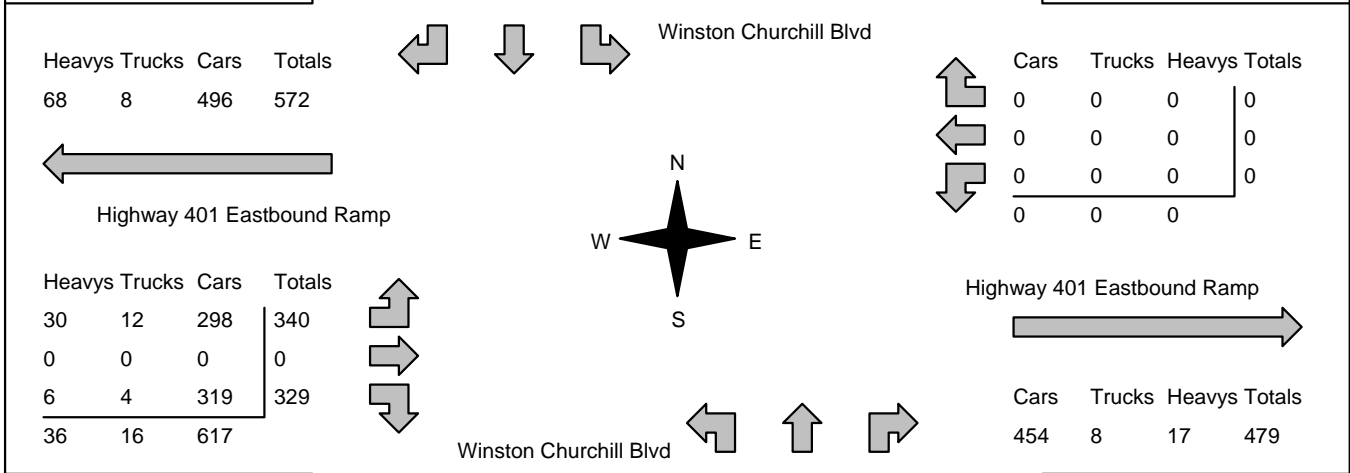
Accu-Traffic Inc.

Afternoon Peak Diagram	Specified Period From: 16:00:00 To: 18:00:00	One Hour Peak From: 16:30:00 To: 17:30:00
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Municipality: Mississauga Site #: 2512400001 Intersection: Winston Churchill Blvd & Highway TFR File #: 1 Count date: 6-Aug-25	Weather conditions: Person counted: Person prepared: Person checked:
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** Signalized Intersection **	Major Road: Winston Churchill Blvd runs N/S
--------------------------------------	--

North Leg Total: 3092 North Entering: 1989 North Peds: 0 Peds Cross: ☒	<table style="border-collapse: collapse; margin: auto;"> <tr><td>Heavys</td><td>68</td><td>11</td><td>0</td><td style="border-left: 1px solid black;">79</td></tr> <tr><td>Trucks</td><td>8</td><td>9</td><td>0</td><td style="border-left: 1px solid black;">17</td></tr> <tr><td>Cars</td><td>496</td><td>1397</td><td>0</td><td style="border-left: 1px solid black;">1893</td></tr> <tr><td>Totals</td><td>572</td><td>1417</td><td>0</td><td style="border-left: 1px solid black;"></td></tr> </table>	Heavys	68	11	0	79	Trucks	8	9	0	17	Cars	496	1397	0	1893	Totals	572	1417	0		<table style="border-collapse: collapse; margin: auto;"> <tr><td>Heavys</td><td>44</td></tr> <tr><td>Trucks</td><td>21</td></tr> <tr><td>Cars</td><td>1038</td></tr> <tr><td>Totals</td><td>1103</td></tr> </table>	Heavys	44	Trucks	21	Cars	1038	Totals	1103	East Leg Total: 479 East Entering: 0 East Peds: 0 Peds Cross: ☒
Heavys	68	11	0	79																											
Trucks	8	9	0	17																											
Cars	496	1397	0	1893																											
Totals	572	1417	0																												
Heavys	44																														
Trucks	21																														
Cars	1038																														
Totals	1103																														



Peds Cross: ☒ West Peds: 0 West Entering: 669 West Leg Total: 1241	<table style="border-collapse: collapse; margin: auto;"> <tr><td>Cars</td><td>1716</td></tr> <tr><td>Trucks</td><td>13</td></tr> <tr><td>Heavys</td><td>17</td></tr> <tr><td>Totals</td><td>1746</td></tr> </table>	Cars	1716	Trucks	13	Heavys	17	Totals	1746	<table style="border-collapse: collapse; margin: auto;"> <tr><td>Cars</td><td>0</td><td>740</td><td>454</td><td style="border-left: 1px solid black;">1194</td></tr> <tr><td>Trucks</td><td>0</td><td>9</td><td>8</td><td style="border-left: 1px solid black;">17</td></tr> <tr><td>Heavys</td><td>0</td><td>14</td><td>17</td><td style="border-left: 1px solid black;">31</td></tr> <tr><td>Totals</td><td>0</td><td>763</td><td>479</td><td style="border-left: 1px solid black;"></td></tr> </table>	Cars	0	740	454	1194	Trucks	0	9	8	17	Heavys	0	14	17	31	Totals	0	763	479		Peds Cross: ☒ South Peds: 0 South Entering: 1242 South Leg Total: 2988
Cars	1716																														
Trucks	13																														
Heavys	17																														
Totals	1746																														
Cars	0	740	454	1194																											
Trucks	0	9	8	17																											
Heavys	0	14	17	31																											
Totals	0	763	479																												

Comments

Accu-Traffic Inc.

Total Count Diagram

Municipality: Mississauga
Site #: 2512400001
Intersection: Winston Churchill Blvd & Highway
TFR File #: 1
Count date: 6-Aug-25

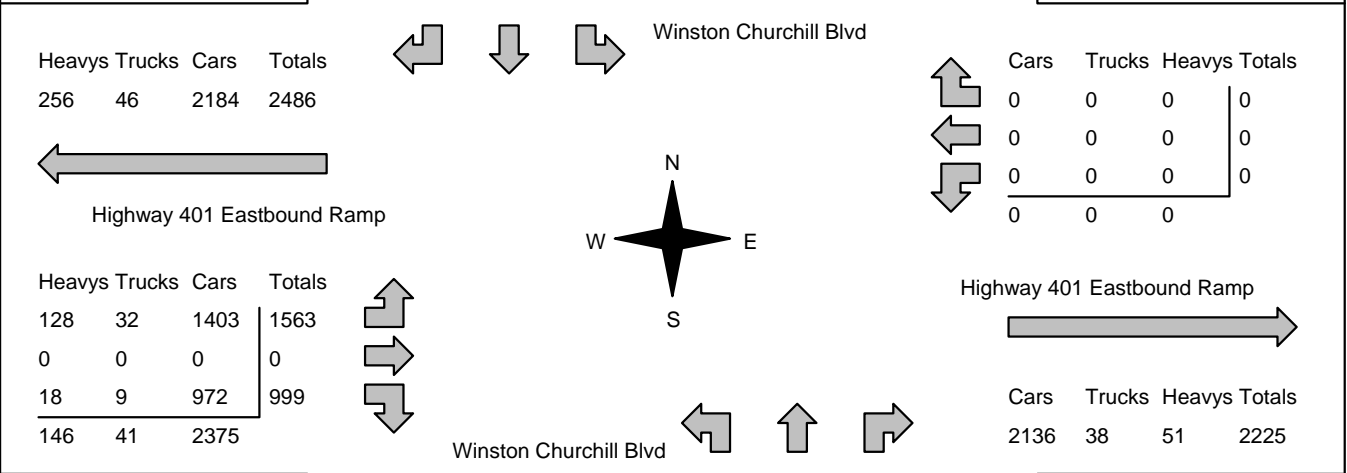
Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Signalized Intersection ****

Major Road: Winston Churchill Blvd runs N/S

North Leg Total: 10699	Heavys 256 58 0 314	↑	Heavys 173	East Leg Total: 2225
North Entering: 6443	Trucks 46 52 0 98		Trucks 61	East Entering: 0
North Peds: 0	Cars 2184 3847 0 6031		Cars 4022	East Peds: 0
Peds Cross: ☒	Totals 2486 3957 0		Totals 4256	Peds Cross: ☒



Peds Cross: ☒	Cars 4819	↓	Cars 0 2619 2136 4755	Peds Cross: ☒
West Peds: 2	Trucks 61		Trucks 0 29 38 67	South Peds: 0
West Entering: 2562	Heavys 76		Heavys 0 45 51 96	South Entering: 4918
West Leg Total: 5048	Totals 4956		Totals 0 2693 2225	South Leg Total: 9874

Comments



Accu-Traffic Inc.
Traffic Monitoring & Data Analysis


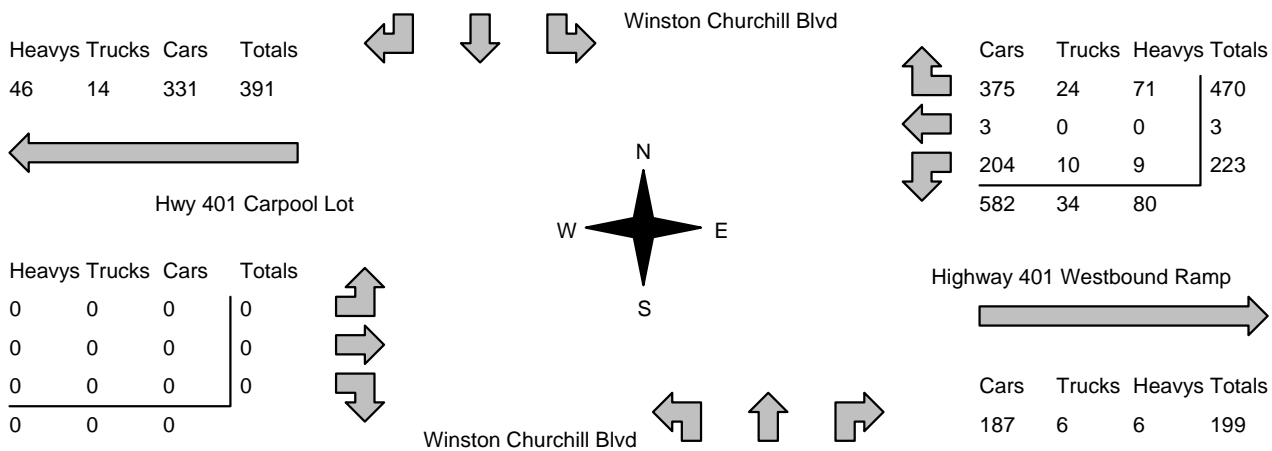

Accu-Traffic Inc.

Traffic Count Summary

Intersection: Winston Churchill Blvd & Highway Count Date: 6-Aug-25 Municipality: Mississauga

North Approach Totals						North/South Total Approaches	South Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	0	554	720	1274	0	2384	8:00:00	0	521	589	1110	0
9:00:00	0	716	730	1446	0	2828	9:00:00	0	659	723	1382	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	0	1253	531	1784	0	2998	17:00:00	0	758	456	1214	0
18:00:00	0	1434	505	1939	0	3151	18:00:00	0	755	457	1212	0
Totals:	0	3957	2486	6443	0	11361	S Totals:	0	2693	2225	4918	0
East Approach Totals						East/West Total Approaches	West Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	0	0	0	0	0	581	8:00:00	384	0	197	581	2
9:00:00	0	0	0	0	0	689	9:00:00	478	0	211	689	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	0	0	0	0	0	640	17:00:00	354	0	286	640	0
18:00:00	0	0	0	0	0	652	18:00:00	347	0	305	652	0
Totals:	0	0	0	0	0	2562	W Totals:	1563	0	999	2562	2
Calculated Values for Traffic Crossing Major Street												
Hours Ending:	7:00	8:00	9:00	16:00			17:00	18:00	0:00	0:00		
Crossing Values:	0	384	478	0			354	347	0	0		

Accu-Traffic Inc.


Morning Peak Diagram		Specified Period From: 7:00:00 To: 9:00:00	One Hour Peak From: 8:00:00 To: 9:00:00																													
Municipality: Mississauga Site #: 2512400002 Intersection: Winston Churchill Blvd & Highway TFR File #: 1 Count date: 6-Aug-25		Weather conditions: Person counted: Person prepared: Person checked:																														
** Signalized Intersection **		Major Road: Winston Churchill Blvd runs N/S																														
North Leg Total: 3006 North Entering: 1605 North Peds: 1 Peds Cross: ☒	<table style="width: 100%; border-collapse: collapse;"> <tr><td>Heavys</td><td>46</td><td>73</td><td>0</td><td style="border-left: 1px solid black;">119</td></tr> <tr><td>Trucks</td><td>14</td><td>30</td><td>0</td><td style="border-left: 1px solid black;">44</td></tr> <tr><td>Cars</td><td>326</td><td>1116</td><td>0</td><td style="border-left: 1px solid black;">1442</td></tr> <tr><td>Totals</td><td>386</td><td>1219</td><td>0</td><td style="border-left: 1px solid black;">1442</td></tr> </table>	Heavys	46	73	0	119	Trucks	14	30	0	44	Cars	326	1116	0	1442	Totals	386	1219	0	1442		<table style="width: 100%; border-collapse: collapse;"> <tr><td>Heavys</td><td>104</td></tr> <tr><td>Trucks</td><td>38</td></tr> <tr><td>Cars</td><td>1259</td></tr> <tr><td>Totals</td><td>1401</td></tr> </table>	Heavys	104	Trucks	38	Cars	1259	Totals	1401	East Leg Total: 895 East Entering: 696 East Peds: 0 Peds Cross: ☒
Heavys	46	73	0	119																												
Trucks	14	30	0	44																												
Cars	326	1116	0	1442																												
Totals	386	1219	0	1442																												
Heavys	104																															
Trucks	38																															
Cars	1259																															
Totals	1401																															
																																
<table style="width: 100%; border-collapse: collapse;"> <tr><td>Heavys</td><td>Trucks</td><td>Cars</td><td>Totals</td></tr> <tr><td>46</td><td>14</td><td>331</td><td>391</td></tr> </table>	Heavys	Trucks	Cars	Totals	46	14	331	391			<table style="width: 100%; border-collapse: collapse;"> <tr><td>Cars</td><td>Trucks</td><td>Heavys</td><td>Totals</td></tr> <tr><td>375</td><td>24</td><td>71</td><td>470</td></tr> <tr><td>3</td><td>0</td><td>0</td><td>3</td></tr> <tr><td>204</td><td>10</td><td>9</td><td>223</td></tr> <tr><td>582</td><td>34</td><td>80</td><td></td></tr> </table>	Cars	Trucks	Heavys	Totals	375	24	71	470	3	0	0	3	204	10	9	223	582	34	80		
Heavys	Trucks	Cars	Totals																													
46	14	331	391																													
Cars	Trucks	Heavys	Totals																													
375	24	71	470																													
3	0	0	3																													
204	10	9	223																													
582	34	80																														
<table style="width: 100%; border-collapse: collapse;"> <tr><td>Heavys</td><td>Trucks</td><td>Cars</td><td>Totals</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td></td></tr> </table>	Heavys	Trucks	Cars	Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					<table style="width: 100%; border-collapse: collapse;"> <tr><td>Cars</td><td>Trucks</td><td>Heavys</td><td>Totals</td></tr> <tr><td>187</td><td>6</td><td>6</td><td>199</td></tr> </table>	Cars	Trucks	Heavys	Totals	187	6	6	199
Heavys	Trucks	Cars	Totals																													
0	0	0	0																													
0	0	0	0																													
0	0	0	0																													
0	0	0																														
Cars	Trucks	Heavys	Totals																													
187	6	6	199																													
Peds Cross: ☒ West Peds: 0 West Entering: 0 West Leg Total: 391	<table style="width: 100%; border-collapse: collapse;"> <tr><td>Cars</td><td>1320</td></tr> <tr><td>Trucks</td><td>40</td></tr> <tr><td>Heavys</td><td>82</td></tr> <tr><td>Totals</td><td>1442</td></tr> </table>	Cars	1320	Trucks	40	Heavys	82	Totals	1442		<table style="width: 100%; border-collapse: collapse;"> <tr><td>Cars</td><td>2</td><td>884</td><td>187</td><td style="border-left: 1px solid black;">1073</td></tr> <tr><td>Trucks</td><td>0</td><td>14</td><td>6</td><td style="border-left: 1px solid black;">20</td></tr> <tr><td>Heavys</td><td>0</td><td>33</td><td>6</td><td style="border-left: 1px solid black;">39</td></tr> <tr><td>Totals</td><td>2</td><td>931</td><td>199</td><td style="border-left: 1px solid black;">1132</td></tr> </table>	Cars	2	884	187	1073	Trucks	0	14	6	20	Heavys	0	33	6	39	Totals	2	931	199	1132	Peds Cross: ☒ South Peds: 0 South Entering: 1132 South Leg Total: 2574
Cars	1320																															
Trucks	40																															
Heavys	82																															
Totals	1442																															
Cars	2	884	187	1073																												
Trucks	0	14	6	20																												
Heavys	0	33	6	39																												
Totals	2	931	199	1132																												
Comments																																

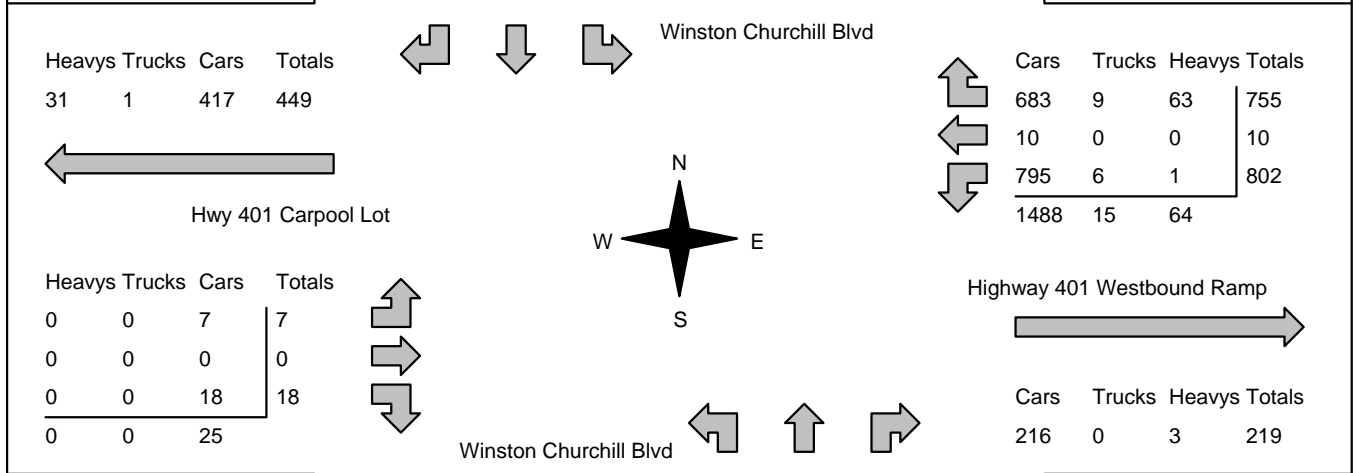
Accu-Traffic Inc.


Afternoon Peak Diagram	Specified Period From: 16:00:00 To: 18:00:00	One Hour Peak From: 16:45:00 To: 17:45:00
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Municipality: Mississauga Site #: 2512400002 Intersection: Winston Churchill Blvd & Highway TFR File #: 1 Count date: 6-Aug-25	Weather conditions: Person counted: Person prepared: Person checked:
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** Signalized Intersection **	Major Road: Winston Churchill Blvd runs N/S
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North Leg Total: 3259 North Entering: 1595 North Peds: 0 Peds Cross: ☒	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>31</td><td>65</td><td>0</td><td style="border-left: 1px solid black;">96</td></tr> <tr><td>Trucks</td><td>1</td><td>11</td><td>0</td><td style="border-left: 1px solid black;">12</td></tr> <tr><td>Cars</td><td>402</td><td>1085</td><td>0</td><td style="border-left: 1px solid black;">1487</td></tr> <tr><td>Totals</td><td>434</td><td>1161</td><td>0</td><td style="border-left: 1px solid black;">1664</td></tr> </table>	Heavys	31	65	0	96	Trucks	1	11	0	12	Cars	402	1085	0	1487	Totals	434	1161	0	1664		<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>104</td></tr> <tr><td>Trucks</td><td>25</td></tr> <tr><td>Cars</td><td>1535</td></tr> <tr><td>Totals</td><td>1664</td></tr> </table>	Heavys	104	Trucks	25	Cars	1535	Totals	1664	East Leg Total: 1786 East Entering: 1567 East Peds: 0 Peds Cross: ☒
Heavys	31	65	0	96																												
Trucks	1	11	0	12																												
Cars	402	1085	0	1487																												
Totals	434	1161	0	1664																												
Heavys	104																															
Trucks	25																															
Cars	1535																															
Totals	1664																															



Peds Cross: ☒ West Peds: 0 West Entering: 25 West Leg Total: 474	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>1898</td></tr> <tr><td>Trucks</td><td>17</td></tr> <tr><td>Heavys</td><td>66</td></tr> <tr><td>Totals</td><td>1981</td></tr> </table>	Cars	1898	Trucks	17	Heavys	66	Totals	1981		<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>5</td><td>845</td><td>216</td><td style="border-left: 1px solid black;">1066</td></tr> <tr><td>Trucks</td><td>0</td><td>16</td><td>0</td><td style="border-left: 1px solid black;">16</td></tr> <tr><td>Heavys</td><td>0</td><td>41</td><td>3</td><td style="border-left: 1px solid black;">44</td></tr> <tr><td>Totals</td><td>5</td><td>902</td><td>219</td><td style="border-left: 1px solid black;">1126</td></tr> </table>	Cars	5	845	216	1066	Trucks	0	16	0	16	Heavys	0	41	3	44	Totals	5	902	219	1126	Peds Cross: ☒ South Peds: 0 South Entering: 1126 South Leg Total: 3107
Cars	1898																															
Trucks	17																															
Heavys	66																															
Totals	1981																															
Cars	5	845	216	1066																												
Trucks	0	16	0	16																												
Heavys	0	41	3	44																												
Totals	5	902	219	1126																												

Comments

Accu-Traffic Inc.

Total Count Diagram


Municipality: Mississauga
Site #: 2512400002
Intersection: Winston Churchill Blvd & Highway
TFR File #: 1
Count date: 6-Aug-25

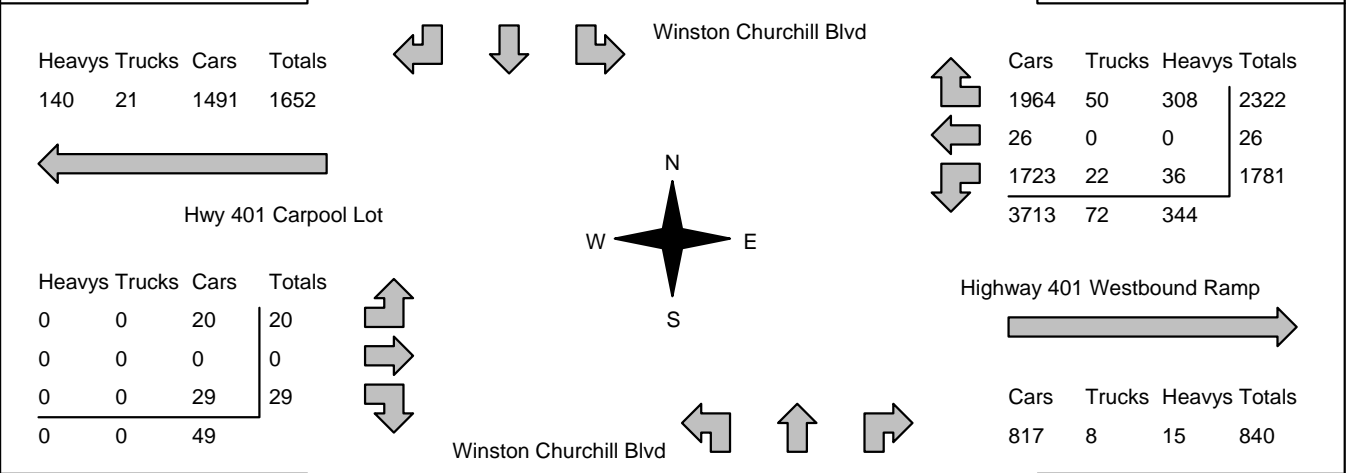
Weather conditions:


Person counted:
Person prepared:
Person checked:

**** Signalized Intersection ****

Major Road: Winston Churchill Blvd runs N/S

North Leg Total: 11927 North Entering: 6171 North Peds: 1 Peds Cross: \boxtimes	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Heavys</td><td>140</td><td>284</td><td>0</td><td>424</td></tr> <tr><td>Trucks</td><td>21</td><td>69</td><td>0</td><td>90</td></tr> <tr><td>Cars</td><td>1449</td><td>4208</td><td>0</td><td>5657</td></tr> <tr><td>Totals</td><td>1610</td><td>4561</td><td>0</td><td></td></tr> </table>	Heavys	140	284	0	424	Trucks	21	69	0	90	Cars	1449	4208	0	5657	Totals	1610	4561	0			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Heavys</td><td>465</td></tr> <tr><td>Trucks</td><td>102</td></tr> <tr><td>Cars</td><td>5189</td></tr> <tr><td>Totals</td><td>5756</td></tr> </table>	Heavys	465	Trucks	102	Cars	5189	Totals	5756	East Leg Total: 4969 East Entering: 4129 East Peds: 0 Peds Cross: \boxtimes
Heavys	140	284	0	424																												
Trucks	21	69	0	90																												
Cars	1449	4208	0	5657																												
Totals	1610	4561	0																													
Heavys	465																															
Trucks	102																															
Cars	5189																															
Totals	5756																															



Peds Cross: \boxtimes West Peds: 0 West Entering: 49 West Leg Total: 1701	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Cars</td><td>5960</td></tr> <tr><td>Trucks</td><td>91</td></tr> <tr><td>Heavys</td><td>320</td></tr> <tr><td>Totals</td><td>6371</td></tr> </table>	Cars	5960	Trucks	91	Heavys	320	Totals	6371		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Cars</td><td>16</td><td>3205</td><td>817</td><td>4038</td></tr> <tr><td>Trucks</td><td>0</td><td>52</td><td>8</td><td>60</td></tr> <tr><td>Heavys</td><td>0</td><td>157</td><td>15</td><td>172</td></tr> <tr><td>Totals</td><td>16</td><td>3414</td><td>840</td><td></td></tr> </table>	Cars	16	3205	817	4038	Trucks	0	52	8	60	Heavys	0	157	15	172	Totals	16	3414	840		Peds Cross: \boxtimes South Peds: 0 South Entering: 4270 South Leg Total: 10641
Cars	5960																															
Trucks	91																															
Heavys	320																															
Totals	6371																															
Cars	16	3205	817	4038																												
Trucks	0	52	8	60																												
Heavys	0	157	15	172																												
Totals	16	3414	840																													

Comments



Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Traffic Count Summary

Intersection: Winston Churchill Blvd & Highway Count Date: 6-Aug-25 Municipality: Mississauga


North Approach Totals						North/South Total Approaches	South Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	0	1098	388	1486	0	2405	8:00:00	3	713	203	919	0
9:00:00	0	1219	386	1605	1	2737	9:00:00	2	931	199	1132	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	0	1152	416	1568	0	2660	17:00:00	8	865	219	1092	0
18:00:00	0	1092	420	1512	0	2639	18:00:00	3	905	219	1127	0
Totals:	0	4561	1610	6171	1	10441	S Totals:	16	3414	840	4270	0
East Approach Totals						East/West Total Approaches	West Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	164	2	395	561	0	563	8:00:00	1	0	1	2	0
9:00:00	223	3	470	696	0	696	9:00:00	0	0	0	0	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	584	15	726	1325	0	1356	17:00:00	11	0	20	31	0
18:00:00	810	6	731	1547	0	1563	18:00:00	8	0	8	16	0
Totals:	1781	26	2322	4129	0	4178	W Totals:	20	0	29	49	0
Calculated Values for Traffic Crossing Major Street												
Hours Ending:	7:00	8:00	9:00	16:00			17:00	18:00	0:00	0:00		
Crossing Values:	0	167	227	0			610	824	0	0		

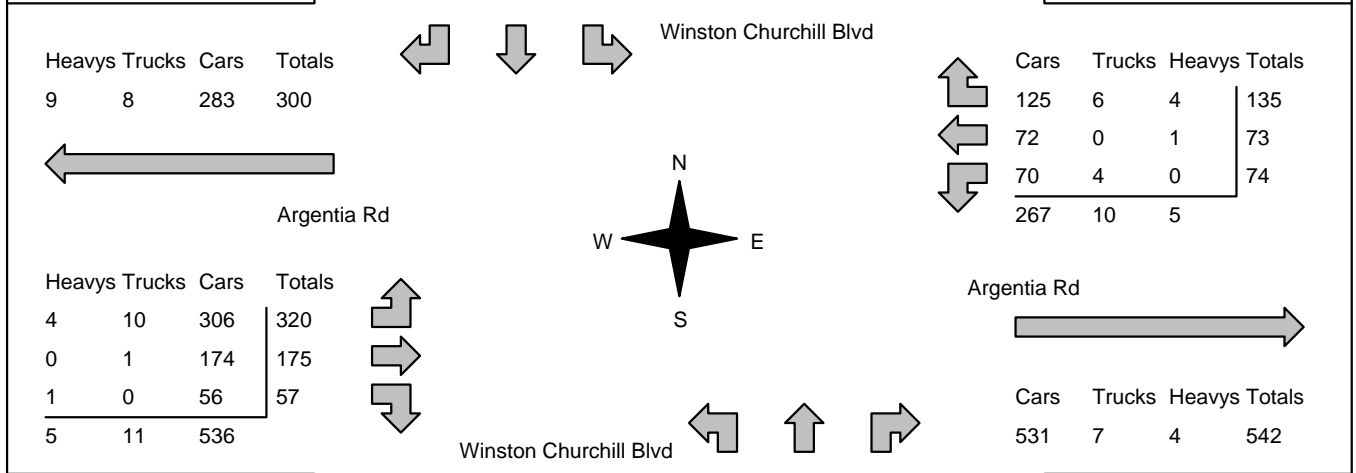
Accu-Traffic Inc.


Morning Peak Diagram	Specified Period From: 7:00:00 To: 9:00:00	One Hour Peak From: 8:00:00 To: 9:00:00
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Municipality: Mississauga Site #: 2512400003 Intersection: Winston Churchill Blvd & Argentia TFR File #: 1 Count date: 6-Aug-25	Weather conditions: Person counted: Person prepared: Person checked:
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** Signalized Intersection **	Major Road: Winston Churchill Blvd runs N/S
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North Leg Total: 2273 North Entering: 863 North Peds: 23 Peds Cross: \times	<table style="width: 100%; border-collapse: collapse;"> <tr><td>Heavys</td><td>7</td><td>10</td><td>2</td><td>19</td></tr> <tr><td>Trucks</td><td>8</td><td>17</td><td>5</td><td>30</td></tr> <tr><td>Cars</td><td>137</td><td>412</td><td>265</td><td>814</td></tr> <tr><td>Totals</td><td>152</td><td>439</td><td>272</td><td></td></tr> </table>	Heavys	7	10	2	19	Trucks	8	17	5	30	Cars	137	412	265	814	Totals	152	439	272			<table style="width: 100%; border-collapse: collapse;"> <tr><td>Heavys</td><td>18</td></tr> <tr><td>Trucks</td><td>23</td></tr> <tr><td>Cars</td><td>1369</td></tr> <tr><td>Totals</td><td>1410</td></tr> </table>	Heavys	18	Trucks	23	Cars	1369	Totals	1410	East Leg Total: 824 East Entering: 282 East Peds: 7 Peds Cross: \times
Heavys	7	10	2	19																												
Trucks	8	17	5	30																												
Cars	137	412	265	814																												
Totals	152	439	272																													
Heavys	18																															
Trucks	23																															
Cars	1369																															
Totals	1410																															



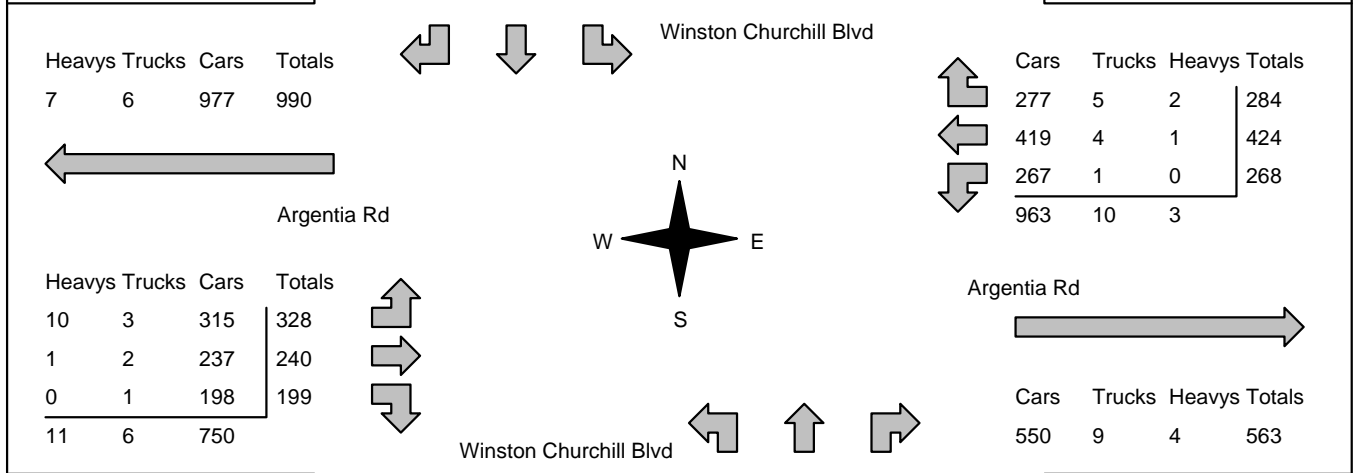
Peds Cross: \times West Peds: 9 West Entering: 552 West Leg Total: 852	<table style="width: 100%; border-collapse: collapse;"> <tr><td>Cars</td><td>538</td></tr> <tr><td>Trucks</td><td>21</td></tr> <tr><td>Heavys</td><td>11</td></tr> <tr><td>Totals</td><td>570</td></tr> </table>	Cars	538	Trucks	21	Heavys	11	Totals	570		<table style="width: 100%; border-collapse: collapse;"> <tr><td>Cars</td><td>74</td><td>938</td><td>92</td><td>1104</td></tr> <tr><td>Trucks</td><td>0</td><td>7</td><td>1</td><td>8</td></tr> <tr><td>Heavys</td><td>1</td><td>10</td><td>2</td><td>13</td></tr> <tr><td>Totals</td><td>75</td><td>955</td><td>95</td><td></td></tr> </table>	Cars	74	938	92	1104	Trucks	0	7	1	8	Heavys	1	10	2	13	Totals	75	955	95		Peds Cross: \times South Peds: 18 South Entering: 1125 South Leg Total: 1695
Cars	538																															
Trucks	21																															
Heavys	11																															
Totals	570																															
Cars	74	938	92	1104																												
Trucks	0	7	1	8																												
Heavys	1	10	2	13																												
Totals	75	955	95																													

Comments

Accu-Traffic Inc.

Afternoon Peak Diagram	Specified Period From: 16:00:00 To: 18:00:00	One Hour Peak From: 16:45:00 To: 17:45:00
Municipality: Mississauga Site #: 2512400003 Intersection: Winston Churchill Blvd & Argentia TFR File #: 1 Count date: 6-Aug-25	Weather conditions: Person counted: Person prepared: Person checked:	
** Signalized Intersection **	Major Road: Winston Churchill Blvd runs N/S	

North Leg Total: 2803 North Entering: 1578 North Peds: 40 Peds Cross: \bowtie	<table style="border-collapse: collapse; margin: auto;"> <tr><td>Heavys</td><td>5</td><td>5</td><td>2</td><td style="border-left: 1px solid black;">12</td></tr> <tr><td>Trucks</td><td>2</td><td>6</td><td>7</td><td style="border-left: 1px solid black;">15</td></tr> <tr><td>Cars</td><td>339</td><td>992</td><td>220</td><td style="border-left: 1px solid black; border-bottom: 1px solid black;">1551</td></tr> <tr><td>Totals</td><td>346</td><td>1003</td><td>229</td><td style="border-left: 1px solid black;"></td></tr> </table>	Heavys	5	5	2	12	Trucks	2	6	7	15	Cars	339	992	220	1551	Totals	346	1003	229		<table style="border-collapse: collapse; margin: auto;"> <tr><td>Heavys</td><td>29</td></tr> <tr><td>Trucks</td><td>17</td></tr> <tr><td>Cars</td><td style="border-bottom: 1px solid black;">1179</td></tr> <tr><td>Totals</td><td>1225</td></tr> </table>	Heavys	29	Trucks	17	Cars	1179	Totals	1225	East Leg Total: 1539 East Entering: 976 East Peds: 2 Peds Cross: \bowtie
Heavys	5	5	2	12																											
Trucks	2	6	7	15																											
Cars	339	992	220	1551																											
Totals	346	1003	229																												
Heavys	29																														
Trucks	17																														
Cars	1179																														
Totals	1225																														



Peds Cross: \bowtie West Peds: 6 West Entering: 767 West Leg Total: 1757	<table style="border-collapse: collapse; margin: auto;"> <tr><td>Cars</td><td>1457</td></tr> <tr><td>Trucks</td><td>8</td></tr> <tr><td>Heavys</td><td style="border-bottom: 1px solid black;">5</td></tr> <tr><td>Totals</td><td>1470</td></tr> </table>	Cars	1457	Trucks	8	Heavys	5	Totals	1470	<table style="border-collapse: collapse; margin: auto;"> <tr><td>Cars</td><td>219</td><td>587</td><td>93</td><td style="border-left: 1px solid black;">899</td></tr> <tr><td>Trucks</td><td>0</td><td>9</td><td>0</td><td style="border-left: 1px solid black;">9</td></tr> <tr><td>Heavys</td><td>1</td><td>17</td><td>1</td><td style="border-left: 1px solid black; border-bottom: 1px solid black;">19</td></tr> <tr><td>Totals</td><td>220</td><td>613</td><td>94</td><td></td></tr> </table>	Cars	219	587	93	899	Trucks	0	9	0	9	Heavys	1	17	1	19	Totals	220	613	94		Peds Cross: \bowtie South Peds: 32 South Entering: 927 South Leg Total: 2397
Cars	1457																														
Trucks	8																														
Heavys	5																														
Totals	1470																														
Cars	219	587	93	899																											
Trucks	0	9	0	9																											
Heavys	1	17	1	19																											
Totals	220	613	94																												

Comments

Accu-Traffic Inc.

Total Count Diagram

Municipality: Mississauga
Site #: 2512400003
Intersection: Winston Churchill Blvd & Argentia
TFR File #: 1
Count date: 6-Aug-25

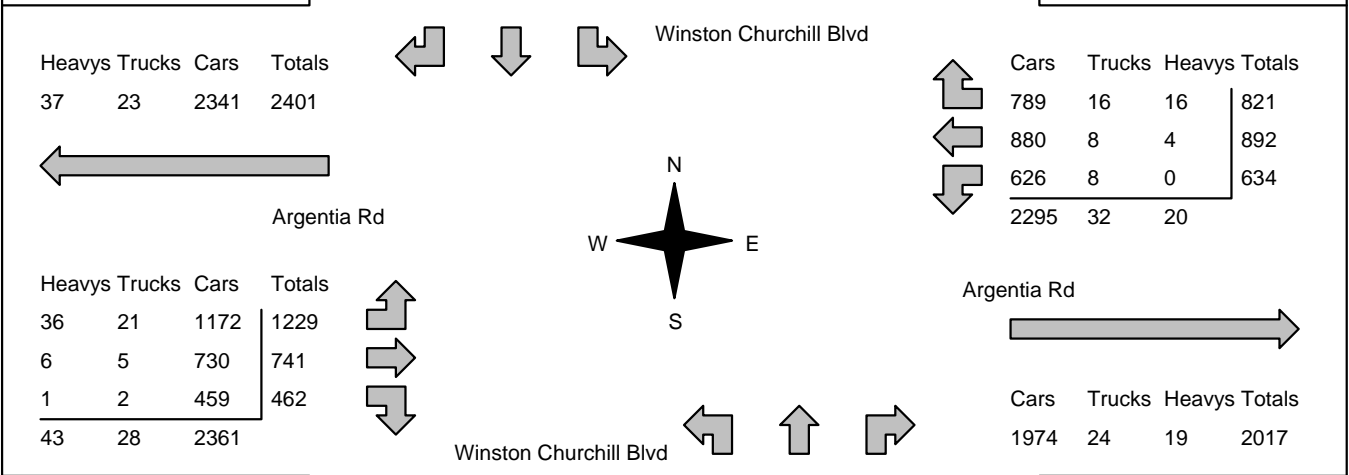
Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Signalized Intersection ****

Major Road: Winston Churchill Blvd runs N/S

North Leg Total: 9474	Heavys 30	36	10	76	↑	Heavys 96	East Leg Total: 4364
North Entering: 4500	Trucks 15	31	14	60		Trucks 69	East Entering: 2347
North Peds: 100	Cars 909	2573	882	4364		Cars 4809	East Peds: 23
Peds Cross: ☒	Totals 954	2640	906			Totals 4974	Peds Cross: ☒



Peds Cross: ☒	Cars 3658	↓	Cars 552	2848	362	3762	Peds Cross: ☒
West Peds: 22	Trucks 41		Trucks 0	32	5	37	South Peds: 81
West Entering: 2432	Heavys 37		Heavys 3	44	3	50	South Entering: 3849
West Leg Total: 4833	Totals 3736		Totals 555	2924	370		South Leg Total: 7585

Comments



Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Traffic Count Summary

Intersection: Winston Churchill Blvd & Argentia Count Date: 6-Aug-25 Municipality: Mississauga


North Approach Totals						North/South Total Approaches	South Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	205	337	138	680	19	1541	8:00:00	41	742	78	861	13
9:00:00	272	439	152	863	23	1988	9:00:00	75	955	95	1125	18
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	225	847	307	1379	34	2303	17:00:00	223	603	98	924	24
18:00:00	204	1017	357	1578	24	2517	18:00:00	216	624	99	939	26
Totals:	906	2640	954	4500	100	8349	S Totals:	555	2924	370	3849	81
East Approach Totals						East/West Total Approaches	West Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	41	52	106	199	5	607	8:00:00	253	124	31	408	4
9:00:00	74	73	135	282	7	834	9:00:00	320	175	57	552	9
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	250	378	327	955	9	1658	17:00:00	315	208	180	703	4
18:00:00	269	389	253	911	2	1680	18:00:00	341	234	194	769	5
Totals:	634	892	821	2347	23	4779	W Totals:	1229	741	462	2432	22
Calculated Values for Traffic Crossing Major Street												
Hours Ending:	7:00	8:00	9:00	16:00		17:00	18:00	0:00	0:00			
Crossing Values:	0	450	610	0		1001	1049	0	0			

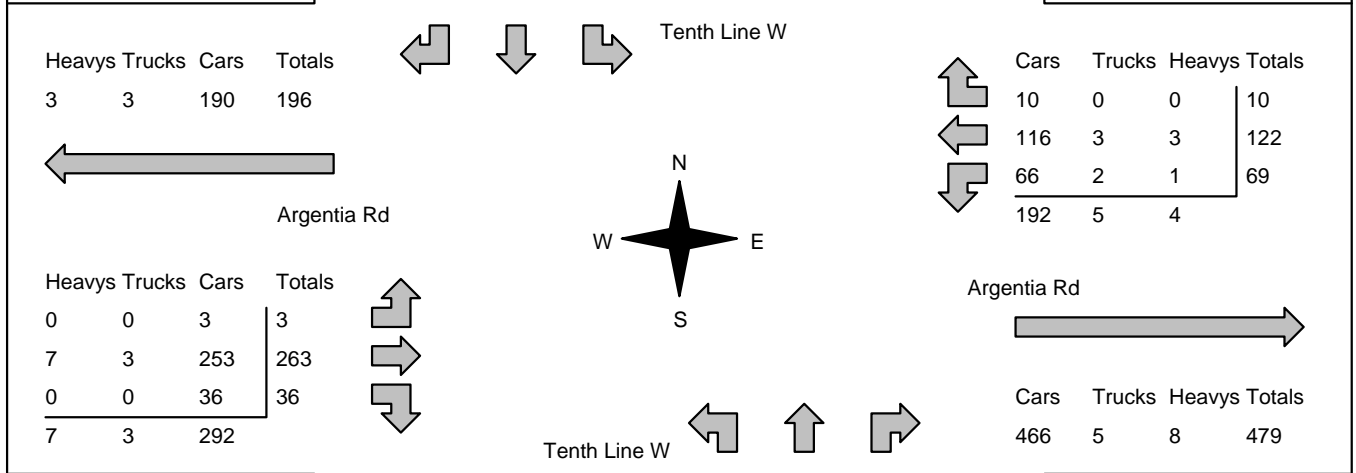
Accu-Traffic Inc.


Morning Peak Diagram	Specified Period From: 7:00:00 To: 9:00:00	One Hour Peak From: 7:30:00 To: 8:30:00
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Municipality: Mississauga Site #: 2512400004 Intersection: Argentia Rd & Tenth Line W TFR File #: 1 Count date: 6-Aug-25	Weather conditions: Person counted: Person prepared: Person checked:
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** Signalized Intersection **	Major Road: Argentia Rd runs W/E
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North Leg Total: 18 North Entering: 4 North Peds: 3 Peds Cross: ☒	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>0</td><td>0</td><td>1</td><td style="border-left: 1px solid black;">1</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td><td style="border-left: 1px solid black;">0</td></tr> <tr><td>Cars</td><td>1</td><td>1</td><td>1</td><td style="border-left: 1px solid black;">3</td></tr> <tr><td>Totals</td><td>1</td><td>1</td><td>2</td><td style="border-left: 1px solid black;"></td></tr> </table>	Heavys	0	0	1	1	Trucks	0	0	0	0	Cars	1	1	1	3	Totals	1	1	2			<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>0</td></tr> <tr><td>Trucks</td><td>0</td></tr> <tr><td>Cars</td><td>14</td></tr> <tr><td>Totals</td><td>14</td></tr> </table>	Heavys	0	Trucks	0	Cars	14	Totals	14	East Leg Total: 680 East Entering: 201 East Peds: 1 Peds Cross: ☒
Heavys	0	0	1	1																												
Trucks	0	0	0	0																												
Cars	1	1	1	3																												
Totals	1	1	2																													
Heavys	0																															
Trucks	0																															
Cars	14																															
Totals	14																															



Peds Cross: ☒ West Peds: 2 West Entering: 302 West Leg Total: 498	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>103</td></tr> <tr><td>Trucks</td><td>2</td></tr> <tr><td>Heavys</td><td>1</td></tr> <tr><td>Totals</td><td>106</td></tr> </table>	Cars	103	Trucks	2	Heavys	1	Totals	106		<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>73</td><td>1</td><td>212</td><td style="border-left: 1px solid black;">286</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>2</td><td style="border-left: 1px solid black;">2</td></tr> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td><td style="border-left: 1px solid black;">0</td></tr> <tr><td>Totals</td><td>73</td><td>1</td><td>214</td><td style="border-left: 1px solid black;"></td></tr> </table>	Cars	73	1	212	286	Trucks	0	0	2	2	Heavys	0	0	0	0	Totals	73	1	214		Peds Cross: ☒ South Peds: 5 South Entering: 288 South Leg Total: 394
Cars	103																															
Trucks	2																															
Heavys	1																															
Totals	106																															
Cars	73	1	212	286																												
Trucks	0	0	2	2																												
Heavys	0	0	0	0																												
Totals	73	1	214																													

Comments

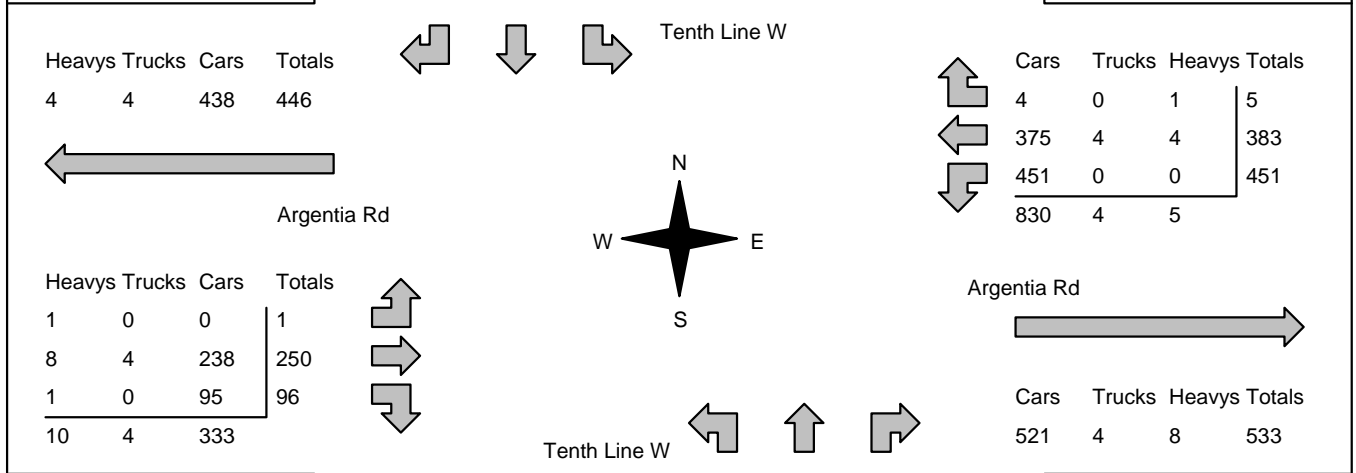
Accu-Traffic Inc.

Afternoon Peak Diagram	Specified Period From: 16:00:00 To: 18:00:00	One Hour Peak From: 17:00:00 To: 18:00:00
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Municipality: Mississauga Site #: 2512400004 Intersection: Argentia Rd & Tenth Line W TFR File #: 1 Count date: 6-Aug-25	Weather conditions: Person counted: Person prepared: Person checked:
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** Signalized Intersection **	Major Road: Argentia Rd runs W/E
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North Leg Total: 12 North Entering: 6 North Peds: 8 Peds Cross: ☒	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Cars</td><td>2</td><td>2</td><td>2</td><td>6</td></tr> <tr><td>Totals</td><td>2</td><td>2</td><td>2</td><td></td></tr> </table>	Heavys	0	0	0	0	Trucks	0	0	0	0	Cars	2	2	2	6	Totals	2	2	2		↑	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>2</td></tr> <tr><td>Trucks</td><td>0</td></tr> <tr><td>Cars</td><td>4</td></tr> <tr><td>Totals</td><td>6</td></tr> </table>	Heavys	2	Trucks	0	Cars	4	Totals	6	East Leg Total: 1372 East Entering: 839 East Peds: 7 Peds Cross: ☒
Heavys	0	0	0	0																												
Trucks	0	0	0	0																												
Cars	2	2	2	6																												
Totals	2	2	2																													
Heavys	2																															
Trucks	0																															
Cars	4																															
Totals	6																															



Peds Cross: ☒ West Peds: 8 West Entering: 347 West Leg Total: 793	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>548</td></tr> <tr><td>Trucks</td><td>0</td></tr> <tr><td>Heavys</td><td>1</td></tr> <tr><td>Totals</td><td>549</td></tr> </table>	Cars	548	Trucks	0	Heavys	1	Totals	549	↓	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>61</td><td>0</td><td>281</td><td>342</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Totals</td><td>61</td><td>0</td><td>281</td><td></td></tr> </table>	Cars	61	0	281	342	Trucks	0	0	0	0	Heavys	0	0	0	0	Totals	61	0	281		Peds Cross: ☒ South Peds: 12 South Entering: 342 South Leg Total: 891
Cars	548																															
Trucks	0																															
Heavys	1																															
Totals	549																															
Cars	61	0	281	342																												
Trucks	0	0	0	0																												
Heavys	0	0	0	0																												
Totals	61	0	281																													

Comments

Accu-Traffic Inc.

Total Count Diagram

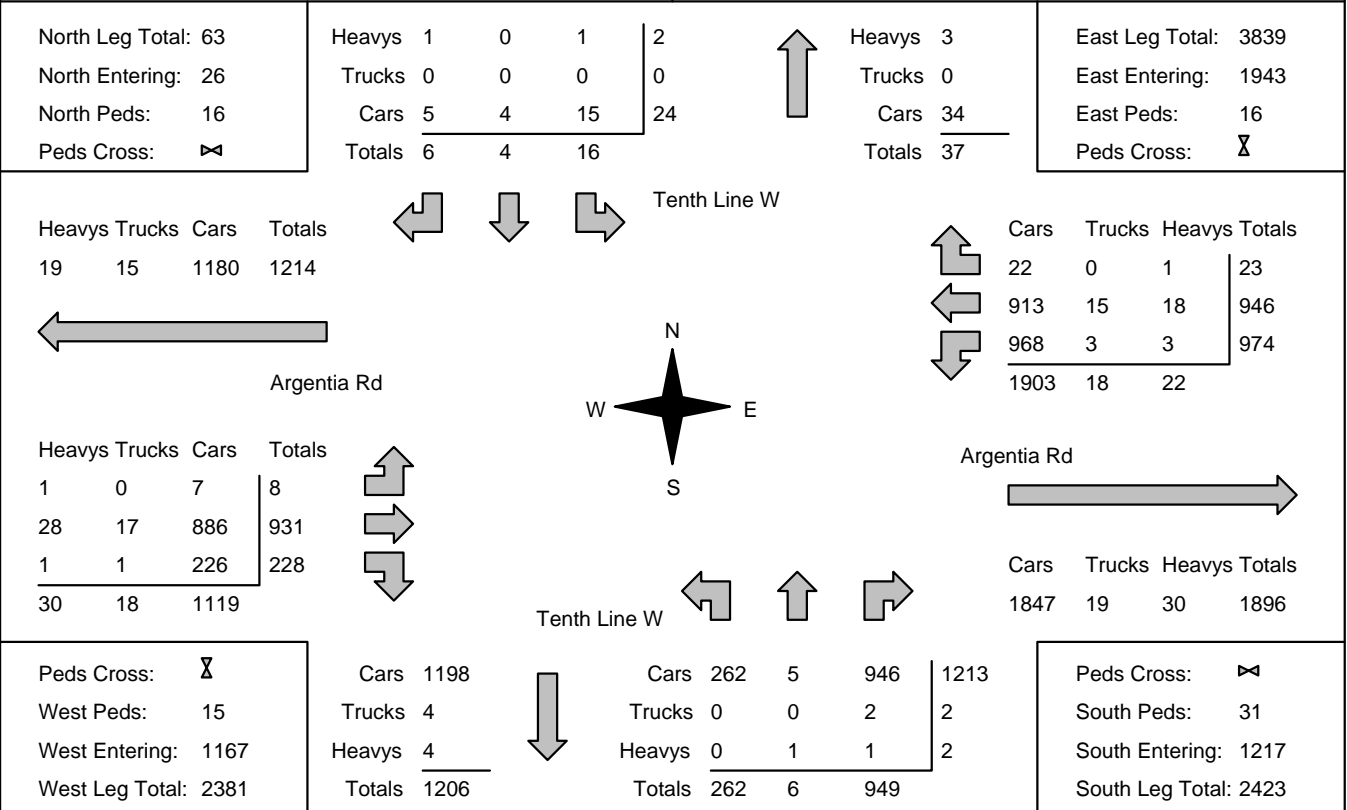
Municipality: Mississauga
Site #: 2512400004
Intersection: Argentia Rd & Tenth Line W
TFR File #: 1
Count date: 6-Aug-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Signalized Intersection ****

Major Road: Argentia Rd runs W/E



Comments



Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

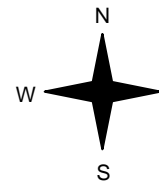
Traffic Count Summary

Intersection: Argentia Rd & Tenth Line W Count Date: 6-Aug-25 Municipality: Mississauga

North Approach Totals						North/South Total Approaches	South Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	2	0	1	3	1	306	8:00:00	123	1	179	303	4
9:00:00	2	1	1	4	5	287	9:00:00	43	4	236	283	9
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	10	1	2	13	2	302	17:00:00	35	1	253	289	6
18:00:00	2	2	2	6	8	348	18:00:00	61	0	281	342	12
Totals:	16	4	6	26	16	1243	S Totals:	262	6	949	1217	31
East Approach Totals						East/West Total Approaches	West Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	49	113	0	162	0	431	8:00:00	1	216	52	269	1
9:00:00	83	115	17	215	3	492	9:00:00	6	251	20	277	5
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	391	335	1	727	6	1001	17:00:00	0	214	60	274	1
18:00:00	451	383	5	839	7	1186	18:00:00	1	250	96	347	8
Totals:	974	946	23	1943	16	3110	W Totals:	8	931	228	1167	15
Calculated Values for Traffic Crossing Major Street												
Hours Ending:	7:00	8:00	9:00	16:00		17:00	18:00	0:00	0:00			
Crossing Values:	0	127	57	0		53	80	0	0			

Accu-Traffic Inc.

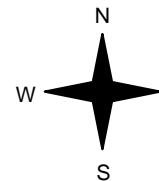
Morning Peak Diagram	Specified Period From: 7:00:00 To: 9:00:00	One Hour Peak From: 8:00:00 To: 9:00:00
Municipality: Mississauga Site #: 2512400005 Intersection: Ninth Line & Argentia Rd TFR File #: 1 Count date: 6-Aug-25	Weather conditions: Person counted: Person prepared: Person checked:	
** Signalized Intersection **	Major Road: Ninth Line runs N/S	

North Leg Total: 858 North Entering: 567 North Peds: 0 Peds Cross: ☒	<table style="margin: auto;"> <tr> <td style="padding: 5px;">Heavys</td> <td style="padding: 5px;">3</td> <td style="padding: 5px;">0</td> <td style="padding: 5px;">3</td> <td style="padding: 5px;">↑</td> <td style="padding: 5px;">Heavys</td> <td style="padding: 5px;">4</td> <td colspan="2"></td> </tr> <tr> <td style="padding: 5px;">Trucks</td> <td style="padding: 5px;">9</td> <td style="padding: 5px;">1</td> <td style="padding: 5px;">10</td> <td></td> <td style="padding: 5px;">Trucks</td> <td style="padding: 5px;">3</td> <td colspan="2"></td> </tr> <tr> <td style="padding: 5px;">Cars</td> <td style="padding: 5px;">463</td> <td style="padding: 5px;">91</td> <td style="padding: 5px;">554</td> <td></td> <td style="padding: 5px;">Cars</td> <td style="padding: 5px;">284</td> <td colspan="2"></td> </tr> <tr> <td style="padding: 5px;">Totals</td> <td style="padding: 5px;">475</td> <td style="padding: 5px;">92</td> <td style="padding: 5px;"></td> <td></td> <td style="padding: 5px;">Totals</td> <td style="padding: 5px;">291</td> <td colspan="2"></td> </tr> </table> <p style="text-align: center;">Ninth Line</p>  <p style="text-align: center;">Ninth Line</p> <table style="margin: auto;"> <tr> <td style="padding: 5px;">Cars</td> <td style="padding: 5px;">27</td> <td style="padding: 5px;">0</td> <td style="padding: 5px;">2</td> <td style="padding: 5px;"> </td> <td style="padding: 5px;">29</td> </tr> <tr> <td style="padding: 5px;">Trucks</td> <td style="padding: 5px;">40</td> <td style="padding: 5px;">1</td> <td style="padding: 5px;">2</td> <td style="padding: 5px;"> </td> <td style="padding: 5px;">43</td> </tr> <tr> <td style="padding: 5px;">Heavys</td> <td style="padding: 5px;">67</td> <td style="padding: 5px;">1</td> <td style="padding: 5px;">4</td> <td style="padding: 5px;"> </td> <td style="padding: 5px;"></td> </tr> </table> <p style="text-align: center;">Argentia Rd</p> <table style="margin: auto;"> <tr> <td style="padding: 5px;">Cars</td> <td style="padding: 5px;">291</td> <td style="padding: 5px;">2</td> <td style="padding: 5px;">3</td> <td style="padding: 5px;"> </td> <td style="padding: 5px;">296</td> </tr> <tr> <td style="padding: 5px;">Trucks</td> <td style="padding: 5px;">257</td> <td style="padding: 5px;">200</td> <td style="padding: 5px;">457</td> <td style="padding: 5px;"> </td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;">Heavys</td> <td style="padding: 5px;">3</td> <td style="padding: 5px;">1</td> <td style="padding: 5px;">4</td> <td style="padding: 5px;"> </td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;">Totals</td> <td style="padding: 5px;">5</td> <td style="padding: 5px;">2</td> <td style="padding: 5px;">3</td> <td style="padding: 5px;"> </td> <td style="padding: 5px;">5</td> </tr> </table>	Heavys	3	0	3	↑	Heavys	4			Trucks	9	1	10		Trucks	3			Cars	463	91	554		Cars	284			Totals	475	92			Totals	291			Cars	27	0	2		29	Trucks	40	1	2		43	Heavys	67	1	4			Cars	291	2	3		296	Trucks	257	200	457			Heavys	3	1	4			Totals	5	2	3		5	<table style="margin: auto;"> <tr> <td style="padding: 5px;">East Leg Total:</td> <td style="padding: 5px;">368</td> </tr> <tr> <td style="padding: 5px;">East Entering:</td> <td style="padding: 5px;">72</td> </tr> <tr> <td style="padding: 5px;">East Peds:</td> <td style="padding: 5px;">0</td> </tr> <tr> <td style="padding: 5px;">Peds Cross:</td> <td style="padding: 5px;">☒</td> </tr> </table> <table style="margin: auto;"> <tr> <td style="padding: 5px;">Peds Cross:</td> <td style="padding: 5px;">☒</td> </tr> <tr> <td style="padding: 5px;">South Peds:</td> <td style="padding: 5px;">0</td> </tr> <tr> <td style="padding: 5px;">South Entering:</td> <td style="padding: 5px;">466</td> </tr> <tr> <td style="padding: 5px;">South Leg Total:</td> <td style="padding: 5px;">984</td> </tr> </table>	East Leg Total:	368	East Entering:	72	East Peds:	0	Peds Cross:	☒	Peds Cross:	☒	South Peds:	0	South Entering:	466	South Leg Total:	984
Heavys	3	0	3	↑	Heavys	4																																																																																										
Trucks	9	1	10		Trucks	3																																																																																										
Cars	463	91	554		Cars	284																																																																																										
Totals	475	92			Totals	291																																																																																										
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South Entering:	466																																																																																															
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Comments

Accu-Traffic Inc.

Afternoon Peak Diagram	Specified Period From: 16:00:00 To: 18:00:00	One Hour Peak From: 16:45:00 To: 17:45:00
Municipality: Mississauga Site #: 2512400005 Intersection: Ninth Line & Argentia Rd TFR File #: 1 Count date: 6-Aug-25	Weather conditions: Person counted: Person prepared: Person checked:	
** Signalized Intersection **	Major Road: Ninth Line runs N/S	

North Leg Total: 1335 North Entering: 526 North Peds: 0 Peds Cross: ☒	<table style="margin: auto;"> <tr> <td style="text-align: right;">Heavys</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td rowspan="4" style="font-size: 2em; vertical-align: middle;">↑</td> <td style="text-align: left;">Heavys</td> <td style="text-align: center;">2</td> </tr> <tr> <td style="text-align: right;">Trucks</td> <td style="text-align: center;">7</td> <td style="text-align: center;">2</td> <td style="text-align: center;">9</td> <td style="text-align: left;">Trucks</td> <td style="text-align: center;">3</td> </tr> <tr> <td style="text-align: right;">Cars</td> <td style="text-align: center;">445</td> <td style="text-align: center;">69</td> <td style="text-align: center;">514</td> <td style="text-align: left;">Cars</td> <td style="text-align: center;">804</td> </tr> <tr> <td style="text-align: right;">Totals</td> <td style="text-align: center;">453</td> <td style="text-align: center;">73</td> <td></td> <td style="text-align: left;">Totals</td> <td style="text-align: center;">809</td> </tr> </table> <p style="text-align: center;">Ninth Line</p>  <p style="text-align: center;">Ninth Line</p> <table style="margin: auto;"> <tr> <td style="text-align: right;">Cars</td> <td style="text-align: center;">693</td> <td style="text-align: center;">607</td> <td style="text-align: center;">123</td> <td style="text-align: center;">730</td> </tr> <tr> <td style="text-align: right;">Trucks</td> <td style="text-align: center;">8</td> <td style="text-align: center;">2</td> <td style="text-align: center;">1</td> <td style="text-align: center;">3</td> </tr> <tr> <td style="text-align: right;">Heavys</td> <td style="text-align: center;">2</td> <td style="text-align: center;">2</td> <td style="text-align: center;">2</td> <td style="text-align: center;">4</td> </tr> <tr> <td style="text-align: right;">Totals</td> <td style="text-align: center;">703</td> <td style="text-align: center;">611</td> <td style="text-align: center;">126</td> <td></td> </tr> </table>	Heavys	1	2	3	↑	Heavys	2	Trucks	7	2	9	Trucks	3	Cars	445	69	514	Cars	804	Totals	453	73		Totals	809	Cars	693	607	123	730	Trucks	8	2	1	3	Heavys	2	2	2	4	Totals	703	611	126		<table style="margin: auto;"> <tr> <td style="text-align: right;">East Leg Total:</td> <td style="text-align: center;">647</td> </tr> <tr> <td style="text-align: right;">East Entering:</td> <td style="text-align: center;">448</td> </tr> <tr> <td style="text-align: right;">East Peds:</td> <td style="text-align: center;">0</td> </tr> <tr> <td style="text-align: right;">Peds Cross:</td> <td style="text-align: center;">☒</td> </tr> </table> <table style="margin: auto;"> <tr> <td style="text-align: right;">Cars</td> <td style="text-align: center;">197</td> <td style="text-align: center;">1</td> <td style="text-align: center;">0</td> <td style="text-align: center;">198</td> </tr> <tr> <td style="text-align: right;">Trucks</td> <td style="text-align: center;">248</td> <td style="text-align: center;">1</td> <td style="text-align: center;">1</td> <td style="text-align: center;">250</td> </tr> <tr> <td style="text-align: right;">Heavys</td> <td style="text-align: center;">445</td> <td style="text-align: center;">2</td> <td style="text-align: center;">1</td> <td></td> </tr> </table> <p style="text-align: center;">Argentia Rd</p> <table style="margin: auto;"> <tr> <td style="text-align: right;">Cars</td> <td style="text-align: center;">192</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">199</td> </tr> </table>	East Leg Total:	647	East Entering:	448	East Peds:	0	Peds Cross:	☒	Cars	197	1	0	198	Trucks	248	1	1	250	Heavys	445	2	1		Cars	192	3	4	199
Heavys	1	2	3	↑	Heavys		2																																																																				
Trucks	7	2	9		Trucks		3																																																																				
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Cars	192	3	4	199																																																																							
<table style="margin: auto;"> <tr> <td style="text-align: right;">Peds Cross:</td> <td style="text-align: center;">☒</td> </tr> <tr> <td style="text-align: right;">South Peds:</td> <td style="text-align: center;">0</td> </tr> <tr> <td style="text-align: right;">South Entering:</td> <td style="text-align: center;">737</td> </tr> <tr> <td style="text-align: right;">South Leg Total:</td> <td style="text-align: center;">1440</td> </tr> </table>			Peds Cross:	☒	South Peds:	0	South Entering:	737	South Leg Total:	1440																																																																	
Peds Cross:	☒																																																																										
South Peds:	0																																																																										
South Entering:	737																																																																										
South Leg Total:	1440																																																																										

Comments

Accu-Traffic Inc.

Total Count Diagram

Municipality: Mississauga
Site #: 2512400005
Intersection: Ninth Line & Argentia Rd
TFR File #: 1
Count date: 6-Aug-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Signalized Intersection ****

Major Road: Ninth Line runs N/S

North Leg Total: 4094
 North Entering: 2068
 North Peds: 0
 Peds Cross:

Heavys	13	2	15
Trucks	28	4	32
Cars	1709	312	2021
Totals	1750	318	

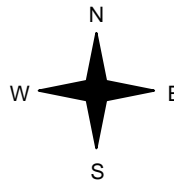


Heavys	12
Trucks	14
Cars	2000
Totals	2026

East Leg Total: 1905
 East Entering: 943
 East Peds: 0
 Peds Cross:



Ninth Line

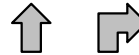


	Cars	Trucks	Heavys	Totals
Northbound	410	2	4	416
Southbound	516	4	7	527
Totals	926	6	11	

Argentia Rd



Ninth Line



Cars	2225	Cars	1590	628	2218
Trucks	32	Trucks	12	4	16
Heavys	20	Heavys	8	12	20
Totals	2277	Totals	1610	644	



Peds Cross:
 South Peds: 0
 South Entering: 2254
 South Leg Total: 4531

Comments



Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc. Traffic Count Summary

Intersection: Ninth Line & Argentia Rd Count Date: 6-Aug-25 Municipality: Mississauga

North Approach Totals						North/South Total Approaches	South Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	91	417	0	508	0	924	8:00:00	0	217	199	416	0
9:00:00	92	475	0	567	0	1033	9:00:00	0	262	204	466	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	70	422	0	492	0	1152	17:00:00	0	552	108	660	0
18:00:00	65	436	0	501	0	1213	18:00:00	0	579	133	712	0
Totals:	318	1750	0	2068	0	4322	S Totals:	0	1610	644	2254	0
East Approach Totals						East/West Total Approaches	West Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	45	0	39	84	0	84	8:00:00	0	0	0	0	0
9:00:00	43	0	29	72	0	72	9:00:00	0	0	0	0	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	184	0	162	346	0	346	17:00:00	0	0	0	0	0
18:00:00	255	0	186	441	0	441	18:00:00	0	0	0	0	0
Totals:	527	0	416	943	0	943	W Totals:	0	0	0	0	0
Calculated Values for Traffic Crossing Major Street												
Hours Ending:	7:00	8:00	9:00	16:00			17:00	18:00	0:00	0:00		
Crossing Values:	0	45	43	0			184	255	0	0		

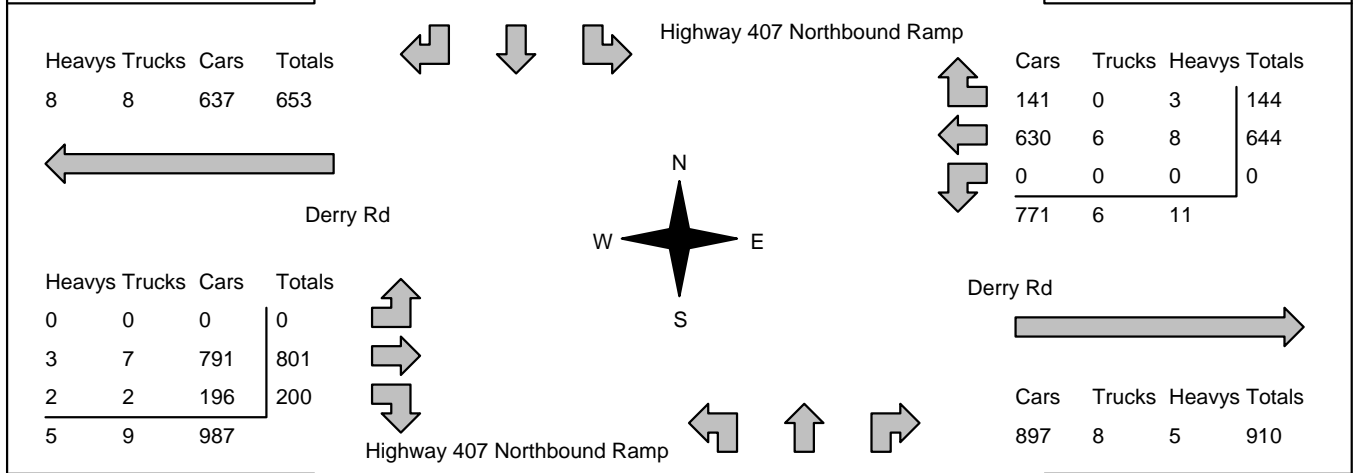
Accu-Traffic Inc.

Morning Peak Diagram	Specified Period From: 7:00:00 To: 9:00:00	One Hour Peak From: 8:00:00 To: 9:00:00
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Municipality: Mississauga Site #: 2512400006 Intersection: Derry Rd & Highway 407 Northbou TFR File #: 1 Count date: 6-Aug-25	Weather conditions: Person counted: Person prepared: Person checked:
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** Signalized Intersection **	Major Road: Derry Rd runs W/E
--------------------------------------	--------------------------------------

North Leg Total: 144 North Entering: 0 North Peds: 0 Peds Cross: ☒	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Cars</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Totals</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	Heavys	0	0	0	0	Trucks	0	0	0	0	Cars	0	0	0	0	Totals	0	0	0	0	↑	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>3</td></tr> <tr><td>Trucks</td><td>0</td></tr> <tr><td>Cars</td><td>141</td></tr> <tr><td>Totals</td><td>144</td></tr> </table>	Heavys	3	Trucks	0	Cars	141	Totals	144	East Leg Total: 1698 East Entering: 788 East Peds: 0 Peds Cross: ☒
Heavys	0	0	0	0																												
Trucks	0	0	0	0																												
Cars	0	0	0	0																												
Totals	0	0	0	0																												
Heavys	3																															
Trucks	0																															
Cars	141																															
Totals	144																															



Peds Cross: ☒ West Peds: 0 West Entering: 1001 West Leg Total: 1654	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>196</td></tr> <tr><td>Trucks</td><td>2</td></tr> <tr><td>Heavys</td><td>2</td></tr> <tr><td>Totals</td><td>200</td></tr> </table>	Cars	196	Trucks	2	Heavys	2	Totals	200	↓	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>7</td><td>0</td><td>106</td><td>113</td></tr> <tr><td>Trucks</td><td>2</td><td>0</td><td>1</td><td>3</td></tr> <tr><td>Heavys</td><td>0</td><td>0</td><td>2</td><td>2</td></tr> <tr><td>Totals</td><td>9</td><td>0</td><td>109</td><td></td></tr> </table>	Cars	7	0	106	113	Trucks	2	0	1	3	Heavys	0	0	2	2	Totals	9	0	109		Peds Cross: ☒ South Peds: 0 South Entering: 118 South Leg Total: 318
Cars	196																															
Trucks	2																															
Heavys	2																															
Totals	200																															
Cars	7	0	106	113																												
Trucks	2	0	1	3																												
Heavys	0	0	2	2																												
Totals	9	0	109																													

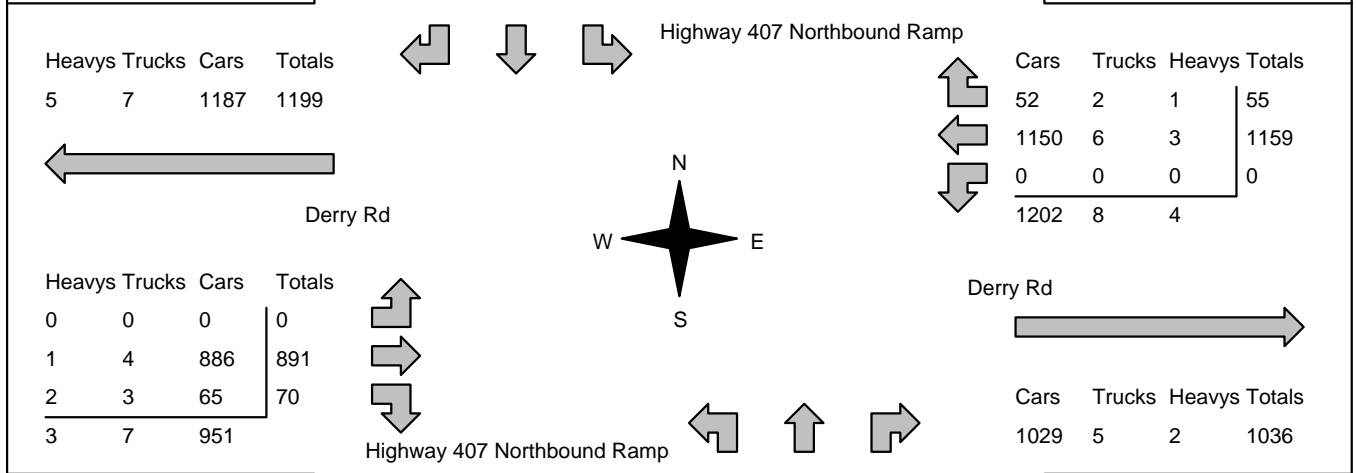
Comments

Accu-Traffic Inc.

<h2>Afternoon Peak Diagram</h2>	Specified Period From: 16:00:00 To: 18:00:00	One Hour Peak From: 16:45:00 To: 17:45:00
Municipality: Mississauga Site #: 2512400006 Intersection: Derry Rd & Highway 407 Northbou TFR File #: 1 Count date: 6-Aug-25	Weather conditions: Person counted: Person prepared: Person checked:	

** Signalized Intersection **	Major Road: Derry Rd runs W/E
--------------------------------------	--------------------------------------

North Leg Total: 55 North Entering: 0 North Peds: 0 Peds Cross: ☒	<table border="1" style="margin: auto;"> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Cars</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Totals</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	Heavys	0	0	0	0	Trucks	0	0	0	0	Cars	0	0	0	0	Totals	0	0	0	0	<table border="1" style="margin: auto;"> <tr><td>Heavys</td><td>1</td></tr> <tr><td>Trucks</td><td>2</td></tr> <tr><td>Cars</td><td>52</td></tr> <tr><td>Totals</td><td>55</td></tr> </table>	Heavys	1	Trucks	2	Cars	52	Totals	55	East Leg Total: 2250 East Entering: 1214 East Peds: 0 Peds Cross: ☒
Heavys	0	0	0	0																											
Trucks	0	0	0	0																											
Cars	0	0	0	0																											
Totals	0	0	0	0																											
Heavys	1																														
Trucks	2																														
Cars	52																														
Totals	55																														



Peds Cross: ☒ West Peds: 0 West Entering: 961 West Leg Total: 2160	<table border="1" style="margin: auto;"> <tr><td>Cars</td><td>65</td></tr> <tr><td>Trucks</td><td>3</td></tr> <tr><td>Heavys</td><td>2</td></tr> <tr><td>Totals</td><td>70</td></tr> </table>	Cars	65	Trucks	3	Heavys	2	Totals	70	<table border="1" style="margin: auto;"> <tr><td>Cars</td><td>37</td><td>0</td><td>143</td><td>180</td></tr> <tr><td>Trucks</td><td>1</td><td>0</td><td>1</td><td>2</td></tr> <tr><td>Heavys</td><td>2</td><td>0</td><td>1</td><td>3</td></tr> <tr><td>Totals</td><td>40</td><td>0</td><td>145</td><td></td></tr> </table>	Cars	37	0	143	180	Trucks	1	0	1	2	Heavys	2	0	1	3	Totals	40	0	145		Peds Cross: ☒ South Peds: 0 South Entering: 185 South Leg Total: 255
Cars	65																														
Trucks	3																														
Heavys	2																														
Totals	70																														
Cars	37	0	143	180																											
Trucks	1	0	1	2																											
Heavys	2	0	1	3																											
Totals	40	0	145																												

Comments

Accu-Traffic Inc.

Total Count Diagram

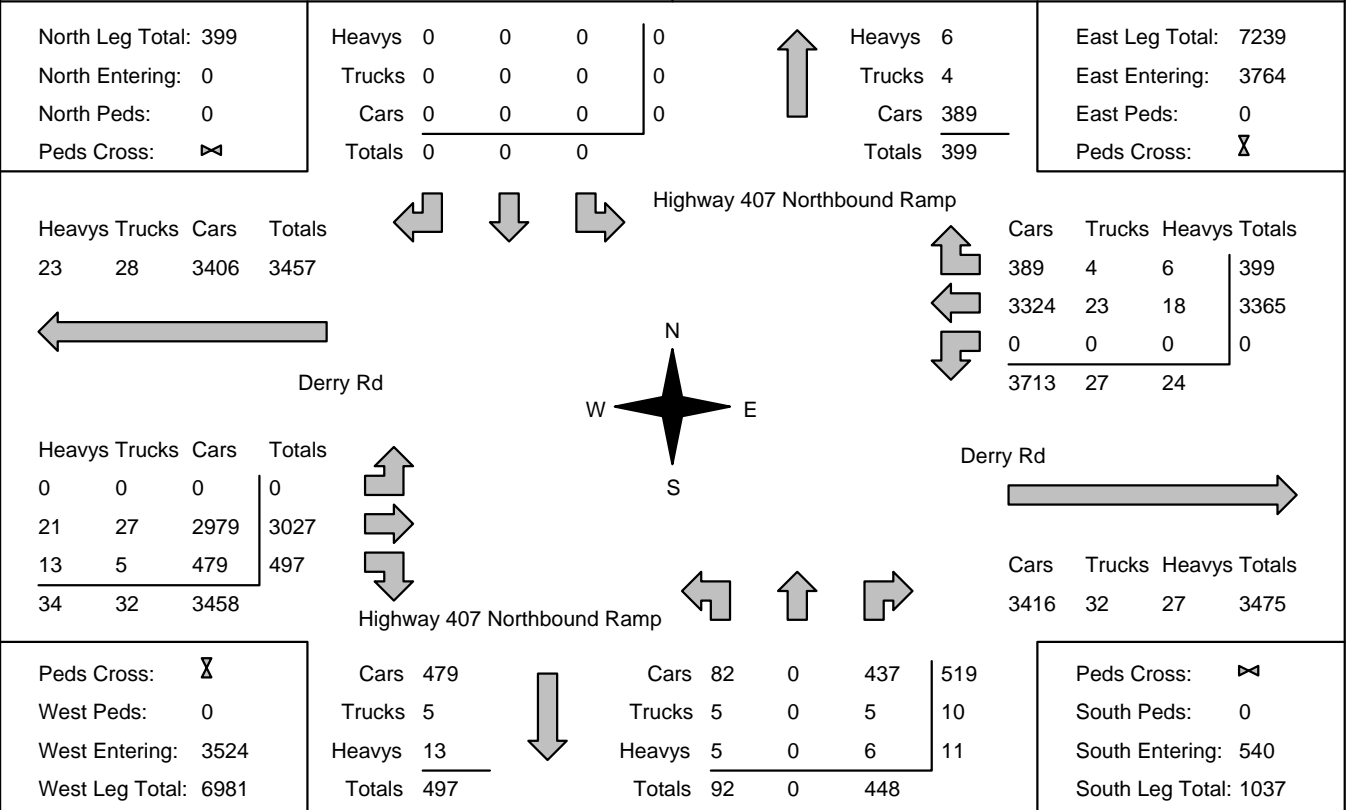
Municipality: Mississauga
Site #: 2512400006
Intersection: Derry Rd & Highway 407 Northbou
TFR File #: 1
Count date: 6-Aug-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Signalized Intersection ****

Major Road: Derry Rd runs W/E



Comments



Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Traffic Count Summary

Intersection: Derry Rd & Highway 407 Northbou Count Date: 6-Aug-25 Municipality: Mississauga


North Approach Totals						North/South Total Approaches	South Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	0	0	0	0	0	91	8:00:00	13	0	78	91	0
9:00:00	0	0	0	0	0	118	9:00:00	9	0	109	118	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	0	0	0	0	0	162	17:00:00	37	0	125	162	0
18:00:00	0	0	0	0	0	169	18:00:00	33	0	136	169	0
Totals:	0	0	0	0	0	540	S Totals:	92	0	448	540	0
East Approach Totals						East/West Total Approaches	West Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	0	580	143	723	0	1471	8:00:00	0	583	165	748	0
9:00:00	0	644	144	788	0	1789	9:00:00	0	801	200	1001	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	0	1040	64	1104	0	1930	17:00:00	0	749	77	826	0
18:00:00	0	1101	48	1149	0	2098	18:00:00	0	894	55	949	0
Totals:	0	3365	399	3764	0	7288	W Totals:	0	3027	497	3524	0
Calculated Values for Traffic Crossing Major Street												
Hours Ending:	7:00	8:00	9:00	16:00			17:00	18:00	0:00	0:00		
Crossing Values:	0	13	9	0			37	33	0	0		

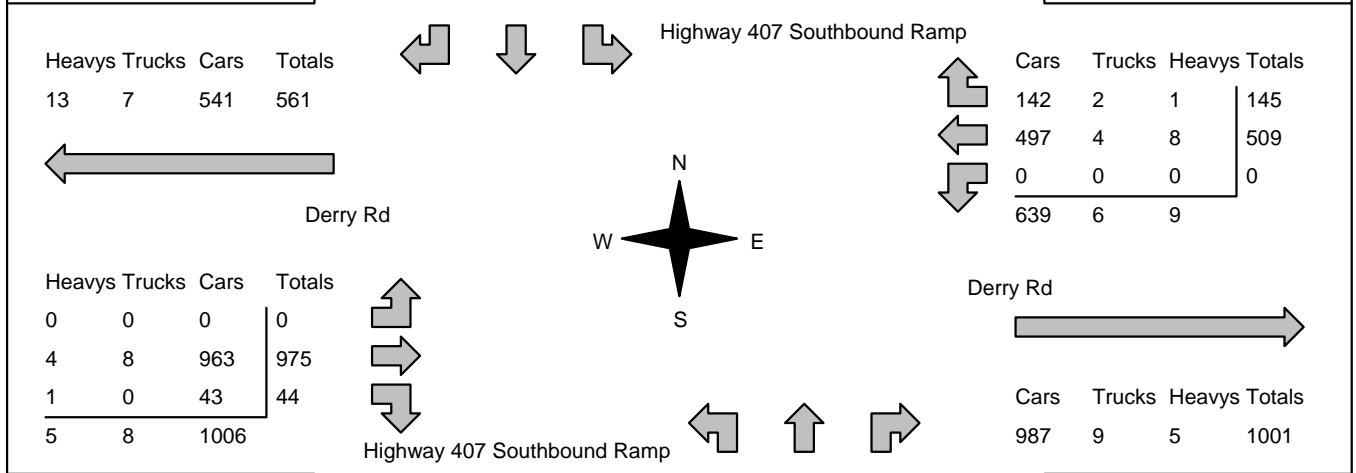
Accu-Traffic Inc.


Morning Peak Diagram	Specified Period From: 7:00:00 To: 9:00:00	One Hour Peak From: 8:00:00 To: 9:00:00
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Municipality: Mississauga Site #: 2512400007 Intersection: Derry Rd & Highway 407 Southbou TFR File #: 1 Count date: 6-Aug-25	Weather conditions: Person counted: Person prepared: Person checked:
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** Signalized Intersection **	Major Road: Derry Rd runs W/E
--------------------------------------	--------------------------------------

North Leg Total: 223 North Entering: 78 North Peds: 0 Peds Cross: ☒	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>5</td><td>0</td><td>1</td><td style="border-left: 1px solid black;">6</td></tr> <tr><td>Trucks</td><td>3</td><td>0</td><td>1</td><td style="border-left: 1px solid black;">4</td></tr> <tr><td>Cars</td><td>44</td><td>0</td><td>24</td><td style="border-left: 1px solid black;">68</td></tr> <tr><td>Totals</td><td>52</td><td>0</td><td>26</td><td style="border-left: 1px solid black;"></td></tr> </table>	Heavys	5	0	1	6	Trucks	3	0	1	4	Cars	44	0	24	68	Totals	52	0	26			<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>1</td></tr> <tr><td>Trucks</td><td>2</td></tr> <tr><td>Cars</td><td>142</td></tr> <tr><td>Totals</td><td>145</td></tr> </table>	Heavys	1	Trucks	2	Cars	142	Totals	145	East Leg Total: 1655 East Entering: 654 East Peds: 0 Peds Cross: ☒
Heavys	5	0	1	6																												
Trucks	3	0	1	4																												
Cars	44	0	24	68																												
Totals	52	0	26																													
Heavys	1																															
Trucks	2																															
Cars	142																															
Totals	145																															



Peds Cross: ☒ West Peds: 0 West Entering: 1019 West Leg Total: 1580	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>43</td><td style="border-left: 1px solid black;">0</td></tr> <tr><td>Trucks</td><td>0</td><td style="border-left: 1px solid black;">0</td></tr> <tr><td>Heavys</td><td>1</td><td style="border-left: 1px solid black;">0</td></tr> <tr><td>Totals</td><td>44</td><td style="border-left: 1px solid black;">0</td></tr> </table>	Cars	43	0	Trucks	0	0	Heavys	1	0	Totals	44	0		<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>0</td><td>0</td><td>0</td><td style="border-left: 1px solid black;">0</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td><td style="border-left: 1px solid black;">0</td></tr> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td><td style="border-left: 1px solid black;">0</td></tr> <tr><td>Totals</td><td>0</td><td>0</td><td>0</td><td style="border-left: 1px solid black;">0</td></tr> </table>	Cars	0	0	0	0	Trucks	0	0	0	0	Heavys	0	0	0	0	Totals	0	0	0	0	Peds Cross: ☒ South Peds: 0 South Entering: 0 South Leg Total: 44
Cars	43	0																																		
Trucks	0	0																																		
Heavys	1	0																																		
Totals	44	0																																		
Cars	0	0	0	0																																
Trucks	0	0	0	0																																
Heavys	0	0	0	0																																
Totals	0	0	0	0																																


Comments

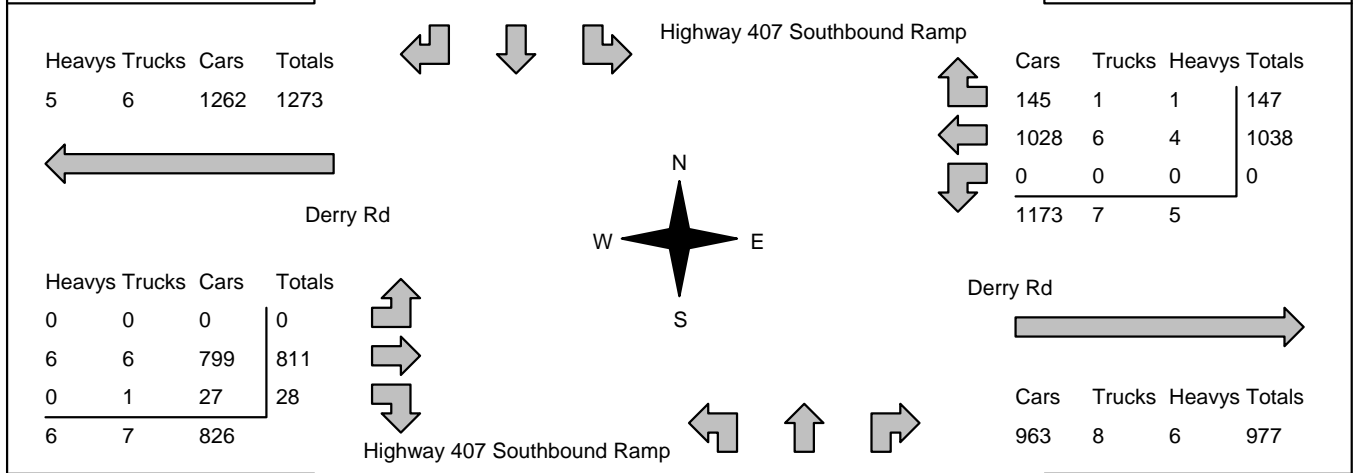
Accu-Traffic Inc.


Afternoon Peak Diagram	Specified Period From: 16:00:00 To: 18:00:00	One Hour Peak From: 16:45:00 To: 17:45:00
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Municipality: Mississauga Site #: 2512400007 Intersection: Derry Rd & Highway 407 Southbou TFR File #: 1 Count date: 6-Aug-25	Weather conditions: Person counted: Person prepared: Person checked:
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** Signalized Intersection **	Major Road: Derry Rd runs W/E
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North Leg Total: 548 North Entering: 401 North Peds: 0 Peds Cross: ☒	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>1</td><td>0</td><td>0</td><td>1</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>2</td><td>2</td></tr> <tr><td>Cars</td><td>234</td><td>0</td><td>164</td><td>398</td></tr> <tr><td>Totals</td><td>235</td><td>0</td><td>166</td><td></td></tr> </table>	Heavys	1	0	0	1	Trucks	0	0	2	2	Cars	234	0	164	398	Totals	235	0	166			<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>1</td></tr> <tr><td>Trucks</td><td>1</td></tr> <tr><td>Cars</td><td>145</td></tr> <tr><td>Totals</td><td>147</td></tr> </table>	Heavys	1	Trucks	1	Cars	145	Totals	147	East Leg Total: 2162 East Entering: 1185 East Peds: 0 Peds Cross: ☒
Heavys	1	0	0	1																												
Trucks	0	0	2	2																												
Cars	234	0	164	398																												
Totals	235	0	166																													
Heavys	1																															
Trucks	1																															
Cars	145																															
Totals	147																															



Peds Cross: ☒ West Peds: 0 West Entering: 839 West Leg Total: 2112	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>27</td></tr> <tr><td>Trucks</td><td>1</td></tr> <tr><td>Heavys</td><td>0</td></tr> <tr><td>Totals</td><td>28</td></tr> </table>	Cars	27	Trucks	1	Heavys	0	Totals	28		<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Totals</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	Cars	0	0	0	0	Trucks	0	0	0	0	Heavys	0	0	0	0	Totals	0	0	0	0	Peds Cross: ☒ South Peds: 0 South Entering: 0 South Leg Total: 28
Cars	27																															
Trucks	1																															
Heavys	0																															
Totals	28																															
Cars	0	0	0	0																												
Trucks	0	0	0	0																												
Heavys	0	0	0	0																												
Totals	0	0	0	0																												

Comments

Accu-Traffic Inc.

Total Count Diagram

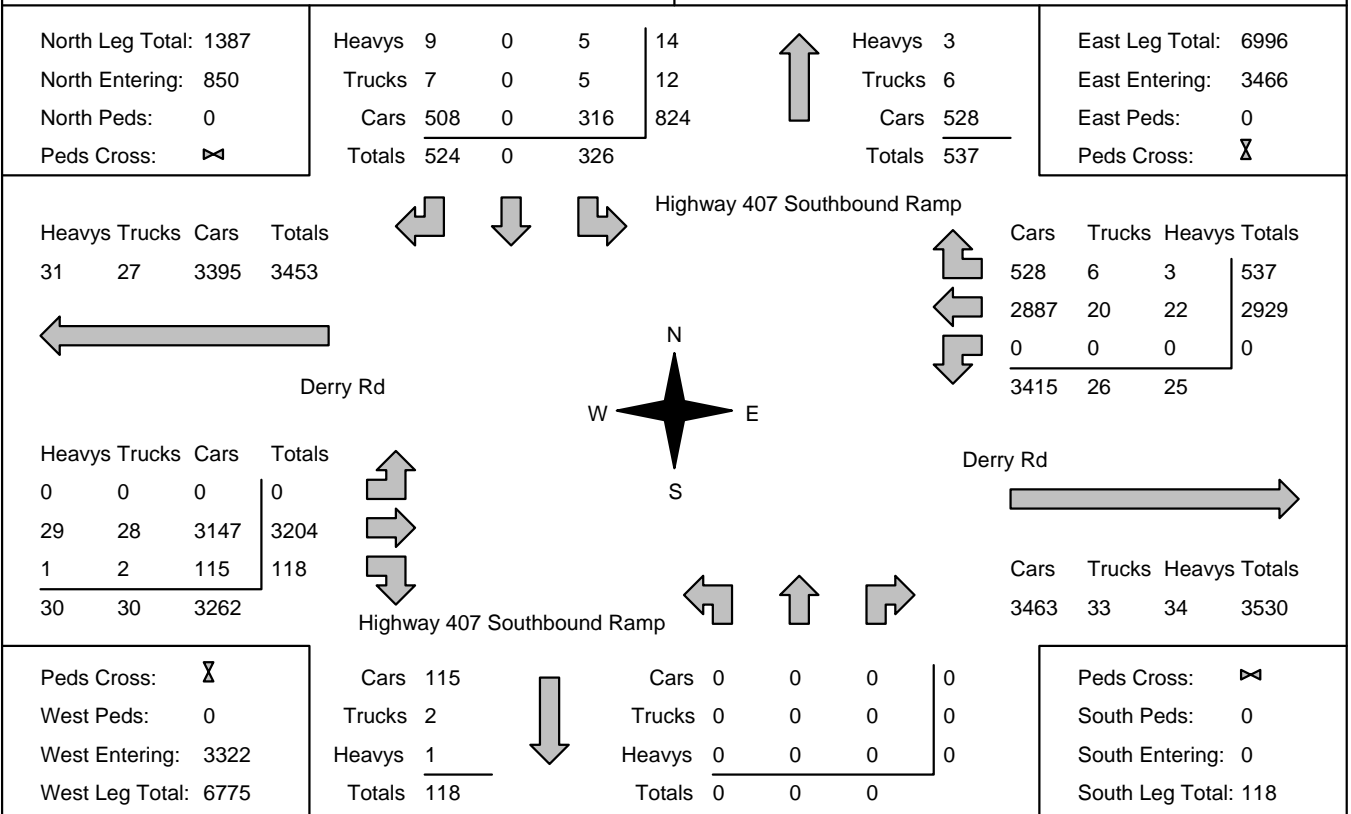
Municipality: Mississauga
Site #: 2512400007
Intersection: Derry Rd & Highway 407 Southbou
TFR File #: 1
Count date: 6-Aug-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Signalized Intersection ****

Major Road: Derry Rd runs W/E



Comments



Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Traffic Count Summary

Intersection: Derry Rd & Highway 407 Southbo Count Date: 6-Aug-25 Municipality: Mississauga


North Approach Totals						North/South Total Approaches	South Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	30	0	33	63	0	63	8:00:00	0	0	0	0	0
9:00:00	26	0	52	78	0	78	9:00:00	0	0	0	0	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	124	0	215	339	0	339	17:00:00	0	0	0	0	0
18:00:00	146	0	224	370	0	370	18:00:00	0	0	0	0	0
Totals:	326	0	524	850	0	850	S Totals:	0	0	0	0	0
East Approach Totals						East/West Total Approaches	West Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	0	459	135	594	0	1333	8:00:00	0	714	25	739	0
9:00:00	0	509	145	654	0	1673	9:00:00	0	975	44	1019	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	0	965	123	1088	0	1813	17:00:00	0	706	19	725	0
18:00:00	0	996	134	1130	0	1969	18:00:00	0	809	30	839	0
Totals:	0	2929	537	3466	0	6788	W Totals:	0	3204	118	3322	0
Calculated Values for Traffic Crossing Major Street												
Hours Ending:	7:00	8:00	9:00	16:00		17:00	18:00	0:00	0:00			
Crossing Values:	0	30	26	0		124	146	0	0			

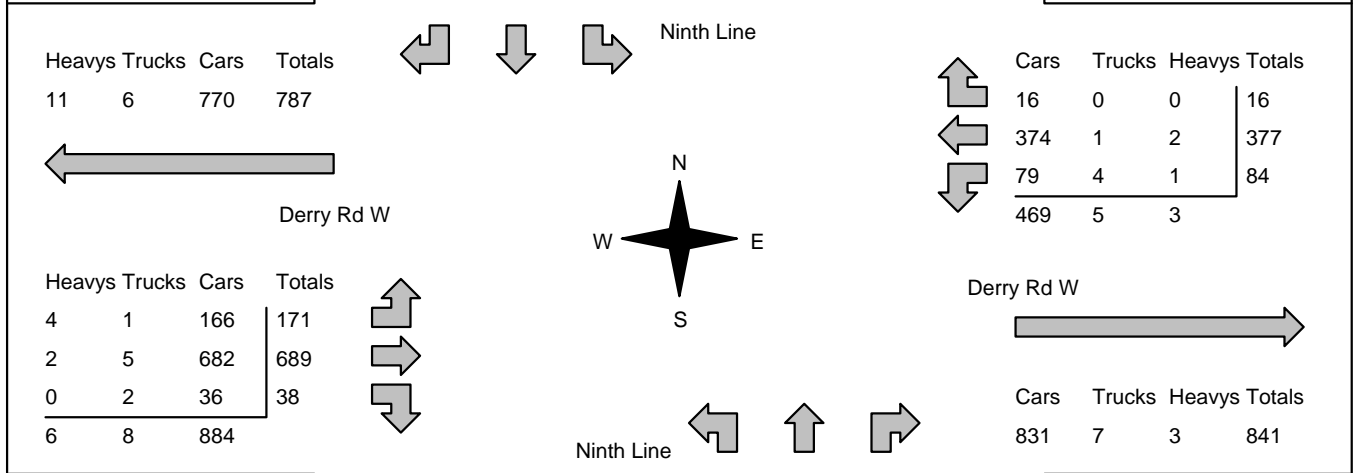
Accu-Traffic Inc.


Morning Peak Diagram	Specified Period From: 7:00:00 To: 9:00:00	One Hour Peak From: 8:00:00 To: 9:00:00
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Municipality: Mississauga Site #: 2512400008 Intersection: Derry Rd W & Ninth Line TFR File #: 1 Count date: 6-Aug-25	Weather conditions: Person counted: Person prepared: Person checked:
--	---

** Signalized Intersection **	Major Road: Derry Rd W runs W/E
--------------------------------------	--

North Leg Total: 992 North Entering: 593 North Peds: 0 Peds Cross: ☒	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>5</td><td>1</td><td>0</td><td>6</td></tr> <tr><td>Trucks</td><td>5</td><td>5</td><td>0</td><td>10</td></tr> <tr><td>Cars</td><td>291</td><td>264</td><td>22</td><td>577</td></tr> <tr><td>Totals</td><td>301</td><td>270</td><td>22</td><td></td></tr> </table>	Heavys	5	1	0	6	Trucks	5	5	0	10	Cars	291	264	22	577	Totals	301	270	22			<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>6</td></tr> <tr><td>Trucks</td><td>6</td></tr> <tr><td>Cars</td><td>387</td></tr> <tr><td>Totals</td><td>399</td></tr> </table>	Heavys	6	Trucks	6	Cars	387	Totals	399	East Leg Total: 1318 East Entering: 477 East Peds: 0 Peds Cross: ☒
Heavys	5	1	0	6																												
Trucks	5	5	0	10																												
Cars	291	264	22	577																												
Totals	301	270	22																													
Heavys	6																															
Trucks	6																															
Cars	387																															
Totals	399																															



Peds Cross: ☒ West Peds: 0 West Entering: 898 West Leg Total: 1685	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>379</td></tr> <tr><td>Trucks</td><td>11</td></tr> <tr><td>Heavys</td><td>2</td></tr> <tr><td>Totals</td><td>392</td></tr> </table>	Cars	379	Trucks	11	Heavys	2	Totals	392		<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>105</td><td>205</td><td>127</td><td>437</td></tr> <tr><td>Trucks</td><td>0</td><td>5</td><td>2</td><td>7</td></tr> <tr><td>Heavys</td><td>4</td><td>2</td><td>1</td><td>7</td></tr> <tr><td>Totals</td><td>109</td><td>212</td><td>130</td><td></td></tr> </table>	Cars	105	205	127	437	Trucks	0	5	2	7	Heavys	4	2	1	7	Totals	109	212	130		Peds Cross: ☒ South Peds: 0 South Entering: 451 South Leg Total: 843
Cars	379																															
Trucks	11																															
Heavys	2																															
Totals	392																															
Cars	105	205	127	437																												
Trucks	0	5	2	7																												
Heavys	4	2	1	7																												
Totals	109	212	130																													

Comments

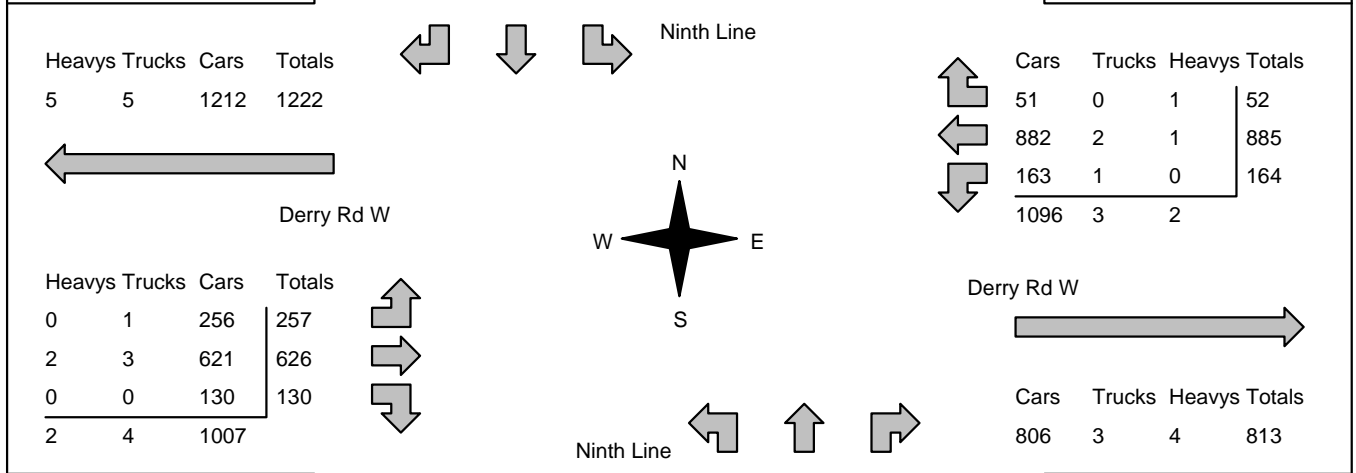
Accu-Traffic Inc.

Afternoon Peak Diagram	Specified Period From: 16:00:00 To: 18:00:00	One Hour Peak From: 16:45:00 To: 17:45:00
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Municipality: Mississauga Site #: 2512400008 Intersection: Derry Rd W & Ninth Line TFR File #: 1 Count date: 6-Aug-25	Weather conditions: Person counted: Person prepared: Person checked:
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** Signalized Intersection **	Major Road: Derry Rd W runs W/E
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North Leg Total: 1368 North Entering: 625 North Peds: 0 Peds Cross: ☒	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>3</td><td>0</td><td>0</td><td style="border-left: 1px solid black;">3</td></tr> <tr><td>Trucks</td><td>1</td><td>3</td><td>0</td><td style="border-left: 1px solid black;">4</td></tr> <tr><td>Cars</td><td>253</td><td>322</td><td>43</td><td style="border-left: 1px solid black;">618</td></tr> <tr><td>Totals</td><td>257</td><td>325</td><td>43</td><td style="border-left: 1px solid black;"></td></tr> </table>	Heavys	3	0	0	3	Trucks	1	3	0	4	Cars	253	322	43	618	Totals	257	325	43		↑	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>3</td></tr> <tr><td>Trucks</td><td>1</td></tr> <tr><td>Cars</td><td>739</td></tr> <tr><td>Totals</td><td>743</td></tr> </table>	Heavys	3	Trucks	1	Cars	739	Totals	743	East Leg Total: 1914 East Entering: 1101 East Peds: 1 Peds Cross: ☒
Heavys	3	0	0	3																												
Trucks	1	3	0	4																												
Cars	253	322	43	618																												
Totals	257	325	43																													
Heavys	3																															
Trucks	1																															
Cars	739																															
Totals	743																															



Peds Cross: ☒ West Peds: 0 West Entering: 1013 West Leg Total: 2235	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>615</td></tr> <tr><td>Trucks</td><td>4</td></tr> <tr><td>Heavys</td><td>0</td></tr> <tr><td>Totals</td><td>619</td></tr> </table>	Cars	615	Trucks	4	Heavys	0	Totals	619	↓	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>77</td><td>432</td><td>142</td><td style="border-left: 1px solid black;">651</td></tr> <tr><td>Trucks</td><td>2</td><td>0</td><td>0</td><td style="border-left: 1px solid black;">2</td></tr> <tr><td>Heavys</td><td>1</td><td>2</td><td>2</td><td style="border-left: 1px solid black;">5</td></tr> <tr><td>Totals</td><td>80</td><td>434</td><td>144</td><td style="border-left: 1px solid black;"></td></tr> </table>	Cars	77	432	142	651	Trucks	2	0	0	2	Heavys	1	2	2	5	Totals	80	434	144		Peds Cross: ☒ South Peds: 1 South Entering: 658 South Leg Total: 1277
Cars	615																															
Trucks	4																															
Heavys	0																															
Totals	619																															
Cars	77	432	142	651																												
Trucks	2	0	0	2																												
Heavys	1	2	2	5																												
Totals	80	434	144																													

Comments

Accu-Traffic Inc.

Total Count Diagram

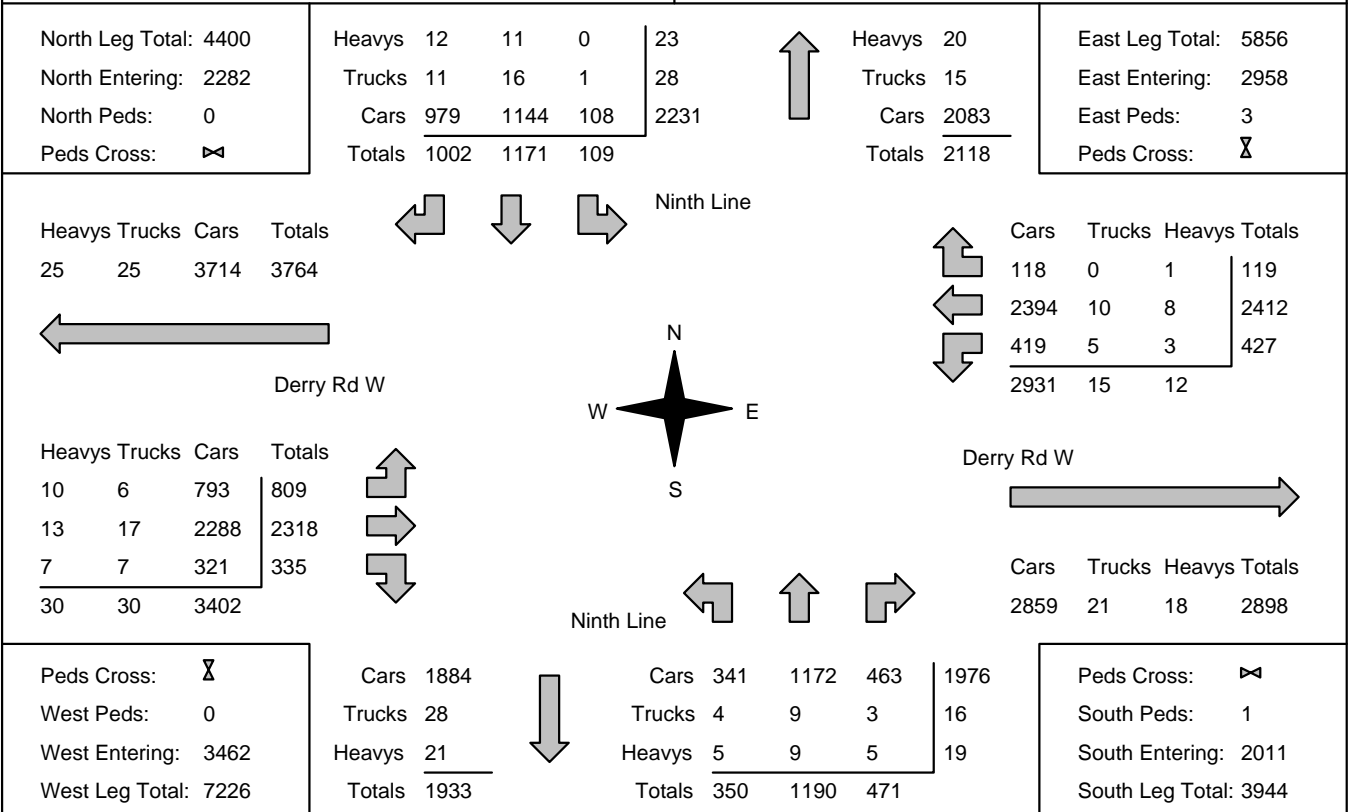
Municipality: Mississauga
Site #: 2512400008
Intersection: Derry Rd W & Ninth Line
TFR File #: 1
Count date: 6-Aug-25

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Signalized Intersection ****

Major Road: Derry Rd W runs W/E



Comments



Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Traffic Count Summary

Intersection: Derry Rd W & Ninth Line Count Date: 6-Aug-25 Municipality: Mississauga

North Approach Totals						North/South Total Approaches	South Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	13	250	242	505	0	822	8:00:00	86	164	67	317	0
9:00:00	22	270	301	593	0	1044	9:00:00	109	212	130	451	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	38	313	215	566	0	1159	17:00:00	80	381	132	593	0
18:00:00	36	338	244	618	0	1268	18:00:00	75	433	142	650	1
Totals:	109	1171	1002	2282	0	4293	S Totals:	350	1190	471	2011	1
East Approach Totals						East/West Total Approaches	West Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	63	395	13	471	2	1130	8:00:00	131	483	45	659	0
9:00:00	84	377	16	477	0	1375	9:00:00	171	689	38	898	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	114	809	37	960	0	1812	17:00:00	249	486	117	852	0
18:00:00	166	831	53	1050	1	2103	18:00:00	258	660	135	1053	0
Totals:	427	2412	119	2958	3	6420	W Totals:	809	2318	335	3462	0
Calculated Values for Traffic Crossing Major Street												
Hours Ending:	7:00	8:00	9:00	16:00			17:00	18:00	0:00	0:00		
Crossing Values:	0	351	401	0			499	545	0	0		



Appendix D: **Signal Timing Plan**



MISSISSAUGA

File: CA.13.SIG
Signal Timing Request
RT.07. 5401
RT.07. 5402
RT.07. 5403
RT.07. 5409
RT.07. 5512

August 14, 2025

To Baharak Hosseini:

Re: Traffic Signal Timing

WCB N @ Highway 401/ Off-Ramp- North Terminal
WCB N @ Highway 401/ Off-Ramp- South Terminal
WCB N @ Argentia Road
TENTH LINE N @ Argentia Road
NINTH LINE N @ Argentia

The side street phases (4,8) are actuated, unless noted in the timing plan, this means a vehicle or pedestrian must be present on the side street before the side street is given a green indication. Vehicle presence on the side street would result in a possible green time of between the minimum and maximum time noted, depending on demand. Also phases 1 and 5 are also actuated. Pedestrian “Walk” and flashing “Don’t Walk” time on the side street, as noted, would be used in the event that the pedestrian push button is activated. During the side street pedestrian indications, the side street vehicle green is concurrently displayed. Should there be no demand on the actuated phase, the signals would result in a green indication on the major street (2,6).

Note: All times recorded in seconds, based on full demand.

The time of day plan is used for system control operation. In the event that the coordination pattern has a cycle length, offset and split value identified, the cycle length, split and offset values, as noted, would be used. However, when the time of day plan is programmed using ‘Action’ 8, the mode is ‘Free’, meaning no cycle length, split and offset values are given and the intersection operates using the phase timings provided in the report.

The phases for each intersection are included in the “Phasing Info” tab of the attached spreadsheet. If the Leading Pedestrian Interval (LPI) is programmed at the intersection for phase 2 and/or 6, the pedestrian ‘Walk’ indication will be displayed 5 seconds in advance

To Baharak Hosseini
Re: Traffic Signal Timing
August 14, 2025

2

of the green signal indication. However, in order for the Leading Pedestrian Interval to be displayed 5 seconds in advance of the green signal indication for phase 4 or 8, the pedestrian push button must be pressed, unless noted in the timing plan. Should an LPI be programmed at the intersection, it will be noted in the “Phasing Info” tab on the attached spreadsheet.

Should you require further information, please contact Amir Koda, at (905) 615-3200 ext. 3468.

Thank you,

Amir Koda
ITS Technologist
Traffic Systems and ITS
Transportation and Works Department
City of Mississauga
(905) 615-3200 ext. 3468
amir.koda@mississauga.ca

Location	WINSTON CHURCHILL BOULEVARD N @ Highway 401/ Off-
Phase 1	
Phase 2	WCB - SB
Phase 3	EBL/EBR Split Phase
Phase 4	401 N. Term (WB)
Phase 5	
Phase 6	WCB - NB
Phase 7	
Phase 8	Computer Phase

Location	Winston Churchill Boulevard @ Highway 401_Off-Ramp- South Terminal
Phase 1	
Phase 2	Winston Churchill Boulevard (N/S)
Phase 3	
Phase 4	Highway 401/ Off-Ramp- South Terminal (EB)

Location	WINSTON CHURCHILL BOULEVARD N @ Argentia Road	LPI	Bike Phase
Phase 1	WCB - NBL Protected + EBRT		
Phase 2	WCB - SB	5 Sec	
Phase 3	Argentia Road - EBL Protected + SBRT		
Phase 4	Argentia Road - WB	5 Sec	✓
Phase 5	WCB - SBL Protected + WBRT		
Phase 6	WCB - NB	5 Sec	✓
Phase 7	Argentia Road - WBL		
Phase 8	Argentia Road - EB	5 Sec	✓

Location	TENTH LINE N @ Argentia Road	LPI	Bike Phase
Phase 1	WBLT - Argentia Rd		
Phase 2	EB - Argentia Rd	5 Sec	✓
Phase 3			
Phase 4	NB - Tenth Line	5 Sec	
Phase 5			
Phase 6	WB - Argentia Rd	5 Sec	✓
Phase 7	NBLT - Tenth Line		
Phase 8	SB - Tenth Line	5 Sec	

Location	NINTH LINE N @ Argentia Road	LPI
Phase 1		
Phase 2	Ninth Line - SB	5 Sec
Phase 3		
Phase 4	Argentia Road - WB	5 Sec
Phase 5		
Phase 6	Ninth Line - NB	5 Sec
Phase 7		
Phase 8	Computer Phase	5 Sec

REGIONAL MUNICIPALITY OF PEEL

Traffic Signal Timing Parameters

Database Date	July 30, 2025		Prepared Date	July 30, 2025
Database Rev	iNet		Completed By	A.P
Timing Card / Field rev	N/A		Checked By	N.M

Location **Derry Road E. @ Ninth Line Road West**

Phase #	Street Name - Direction	Vehicle Minimum (s)	Pedestrian Minimum (s)		Amber (s)	All Red (s)	TIME PERIOD (s)		
			WALK	FDWALK			AM SPLITS	OFF SPLITS	PM SPLITS
			1	Derry Road E. - WB P.P. LT			7.0	0.0	0.0
2	Derry Road E. - EB	10.0	10.0	26.0	4.0	2.5	62.0	48.0	68.0
3	Not in Use	-	-	-	-	-	-	-	-
4	Ninth Line - NB	10.0	10.0	24.0	4.0	2.5	85.0	49.0	77.0
5	Derry Road E. - EB P.P. LT	7.0	0.0	0.0	3.0	0.0	13.0	13.0	16.0
6	Derry Road E. - WB	10.0	10.0	26.0	4.0	2.5	62.0	48.0	67.0
7	Ninth Line - NB P.P. LT	7.0	0.0	0.0	3.0	0.0	18.0	10.0	16.0
8	Ninth Line - SB	10.0	10.0	24.0	4.0	2.5	67.0	39.0	61.0

System Control

Yes

Semi-Actuated Mode

Yes

TIME (M-F)	PEAK	CYCLE LENGTH (s)	OFFSET (s)
06:00 - 09:30	AM	160	115
09:30 - 15:00 19:30 - 00:00	OFF	110	43
15:00 - 19:30	PM	160	154



Appendix E: **Synchro Output Reports**

HCM 6th Signalized Intersection Summary

1: Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal 03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶		↷	↶	↶	↷	↶	↶			↶	↷
Traffic Volume (veh/h)	0	0	0	223	2	470	2	931	199	0	1219	386
Future Volume (veh/h)	0	0	0	223	2	470	2	931	199	0	1219	386
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1772	0	1772	1674	1800	1505	1800	1716	1702	0	1674	1575
Adj Flow Rate, veh/h	0	0	0	236	0	495	2	980	209	0	1283	406
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2	9	0	21	0	6	7	0	9	16
Cap, veh/h	0	0	0	741	0	592	198	1800	383	0	3076	899
Arrive On Green	0.00	0.00	0.00	0.23	0.00	0.23	0.67	0.67	0.67	0.00	0.67	0.67
Sat Flow, veh/h		0		3188	0	2546	281	2674	569	0	4720	1335
Grp Volume(v), veh/h		0.0		236	0	495	2	597	592	0	1283	406
Grp Sat Flow(s),veh/h/ln				1594	0	1273	281	1630	1613	0	1523	1335
Q Serve(g_s), s				9.8	0.0	29.6	0.5	30.2	30.3	0.0	20.4	22.9
Cycle Q Clear(g_c), s				9.8	0.0	29.6	20.9	30.2	30.3	0.0	20.4	22.9
Prop In Lane				1.00		1.00	1.00		0.35	0.00		1.00
Lane Grp Cap(c), veh/h				741	0	592	198	1097	1086	0	3076	899
V/C Ratio(X)				0.32	0.00	0.84	0.01	0.54	0.55	0.00	0.42	0.45
Avail Cap(c_a), veh/h				1096	0	875	198	1097	1086	0	3076	899
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				50.9	0.0	58.5	16.6	13.5	13.5	0.0	11.9	12.3
Incr Delay (d2), s/veh				0.2	0.0	4.7	0.1	1.9	2.0	0.0	0.4	1.6
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.9	0.0	7.4	0.0	3.6	3.6	0.0	2.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				51.1	0.0	63.2	16.7	15.4	15.5	0.0	12.3	13.9
LnGrp LOS				D		E	B	B	B		B	B
Approach Vol, veh/h					731			1191			1689	
Approach Delay, s/veh					59.3			15.4			12.7	
Approach LOS					E			B			B	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		115.2		44.8		115.2						
Change Period (Y+Rc), s		7.5		7.6		7.5						
Max Green Setting (Gmax), s		46.9		55.0		68.4						
Max Q Clear Time (g_c+I1), s		24.9		31.6		32.3						
Green Ext Time (p_c), s		19.0		5.4		25.2						
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				23.0								
HCM 6th LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary
 2: Winston Churchill Blvd & Hwy 401 EB Ramp Terminal

03/05/2026



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘↘↘	↘		↑↑↑	↑↑↑	
Traffic Volume (veh/h)	478	211	0	659	716	730
Future Volume (veh/h)	478	211	0	659	716	730
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1674	1758	0	1758	1702	1646
Adj Flow Rate, veh/h	503	222	0	694	754	768
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	9	3	0	3	7	11
Cap, veh/h	632	295	0	3367	2173	1012
Arrive On Green	0.20	0.20	0.00	0.70	0.70	0.70
Sat Flow, veh/h	3188	1490	0	5115	3250	1442
Grp Volume(v), veh/h	503	222	0	694	754	768
Grp Sat Flow(s),veh/h/ln	1594	1490	0	1600	1549	1442
Q Serve(g_s), s	24.0	22.5	0.0	8.1	15.4	54.4
Cycle Q Clear(g_c), s	24.0	22.5	0.0	8.1	15.4	54.4
Prop In Lane	1.00	1.00	0.00			1.00
Lane Grp Cap(c), veh/h	632	295	0	3367	2173	1012
V/C Ratio(X)	0.80	0.75	0.00	0.21	0.35	0.76
Avail Cap(c_a), veh/h	1445	675	0	3367	2173	1012
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.84	1.00	1.00
Uniform Delay (d), s/veh	61.0	60.4	0.0	8.3	9.4	15.2
Incr Delay (d2), s/veh	2.3	3.8	0.0	0.1	0.4	5.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	6.9	0.0	0.6	1.1	4.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	63.4	64.3	0.0	8.4	9.9	20.6
LnGrp LOS	E	E		A	A	C
Approach Vol, veh/h	725			694	1522	
Approach Delay, s/veh	63.7			8.4	15.3	
Approach LOS	E			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		119.8		40.2		119.8
Change Period (Y+Rc), s		7.5		8.5		7.5
Max Green Setting (Gmax), s		71.5		72.5		71.5
Max Q Clear Time (g_c+I1), s		10.1		26.0		56.4
Green Ext Time (p_c), s		16.8		5.7		13.9
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			25.6			
HCM 6th LOS			C			
Notes						
User approved volume balancing among the lanes for turning movement.						

HCM 6th Signalized Intersection Summary

3: Winston Churchill Blvd & Argentia Rd

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	320	175	57	74	73	135	75	955	95	272	439	152
Future Volume (veh/h)	320	175	57	74	73	135	75	955	95	272	439	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.98		0.97	1.00		1.00	1.00		0.99
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	1826	1885	1870	1811	1870	1781	1870	1870	1841	1856	1796	1752
Adj Flow Rate, veh/h	337	184	60	78	77	142	79	1005	0	286	462	160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	1	2	6	2	8	2	2	4	3	7	10
Cap, veh/h	316	1021	508	368	801	471	147	2201		321	2365	851
Arrive On Green	0.09	0.28	0.28	0.05	0.23	0.23	0.04	0.43	0.00	0.19	0.96	0.96
Sat Flow, veh/h	3374	3582	1547	1725	3554	1463	3456	5106	1560	3428	4904	1476
Grp Volume(v), veh/h	337	184	60	78	77	142	79	1005	0	286	462	160
Grp Sat Flow(s),veh/h/ln	1687	1791	1547	1725	1777	1463	1728	1702	1560	1714	1635	1476
Q Serve(g_s), s	15.0	6.2	4.3	5.5	2.7	11.7	3.6	22.3	0.0	13.0	0.7	0.6
Cycle Q Clear(g_c), s	15.0	6.2	4.3	5.5	2.7	11.7	3.6	22.3	0.0	13.0	0.7	0.6
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	316	1021	508	368	801	471	147	2201		321	2365	851
V/C Ratio(X)	1.07	0.18	0.12	0.21	0.10	0.30	0.54	0.46		0.89	0.20	0.19
Avail Cap(c_a), veh/h	316	1242	604	465	1222	645	324	2201		321	2365	851
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	72.5	43.1	37.6	44.4	49.1	41.1	75.1	32.3	0.0	64.2	1.5	1.0
Incr Delay (d2), s/veh	69.0	0.1	0.1	0.3	0.1	0.4	3.1	0.7	0.0	22.0	0.2	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	8.1	2.0	1.2	1.7	0.9	3.0	1.3	6.0	0.0	5.0	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	141.5	43.2	37.7	44.7	49.1	41.4	78.1	32.9	0.0	86.2	1.6	1.4
LnGrp LOS	F	D	D	D	D	D	E	C		F	A	A
Approach Vol, veh/h		581			297			1084			908	
Approach Delay, s/veh		99.7			44.3			36.2			28.2	
Approach LOS		F			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.8	84.7	20.0	43.5	20.0	76.5	10.4	53.1				
Change Period (Y+Rc), s	5.0	7.5	5.0	7.5	5.0	7.5	3.0	7.5				
Max Green Setting (Gmax), s	15.0	50.0	15.0	55.0	15.0	50.0	16.5	55.5				
Max Q Clear Time (g_c+15), s	15.6	2.7	17.0	13.7	15.0	24.3	7.5	8.2				
Green Ext Time (p_c), s	0.2	10.9	0.0	2.2	0.0	16.6	0.2	3.7				

Intersection Summary

HCM 6th Ctrl Delay, s/veh	47.4
HCM 6th LOS	D

Notes

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

HCM 6th Signalized Intersection Summary

4: Tenth Line W & Argentia Rd

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	263	36	69	122	10	73	1	214	2	1	1
Future Volume (veh/h)	3	263	36	69	122	10	73	1	214	2	1	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	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		No		No
Adj Sat Flow, veh/h/ln	1900	1841	1900	1826	1826	1900	1900	1900	1885	1159	1900	1900
Adj Flow Rate, veh/h	3	274	38	72	127	10	76	1	223	2	1	1
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, %	0	4	0	5	5	0	0	0	1	50	0	0
Cap, veh/h	654	811	706	578	1010	887	438	2	416	196	127	127
Arrive On Green	0.44	0.44	0.44	0.07	0.55	0.55	0.07	0.26	0.26	0.15	0.15	0.15
Sat Flow, veh/h	1266	1841	1601	1739	1826	1603	1810	7	1600	715	870	870
Grp Volume(v), veh/h	3	274	38	72	127	10	76	0	224	2	0	2
Grp Sat Flow(s),veh/h/ln	1266	1841	1601	1739	1826	1603	1810	0	1608	715	0	1739
Q Serve(g_s), s	0.1	7.3	1.0	1.5	2.5	0.2	2.5	0.0	9.0	0.2	0.0	0.1
Cycle Q Clear(g_c), s	0.1	7.3	1.0	1.5	2.5	0.2	2.5	0.0	9.0	0.6	0.0	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.50
Lane Grp Cap(c), veh/h	654	811	706	578	1010	887	438	0	418	196	0	254
V/C Ratio(X)	0.00	0.34	0.05	0.12	0.13	0.01	0.17	0.00	0.54	0.01	0.00	0.01
Avail Cap(c_a), veh/h	654	811	706	649	1010	887	509	0	954	406	0	765
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.8	13.8	12.0	8.9	8.0	7.5	22.2	0.0	23.9	27.8	0.0	27.4
Incr Delay (d2), s/veh	0.0	1.1	0.1	0.1	0.3	0.0	0.2	0.0	1.1	0.0	0.0	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	0.0	0.4	0.0	0.0	0.1	0.0	0.4	0.0	1.4	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	11.8	14.9	12.2	9.0	8.3	7.6	22.4	0.0	24.9	27.8	0.0	27.4
LnGrp LOS	B	B	B	A	A	A	C		C	C		C
Approach Vol, veh/h		315		209		300			4			
Approach Delay, s/veh		14.6		8.5		24.3			27.6			
Approach LOS		B		A		C			C			
Timer - Assigned Phs	1	2	4	6	7	8						
Phs Duration (G+Y+Rc), s	8.4	40.6	26.0	49.0	8.6	17.5						
Change Period (Y+Rc), s	3.0	7.5	6.5	7.5	3.0	6.5						
Max Green Setting (Gmax), s	30.5	30.0	44.5	41.5	8.5	33.0						
Max Q Clear Time (g_c+1/3), s	13.5	9.3	11.0	4.5	4.5	2.6						
Green Ext Time (p_c), s	0.1	4.1	4.2	2.0	0.1	0.0						

Intersection Summary

HCM 6th Ctrl Delay, s/veh	16.6
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary

5: Ninth Line & Argentia Rd

03/05/2026



Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations										
Traffic Volume (veh/h)	43	29	0	262	204	92	475	0	0	0
Future Volume (veh/h)	43	29	0	262	204	92	475	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	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		
Work Zone On Approach	No			No		No				
Adj Sat Flow, veh/h/ln	1796	1796	0	1870	1870	1870	1856	0		
Adj Flow Rate, veh/h	46	31	0	282	219	99	511	0		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93		
Percent Heavy Veh, %	7	7	0	2	2	2	3	0		
Cap, veh/h	397	353	0	1074	910	559	1065	0		
Arrive On Green	0.23	0.23	0.00	0.57	0.57	0.57	0.57	0.00		
Sat Flow, veh/h	1711	1522	0	1870	1585	897	1856	0		
Grp Volume(v), veh/h	46	31	0	282	219	99	511	0		
Grp Sat Flow(s),veh/h/ln	1711	1522	0	1870	1585	897	1856	0		
Q Serve(g_s), s	1.4	1.0	0.0	4.9	4.4	4.0	10.4	0.0		
Cycle Q Clear(g_c), s	1.4	1.0	0.0	4.9	4.4	8.9	10.4	0.0		
Prop In Lane	1.00	1.00	0.00		1.00	1.00		0.00		
Lane Grp Cap(c), veh/h	397	353	0	1074	910	559	1065	0		
V/C Ratio(X)	0.12	0.09	0.00	0.26	0.24	0.18	0.48	0.00		
Avail Cap(c_a), veh/h	637	567	0	1074	910	559	1065	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	19.5	19.4	0.0	6.9	6.8	9.1	8.1	0.0		
Incr Delay (d2), s/veh	0.1	0.1	0.0	0.6	0.6	0.7	1.5	0.0		
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.0	0.2	0.2	0.1	0.5	0.0		
Unsig. Movement Delay, s/veh										
LnGrp Delay(d), s/veh	19.7	19.5	0.0	7.5	7.4	9.8	9.6	0.0		
LnGrp LOS	B	B		A	A	A	A			
Approach Vol, veh/h	77			501			610			
Approach Delay, s/veh	19.6			7.5			9.7			
Approach LOS	B			A			A			
Timer - Assigned Phs		2		4			6			
Phs Duration (G+Y+Rc), s		43.5		21.0			43.5			
Change Period (Y+Rc), s		6.5		6.0			6.5			
Max Green Setting (Gmax), s		37.0		24.0			37.0			
Max Q Clear Time (g_c+I1), s		12.4		3.4			6.9			
Green Ext Time (p_c), s		9.6		0.3			6.1			
Intersection Summary										
HCM 6th Ctrl Delay, s/veh				9.4						
HCM 6th LOS				A						

HCM 6th Signalized Intersection Summary

6: Ninth Line & Derry Rd E/Derry Rd W

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	689	38	84	377	16	105	205	127	22	270	301
Future Volume (veh/h)	171	689	38	84	377	16	105	205	127	22	270	301
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1870	1811	1811	1885	1900	1841	1841	1856	1900	1856	1841
Adj Flow Rate, veh/h	176	710	39	87	389	16	108	211	131	23	278	310
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, %	3	2	6	6	1	0	4	4	3	0	3	4
Cap, veh/h	598	1839	101	477	1821	75	237	590	504	290	451	380
Arrive On Green	0.12	1.00	1.00	0.04	0.52	0.52	0.06	0.32	0.32	0.24	0.24	0.24
Sat Flow, veh/h	1767	3425	188	1725	3506	144	1753	1841	1572	1055	1856	1560
Grp Volume(v), veh/h	176	368	381	87	198	207	108	211	131	23	278	310
Grp Sat Flow(s),veh/h/ln	1767	1777	1837	1725	1791	1859	1753	1841	1572	1055	1856	1560
Q Serve(g_s), s	7.6	0.0	0.0	3.7	9.6	9.6	7.2	14.1	9.9	2.7	21.3	30.0
Cycle Q Clear(g_c), s	7.6	0.0	0.0	3.7	9.6	9.6	7.2	14.1	9.9	4.5	21.3	30.0
Prop In Lane	1.00		0.10	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	598	954	986	477	930	966	237	590	504	290	451	380
V/C Ratio(X)	0.29	0.39	0.39	0.18	0.21	0.21	0.46	0.36	0.26	0.08	0.62	0.82
Avail Cap(c_a), veh/h	602	954	986	511	930	966	299	909	776	432	702	590
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)	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.4	0.0	0.0	16.1	20.8	20.8	42.1	41.7	40.3	48.2	53.9	57.2
Incr Delay (d2), s/veh	0.2	1.1	1.1	0.2	0.5	0.5	1.4	0.4	0.3	0.1	1.4	5.1
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	1.3	0.3	0.3	0.8	2.4	2.5	2.3	4.6	2.7	0.5	7.5	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.7	1.1	1.1	16.3	21.3	21.3	43.4	42.1	40.6	48.3	55.3	62.3
LnGrp LOS	B	A	A	B	C	C	D	D	D	D	E	E
Approach Vol, veh/h		925			492			450			611	
Approach Delay, s/veh		3.7			20.4			42.0			58.6	
Approach LOS		A			C			D			E	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	92.4		57.7	12.6	89.6	12.3	45.4				
Change Period (Y+Rc), s	3.0	6.5		* 6.5	3.0	6.5	3.0	6.5				
Max Green Setting (Gmax), s	10.0	55.5		* 79	10.0	55.5	15.0	60.5				
Max Q Clear Time (g_c+1/3), s	15.5	2.0		16.1	9.6	11.6	9.2	32.0				
Green Ext Time (p_c), s	0.1	17.2		4.7	0.0	7.6	0.2	6.9				

Intersection Summary

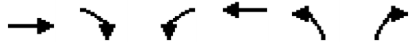
HCM 6th Ctrl Delay, s/veh	27.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
 7: Hwy 407 NB Ramp Terminal & Derry Rd E

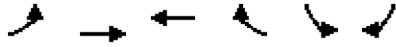
03/05/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	↑
Traffic Volume (veh/h)	801	200	0	644	9	109
Future Volume (veh/h)	801	200	0	644	9	109
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1772	1772	0	1758	1477	1758
Adj Flow Rate, veh/h	826	206	0	664	9	112
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	0	3	23	3
Cap, veh/h	1468	366	0	1837	870	475
Arrive On Green	0.55	0.55	0.00	0.55	0.32	0.32
Sat Flow, veh/h	2758	666	0	3516	2729	1490
Grp Volume(v), veh/h	521	511	0	664	9	112
Grp Sat Flow(s),veh/h/ln	1683	1652	0	1670	1365	1490
Q Serve(g_s), s	16.1	16.1	0.0	8.9	0.2	4.4
Cycle Q Clear(g_c), s	16.1	16.1	0.0	8.9	0.2	4.4
Prop In Lane		0.40	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	926	909	0	1837	870	475
V/C Ratio(X)	0.56	0.56	0.00	0.36	0.01	0.24
Avail Cap(c_a), veh/h	926	909	0	1837	870	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.94	1.00	1.00
Uniform Delay (d), s/veh	11.7	11.7	0.0	10.1	18.6	20.1
Incr Delay (d2), s/veh	2.5	2.5	0.0	0.5	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.6	0.0	0.1	0.0	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	14.2	14.2	0.0	10.6	18.6	21.2
LnGrp LOS	B	B		B	B	C
Approach Vol, veh/h	1032			664	121	
Approach Delay, s/veh	14.2			10.6	21.0	
Approach LOS	B			B	C	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		30.0		50.0		50.0
Change Period (Y+Rc), s		4.5		6.0		6.0
Max Green Setting (Gmax), s		25.5		44.0		44.0
Max Q Clear Time (g_c+I1), s		6.4		18.1		10.9
Green Ext Time (p_c), s		0.6		17.2		13.0
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			13.4			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 8: Derry Rd E & Hwy 407 SB Ramp Terminal

03/05/2026



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	975	509	145	26	52
Future Volume (veh/h)	0	975	509	145	26	52
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1772	1758	1758	1688	1575
Adj Flow Rate, veh/h	0	1026	536	153	27	55
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	3	3	8	16
Cap, veh/h	0	2041	1556	442	877	375
Arrive On Green	0.00	0.61	0.61	0.61	0.28	0.28
Sat Flow, veh/h	0	3544	2655	730	3118	1335
Grp Volume(v), veh/h	0	1026	348	341	27	55
Grp Sat Flow(s),veh/h/ln	0	1683	1670	1627	1559	1335
Q Serve(g_s), s	0.0	13.8	8.3	8.4	0.5	2.5
Cycle Q Clear(g_c), s	0.0	13.8	8.3	8.4	0.5	2.5
Prop In Lane	0.00			0.45	1.00	1.00
Lane Grp Cap(c), veh/h	0	2041	1012	986	877	375
V/C Ratio(X)	0.00	0.50	0.34	0.35	0.03	0.15
Avail Cap(c_a), veh/h	0	2041	1012	986	877	375
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	8.9	7.8	7.8	20.8	21.6
Incr Delay (d2), s/veh	0.0	0.9	0.9	1.0	0.1	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.3	0.3	0.1	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.0	9.8	8.8	8.8	20.9	22.4
LnGrp LOS		A	A	A	C	C
Approach Vol, veh/h		1026	689		82	
Approach Delay, s/veh		9.8	8.8		21.9	
Approach LOS		A	A		C	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				53.0	27.0	53.0
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				48.5	22.5	48.5
Max Q Clear Time (g_c+I1), s				15.8	4.5	10.4
Green Ext Time (p_c), s				20.5	0.3	13.9
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			10.0			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary

1: Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal 03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶		↷	↶	↶	↷	↶	↶			↶	↶
Traffic Volume (veh/h)	7	0	18	802	10	755	5	902	219	0	1161	434
Future Volume (veh/h)	7	0	18	802	10	755	5	902	219	0	1161	434
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1800	0	1800	1786	1800	1660	1800	1702	1772	0	1702	1688
Adj Flow Rate, veh/h	7	0	19	842	0	786	5	940	228	0	1209	452
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, %	0	0	0	1	0	10	0	7	2	0	7	8
Cap, veh/h	0	0	0	1051	0	869	247	1540	373	0	2773	854
Arrive On Green	0.00	0.00	0.00	0.31	0.00	0.31	0.60	0.60	0.60	0.00	0.60	0.60
Sat Flow, veh/h		0		3402	0	2813	445	2581	625	0	4799	1430
Grp Volume(v), veh/h		0.0		842	0	786	5	588	580	0	1209	452
Grp Sat Flow(s),veh/h/ln				1701	0	1406	445	1617	1589	0	1549	1430
Q Serve(g_s), s				36.4	0.0	42.9	1.0	36.9	37.1	0.0	22.7	29.8
Cycle Q Clear(g_c), s				36.4	0.0	42.9	23.7	36.9	37.1	0.0	22.7	29.8
Prop In Lane				1.00		1.00	1.00		0.39	0.00		1.00
Lane Grp Cap(c), veh/h				1051	0	869	247	965	948	0	2773	854
V/C Ratio(X)				0.80	0.00	0.90	0.02	0.61	0.61	0.00	0.44	0.53
Avail Cap(c_a), veh/h				1080	0	893	247	965	948	0	2773	854
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				50.8	0.0	53.0	24.0	20.4	20.5	0.0	17.6	19.0
Incr Delay (d2), s/veh				4.3	0.0	12.4	0.2	2.9	2.9	0.0	0.5	2.3
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				11.5	0.0	12.1	0.1	6.9	6.8	0.0	3.7	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				55.1	0.0	65.4	24.2	23.3	23.4	0.0	18.1	21.4
LnGrp LOS				E		E	C	C	C		B	C
Approach Vol, veh/h					1628			1173			1661	
Approach Delay, s/veh					60.1			23.4			19.0	
Approach LOS					E			C			B	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		103.0		57.0		103.0						
Change Period (Y+Rc), s		7.5		7.6		7.5						
Max Green Setting (Gmax), s		48.7		50.8		48.7						
Max Q Clear Time (g_c+I1), s		31.8		44.9		39.1						
Green Ext Time (p_c), s		14.7		4.5		8.2						
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				35.1								
HCM 6th LOS				D								
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary
 2: Winston Churchill Blvd & Hwy 401 EB Ramp Terminal

03/05/2026



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↶↶↶	↷		↶↶↶	↶↶↶	
Traffic Volume (veh/h)	340	329	0	763	1417	572
Future Volume (veh/h)	340	329	0	763	1417	572
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1617	1744	0	1744	1772	1603
Adj Flow Rate, veh/h	467	237	0	812	1507	609
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	13	4	0	4	2	14
Cap, veh/h	616	296	0	3333	2389	940
Arrive On Green	0.20	0.20	0.00	0.70	0.70	0.70
Sat Flow, veh/h	3081	1478	0	5075	3572	1343
Grp Volume(v), veh/h	467	237	0	812	1422	694
Grp Sat Flow(s),veh/h/ln	1540	1478	0	1587	1612	1530
Q Serve(g_s), s	22.9	24.4	0.0	9.9	37.9	39.8
Cycle Q Clear(g_c), s	22.9	24.4	0.0	9.9	37.9	39.8
Prop In Lane	1.00	1.00	0.00			0.88
Lane Grp Cap(c), veh/h	616	296	0	3333	2257	1071
V/C Ratio(X)	0.76	0.80	0.00	0.24	0.63	0.65
Avail Cap(c_a), veh/h	1386	665	0	3333	2257	1071
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.82	1.00	1.00
Uniform Delay (d), s/veh	60.4	61.0	0.0	8.7	12.9	13.2
Incr Delay (d2), s/veh	1.9	5.0	0.0	0.1	1.3	3.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	7.5	0.0	0.7	3.0	3.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	62.3	66.0	0.0	8.8	14.2	16.2
LnGrp LOS	E	E		A	B	B
Approach Vol, veh/h	704			812	2116	
Approach Delay, s/veh	63.5			8.8	14.9	
Approach LOS	E			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		119.5		40.5		119.5
Change Period (Y+Rc), s		7.5		8.5		7.5
Max Green Setting (Gmax), s		72.0		72.0		72.0
Max Q Clear Time (g_c+I1), s		11.9		26.4		41.8
Green Ext Time (p_c), s		20.6		5.5		29.0
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			23.0			
HCM 6th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

3: Winston Churchill Blvd & Argentic Rd

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	328	240	199	268	424	284	220	613	94	229	1003	346
Future Volume (veh/h)	328	240	199	268	424	284	220	613	94	229	1003	346
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.97		0.96	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	1841	1870	1885	1885	1870	1856	1885	1826	1870	1841	1870	1856
Adj Flow Rate, veh/h	331	242	201	271	428	287	222	619	0	231	1013	349
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	2	1	1	2	3	1	5	2	4	2	3
Cap, veh/h	319	1014	560	490	1003	551	269	1932		273	1994	759
Arrive On Green	0.09	0.29	0.29	0.10	0.28	0.28	0.08	0.39	0.00	0.16	0.78	0.78
Sat Flow, veh/h	3401	3554	1530	1795	3554	1506	3483	4985	1585	3401	5106	1565
Grp Volume(v), veh/h	331	242	201	271	428	287	222	619	0	231	1013	349
Grp Sat Flow(s),veh/h/ln1700	1777	1530	1795	1777	1506	1742	1662	1585	1700	1702	1565	
Q Serve(g_s), s	15.0	8.4	15.4	16.5	15.7	24.0	10.0	13.9	0.0	10.6	11.5	11.9
Cycle Q Clear(g_c), s	15.0	8.4	15.4	16.5	15.7	24.0	10.0	13.9	0.0	10.6	11.5	11.9
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	319	1014	560	490	1003	551	269	1932		273	1994	759
V/C Ratio(X)	1.04	0.24	0.36	0.55	0.43	0.52	0.82	0.32		0.85	0.51	0.46
Avail Cap(c_a), veh/h	319	1233	654	490	1222	644	327	1932		319	1994	759
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.67	0.67	0.67
Uniform Delay (d), s/veh	72.5	43.8	37.4	36.2	46.9	40.2	72.7	34.3	0.0	66.2	11.9	8.8
Incr Delay (d2), s/veh	60.6	0.1	0.4	1.4	0.3	0.8	13.3	0.4	0.0	11.8	0.6	1.3
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/ln7.8		2.7	4.0	5.3	5.1	6.2	4.0	3.8	0.0	3.8	2.2	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	133.1	44.0	37.8	37.6	47.2	40.9	86.1	34.7	0.0	78.0	12.6	10.1
LnGrp LOS	F	D	D	D	D	D	F	C		E	B	B
Approach Vol, veh/h		774			986			841			1593	
Approach Delay, s/veh		80.5			42.7			48.3			21.5	
Approach LOS		F			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.4	70.0	20.0	52.6	17.8	69.5	19.5	53.1				
Change Period (Y+Rc), s	5.0	7.5	5.0	7.5	5.0	7.5	3.0	7.5				
Max Green Setting (Gmax), s	15.0	50.0	15.0	55.0	15.0	50.0	16.5	55.5				
Max Q Clear Time (g_c+112, s)	13.9	13.9	17.0	26.0	12.6	15.9	18.5	17.4				
Green Ext Time (p_c), s	0.3	23.8	0.0	9.6	0.3	12.1	0.0	5.8				

Intersection Summary

HCM 6th Ctrl Delay, s/veh	42.7
HCM 6th LOS	D

Notes

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

HCM 6th Signalized Intersection Summary

4: Tenth Line W & Argentia Rd

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	250	96	451	383	5	61	0	281	2	2	2
Future Volume (veh/h)	1	250	96	451	383	5	61	0	281	2	2	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.99	0.99		0.99	0.99		0.99
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		No		No
Adj Sat Flow, veh/h/ln	418	1826	1870	1900	1856	1604	1900	1870	1900	1900	1900	1900
Adj Flow Rate, veh/h	1	269	103	485	412	5	66	0	302	2	2	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	100	5	2	0	3	20	0	2	0	0	0	0
Cap, veh/h	174	699	597	570	982	711	476	0	459	226	161	161
Arrive On Green	0.38	0.38	0.38	0.11	0.53	0.53	0.07	0.00	0.29	0.19	0.19	0.19
Sat Flow, veh/h	215	1826	1560	1810	1856	1344	1810	0	1572	1087	865	865
Grp Volume(v), veh/h	1	269	103	485	412	5	66	0	302	2	0	4
Grp Sat Flow(s), veh/h/ln	215	1826	1560	1810	1856	1344	1810	0	1572	1087	0	1731
Q Serve(g_s), s	0.2	8.4	3.4	8.5	10.5	0.1	2.1	0.0	13.2	0.1	0.0	0.1
Cycle Q Clear(g_c), s	0.2	8.4	3.4	8.5	10.5	0.1	2.1	0.0	13.2	5.0	0.0	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.50
Lane Grp Cap(c), veh/h	174	699	597	570	982	711	476	0	459	226	0	321
V/C Ratio(X)	0.01	0.38	0.17	0.85	0.42	0.01	0.14	0.00	0.66	0.01	0.00	0.01
Avail Cap(c_a), veh/h	174	699	597	570	982	711	549	0	892	482	0	729
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.0	17.5	16.0	18.2	11.2	8.7	21.2	0.0	24.3	30.2	0.0	26.1
Incr Delay (d2), s/veh	0.1	1.6	0.6	11.8	1.3	0.0	0.1	0.0	1.6	0.0	0.0	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	0.0	1.0	0.3	1.9	0.4	0.0	0.4	0.0	2.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.1	19.1	16.6	30.1	12.5	8.7	21.3	0.0	25.9	30.2	0.0	26.1
LnGrp LOS	B	B	B	C	B	A	C		C	C		C
Approach Vol, veh/h		373			902			368				6
Approach Delay, s/veh		18.4			21.9			25.1				27.4
Approach LOS		B			C			C				C
Timer - Assigned Phs	1	2		4		6	7	8				
Phs Duration (G+Y+Rc), s	1.5	37.5		29.4		49.0	8.3	21.0				
Change Period (Y+Rc), s	3.0	7.5		6.5		7.5	3.0	6.5				
Max Green Setting (Gmax), s	3.5	30.0		44.5		41.5	8.5	33.0				
Max Q Clear Time (g_c+110), s	10.4			15.2		12.5	4.1	7.0				
Green Ext Time (p_c), s	0.0	4.3		5.7		7.3	0.1	0.0				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				21.9								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

5: Ninth Line & Argentia Rd

03/05/2026



Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations										
Traffic Volume (veh/h)	250	198	0	611	126	73	453	0	0	0
Future Volume (veh/h)	250	198	0	611	126	73	453	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	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		
Work Zone On Approach	No			No			No			
Adj Sat Flow, veh/h/ln	1885	1885	0	1885	1856	1811	1870	0		
Adj Flow Rate, veh/h	260	206	0	636	131	76	472	0		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	1	1	0	1	3	6	2	0		
Cap, veh/h	517	460	0	1004	837	303	996	0		
Arrive On Green	0.29	0.29	0.00	0.53	0.53	0.53	0.53	0.00		
Sat Flow, veh/h	1795	1598	0	1885	1572	679	1870	0		
Grp Volume(v), veh/h	260	206	0	636	131	76	472	0		
Grp Sat Flow(s),veh/h/ln	1795	1598	0	1885	1572	679	1870	0		
Q Serve(g_s), s	8.4	7.3	0.0	16.5	3.0	6.2	11.0	0.0		
Cycle Q Clear(g_c), s	8.4	7.3	0.0	16.5	3.0	22.7	11.0	0.0		
Prop In Lane	1.00	1.00	0.00		1.00	1.00		0.00		
Lane Grp Cap(c), veh/h	517	460	0	1004	837	303	996	0		
V/C Ratio(X)	0.50	0.45	0.00	0.63	0.16	0.25	0.47	0.00		
Avail Cap(c_a), veh/h	620	552	0	1004	837	303	996	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	20.6	20.2	0.0	11.5	8.3	19.5	10.2	0.0		
Incr Delay (d2), s/veh	0.8	0.7	0.0	3.0	0.4	2.0	1.6	0.0		
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.9	0.7	0.0	0.8	0.1	0.4	0.4	0.0		
Unsig. Movement Delay, s/veh										
LnGrp Delay(d), s/veh	21.4	20.9	0.0	14.5	8.7	21.5	11.8	0.0		
LnGrp LOS	C	C		B	A	C	B			
Approach Vol, veh/h	466			767			548			
Approach Delay, s/veh	21.2			13.5			13.1			
Approach LOS	C			B			B			
Timer - Assigned Phs		2		4			6			
Phs Duration (G+Y+Rc), s		43.5		26.0			43.5			
Change Period (Y+Rc), s		6.5		6.0			6.5			
Max Green Setting (Gmax), s		37.0		24.0			37.0			
Max Q Clear Time (g_c+I1), s		24.7		10.4			18.5			
Green Ext Time (p_c), s		5.7		2.3			10.0			
Intersection Summary										
HCM 6th Ctrl Delay, s/veh				15.4						
HCM 6th LOS				B						

HCM 6th Signalized Intersection Summary
 6: Ninth Line & Derry Rd E/Derry Rd W

03/05/2026



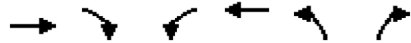
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗		↖	↖	↖	↖	↖	↖
Traffic Volume (veh/h)	257	626	130	164	885	52	80	434	144	43	325	257
Future Volume (veh/h)	257	626	130	164	885	52	80	434	144	43	325	257
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		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	1885	1885	1900	1885	1885	1870	1841	1885	1870	1900	1885	1870
Adj Flow Rate, veh/h	273	666	138	174	941	55	85	462	153	46	346	273
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	0	1	1	2	4	1	2	0	1	2
Cap, veh/h	389	1565	324	428	1728	101	184	577	485	111	449	377
Arrive On Green	0.09	0.53	0.53	0.06	0.50	0.50	0.05	0.31	0.31	0.24	0.24	0.24
Sat Flow, veh/h	1795	2954	611	1795	3439	201	1753	1885	1583	820	1885	1583
Grp Volume(v), veh/h	273	404	400	174	490	506	85	462	153	46	346	273
Grp Sat Flow(s),veh/h/ln	1795	1791	1774	1795	1791	1849	1753	1885	1583	820	1885	1583
Q Serve(g_s), s	11.3	21.9	21.9	7.4	30.0	30.0	5.7	36.0	11.9	8.7	27.4	25.4
Cycle Q Clear(g_c), s	11.3	21.9	21.9	7.4	30.0	30.0	5.7	36.0	11.9	33.9	27.4	25.4
Prop In Lane	1.00		0.34	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	389	949	940	428	900	929	184	577	485	111	449	377
V/C Ratio(X)	0.70	0.43	0.43	0.41	0.54	0.54	0.46	0.80	0.32	0.41	0.77	0.72
Avail Cap(c_a), veh/h	567	949	940	655	900	929	432	866	727	121	471	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.89	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.8	22.8	22.9	17.9	27.3	27.3	44.2	51.0	42.6	71.6	56.9	56.1
Incr Delay (d2), s/veh	2.1	1.2	1.3	0.6	2.4	2.3	1.8	3.2	0.4	2.4	7.3	6.1
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	2.2	5.3	5.3	1.6	7.9	8.2	1.9	12.5	3.4	1.5	10.5	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.8	24.1	24.1	18.6	29.6	29.6	46.0	54.3	43.0	74.0	64.2	62.2
LnGrp LOS	C	C	C	B	C	C	D	D	D	E	E	E
Approach Vol, veh/h		1077			1170			700			665	
Approach Delay, s/veh		23.8			28.0			50.8			64.1	
Approach LOS		C			C			D			E	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	33.3	91.3		55.5	17.6	86.9	10.9	44.6				
Change Period (Y+Rc), s	3.0	6.5		6.5	3.0	6.5	3.0	6.5				
Max Green Setting (Gmax), s	30.5	40.0		73.5	30.5	40.0	30.5	40.0				
Max Q Clear Time (g_c+1), s	19.4	23.9		38.0	13.3	32.0	7.7	35.9				
Green Ext Time (p_c), s	0.8	9.7		10.0	1.3	6.3	0.3	2.2				

Intersection Summary

HCM 6th Ctrl Delay, s/veh	37.8
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
 7: Hwy 407 NB Ramp Terminal & Derry Rd E

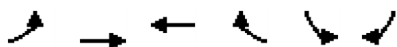
03/05/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	↑
Traffic Volume (veh/h)	891	70	0	1159	40	145
Future Volume (veh/h)	891	70	0	1159	40	145
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1786	1688	0	1786	1688	1772
Adj Flow Rate, veh/h	909	71	0	1183	41	148
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	8	0	1	8	2
Cap, veh/h	1488	116	0	1584	1039	501
Arrive On Green	0.47	0.47	0.00	0.47	0.33	0.33
Sat Flow, veh/h	3278	249	0	3572	3118	1502
Grp Volume(v), veh/h	484	496	0	1183	41	148
Grp Sat Flow(s),veh/h/ln	1697	1741	0	1697	1559	1502
Q Serve(g_s), s	12.8	12.8	0.0	17.1	0.5	4.4
Cycle Q Clear(g_c), s	12.8	12.8	0.0	17.1	0.5	4.4
Prop In Lane		0.14	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	792	813	0	1584	1039	501
V/C Ratio(X)	0.61	0.61	0.00	0.75	0.04	0.30
Avail Cap(c_a), veh/h	792	813	0	1584	1039	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.80	1.00	1.00
Uniform Delay (d), s/veh	11.9	11.9	0.0	13.1	13.5	14.8
Incr Delay (d2), s/veh	3.5	3.4	0.0	2.6	0.1	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.8	0.0	0.6	0.0	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	15.4	15.3	0.0	15.7	13.6	16.3
LnGrp LOS	B	B		B	B	B
Approach Vol, veh/h	980			1183	189	
Approach Delay, s/veh	15.4			15.7	15.7	
Approach LOS	B			B	B	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		26.0		34.0		34.0
Change Period (Y+Rc), s		6.0		6.0		6.0
Max Green Setting (Gmax), s		20.0		28.0		28.0
Max Q Clear Time (g_c+I1), s		6.4		14.8		19.1
Green Ext Time (p_c), s		0.8		9.7		7.8
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			15.6			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 8: Derry Rd E & Hwy 407 SB Ramp Terminal

03/05/2026



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	811	1038	147	166	235
Future Volume (veh/h)	0	811	1038	147	166	235
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1772	1786	1772	1772	1786
Adj Flow Rate, veh/h	0	828	1059	150	169	240
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	1	2	2	1
Cap, veh/h	0	1711	1517	215	1119	517
Arrive On Green	0.00	0.51	0.51	0.51	0.34	0.34
Sat Flow, veh/h	0	3544	3074	422	3274	1514
Grp Volume(v), veh/h	0	828	601	608	169	240
Grp Sat Flow(s),veh/h/ln	0	1683	1697	1710	1637	1514
Q Serve(g_s), s	0.0	9.6	16.2	16.3	2.2	7.4
Cycle Q Clear(g_c), s	0.0	9.6	16.2	16.3	2.2	7.4
Prop In Lane	0.00			0.25	1.00	1.00
Lane Grp Cap(c), veh/h	0	1711	862	869	1119	517
V/C Ratio(X)	0.00	0.48	0.70	0.70	0.15	0.46
Avail Cap(c_a), veh/h	0	1711	862	869	1119	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.6	11.2	11.2	13.7	15.5
Incr Delay (d2), s/veh	0.0	1.0	4.6	4.6	0.3	3.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	1.1	1.1	0.0	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.0	10.6	15.9	15.9	14.0	18.4
LnGrp LOS		B	B	B	B	B
Approach Vol, veh/h		828	1209		409	
Approach Delay, s/veh		10.6	15.9		16.6	
Approach LOS		B	B		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				35.0	25.0	35.0
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				30.5	20.5	30.5
Max Q Clear Time (g_c+I1), s				11.6	9.4	18.3
Green Ext Time (p_c), s				11.5	1.8	10.3
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			14.2			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary

Future Background 2032 AM

1: Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal

03/25/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶		↷	↶	↶	↷	↶	↶			↶	↷
Traffic Volume (veh/h)	0	0	0	225	4	470	2	1125	202	0	1472	386
Future Volume (veh/h)	0	0	0	225	4	470	2	1125	202	0	1472	386
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1772	0	1772	1674	1800	1505	1800	1716	1702	0	1674	1575
Adj Flow Rate, veh/h	0	0	0	240	0	495	2	1184	213	0	1549	406
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2	9	0	21	0	6	7	0	9	16
Cap, veh/h	0	0	0	741	0	592	154	1859	333	0	3075	899
Arrive On Green	0.00	0.00	0.00	0.23	0.00	0.23	0.67	0.67	0.67	0.00	0.67	0.67
Sat Flow, veh/h		0		3188	0	2546	217	2763	494	0	4720	1335
Grp Volume(v), veh/h		0.0		240	0	495	2	696	701	0	1549	406
Grp Sat Flow(s),veh/h/ln				1594	0	1273	217	1630	1627	0	1523	1335
Q Serve(g_s), s				10.0	0.0	29.6	0.7	39.0	39.6	0.0	26.8	22.9
Cycle Q Clear(g_c), s				10.0	0.0	29.6	27.6	39.0	39.6	0.0	26.8	22.9
Prop In Lane				1.00		1.00	1.00		0.30	0.00		1.00
Lane Grp Cap(c), veh/h				741	0	592	154	1097	1095	0	3075	899
V/C Ratio(X)				0.32	0.00	0.84	0.01	0.63	0.64	0.00	0.50	0.45
Avail Cap(c_a), veh/h				1096	0	875	154	1097	1095	0	3075	899
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				50.9	0.0	58.5	19.8	14.9	15.0	0.0	12.9	12.3
Incr Delay (d2), s/veh				0.3	0.0	4.7	0.2	2.8	2.9	0.0	0.6	1.6
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.0	0.0	7.4	0.0	4.8	4.9	0.0	2.7	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				51.2	0.0	63.1	19.9	17.7	17.9	0.0	13.5	13.9
LnGrp LOS				D		E	B	B	B		B	B
Approach Vol, veh/h					735			1399			1955	
Approach Delay, s/veh					59.2			17.8			13.6	
Approach LOS					E			B			B	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		115.2		44.8		115.2						
Change Period (Y+Rc), s		7.5		7.6		7.5						
Max Green Setting (Gmax), s		46.9		55.0		68.4						
Max Q Clear Time (g_c+I1), s		28.8		31.6		41.6						
Green Ext Time (p_c), s		16.9		5.4		22.5						
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				23.3								
HCM 6th LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary
 2: Winston Churchill Blvd & Hwy 401 EB Ramp Terminal

Future Background 2032 AM
 03/25/2026



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘↘↘	↘		↑↑↑	↑↑↑	
Traffic Volume (veh/h)	478	212	0	799	867	730
Future Volume (veh/h)	478	212	0	799	867	730
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1674	1758	0	1758	1702	1646
Adj Flow Rate, veh/h	503	223	0	841	913	768
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	9	3	0	3	7	11
Cap, veh/h	632	296	0	3367	2173	1012
Arrive On Green	0.20	0.20	0.00	0.70	0.70	0.70
Sat Flow, veh/h	3188	1490	0	5115	3250	1442
Grp Volume(v), veh/h	503	223	0	841	913	768
Grp Sat Flow(s),veh/h/ln	1594	1490	0	1600	1549	1442
Q Serve(g_s), s	24.0	22.6	0.0	10.1	20.0	54.4
Cycle Q Clear(g_c), s	24.0	22.6	0.0	10.1	20.0	54.4
Prop In Lane	1.00	1.00	0.00			1.00
Lane Grp Cap(c), veh/h	632	296	0	3367	2173	1012
V/C Ratio(X)	0.80	0.75	0.00	0.25	0.42	0.76
Avail Cap(c_a), veh/h	1435	670	0	3367	2173	1012
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.85	1.00	1.00
Uniform Delay (d), s/veh	61.0	60.5	0.0	8.6	10.1	15.2
Incr Delay (d2), s/veh	2.3	3.9	0.0	0.2	0.6	5.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	6.9	0.0	0.7	1.5	4.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	63.4	64.4	0.0	8.8	10.7	20.6
LnGrp LOS	E	E		A	B	C
Approach Vol, veh/h	726			841	1681	
Approach Delay, s/veh	63.7			8.8	15.2	
Approach LOS	E			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		119.8		40.2		119.8
Change Period (Y+Rc), s		7.5		8.5		7.5
Max Green Setting (Gmax), s		72.0		72.0		72.0
Max Q Clear Time (g_c+I1), s		56.4		26.0		12.1
Green Ext Time (p_c), s		14.7		5.7		21.5
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			24.4			
HCM 6th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 3: Winston Churchill Blvd & Argentia Rd

Future Background 2032 AM
 03/25/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	324	210	57	74	89	135	76	1153	95	272	531	156
Future Volume (veh/h)	324	210	57	74	89	135	76	1153	95	272	531	156
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.98		0.97	1.00		1.00	1.00		0.99
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	1826	1885	1870	1811	1870	1781	1870	1870	1841	1856	1796	1752
Adj Flow Rate, veh/h	341	221	60	78	94	142	80	1214	0	286	559	164
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	1	2	6	2	8	2	2	4	3	7	10
Cap, veh/h	393	1107	546	359	802	477	147	2066		332	2251	851
Arrive On Green	0.12	0.31	0.31	0.05	0.23	0.23	0.04	0.40	0.00	0.19	0.92	0.92
Sat Flow, veh/h	3374	3582	1550	1725	3554	1464	3456	5106	1560	3428	4904	1476
Grp Volume(v), veh/h	341	221	60	78	94	142	80	1214	0	286	559	164
Grp Sat Flow(s),veh/h/ln	1687	1791	1550	1725	1777	1464	1728	1702	1560	1714	1635	1476
Q Serve(g_s), s	15.9	7.3	4.2	5.5	3.4	11.6	3.6	29.7	0.0	12.9	1.9	1.5
Cycle Q Clear(g_c), s	15.9	7.3	4.2	5.5	3.4	11.6	3.6	29.7	0.0	12.9	1.9	1.5
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	393	1107	546	359	802	477	147	2066		332	2251	851
V/C Ratio(X)	0.87	0.20	0.11	0.22	0.12	0.30	0.54	0.59		0.86	0.25	0.19
Avail Cap(c_a), veh/h	464	1397	672	373	1044	576	173	2066		407	2251	851
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.80	0.80	0.80
Uniform Delay (d), s/veh	69.5	40.7	35.0	44.5	49.3	40.7	75.1	37.2	0.0	63.4	3.6	2.2
Incr Delay (d2), s/veh	14.1	0.1	0.1	0.3	0.1	0.3	3.1	1.2	0.0	12.0	0.2	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	6.1	2.3	1.1	1.8	1.1	3.0	1.3	8.3	0.0	4.5	0.4	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	83.6	40.8	35.1	44.8	49.3	41.0	78.2	38.4	0.0	75.4	3.8	2.6
LnGrp LOS	F	D	D	D	D	D	E	D		E	A	A
Approach Vol, veh/h		622			314			1294			1009	
Approach Delay, s/veh		63.7			44.4			40.9			23.9	
Approach LOS		E			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.8	81.0	23.7	43.6	20.5	72.2	10.3	56.9				
Change Period (Y+Rc), s	5.0	7.5	5.0	7.5	5.0	7.5	3.0	7.5				
Max Green Setting (Gmax), s	58.0	58.0	22.0	47.0	19.0	47.0	8.6	62.4				
Max Q Clear Time (g_c+1/6), s	15.6	3.9	17.9	13.6	14.9	31.7	7.5	9.3				
Green Ext Time (p_c), s	0.1	13.9	0.8	2.4	0.6	12.5	0.0	4.6				

Intersection Summary

HCM 6th Ctrl Delay, s/veh	40.3
HCM 6th LOS	D

Notes

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

HCM 6th Signalized Intersection Summary
4: Tenth Line W & Argentia Rd

Future Background 2032 AM
03/25/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	313	36	69	146	16	73	7	214	7	5	4
Future Volume (veh/h)	6	313	36	69	146	16	73	7	214	7	5	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	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		No		No
Adj Sat Flow, veh/h/ln	1900	1841	1900	1826	1826	1900	1900	1900	1885	1159	1900	1900
Adj Flow Rate, veh/h	6	326	38	72	152	17	76	7	223	7	5	4
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, %	0	4	0	5	5	0	0	0	1	50	0	0
Cap, veh/h	638	811	706	540	1010	887	432	13	407	194	142	114
Arrive On Green	0.44	0.44	0.44	0.07	0.55	0.55	0.07	0.26	0.26	0.15	0.15	0.15
Sat Flow, veh/h	1230	1841	1601	1739	1826	1603	1810	49	1565	711	975	780
Grp Volume(v), veh/h	6	326	38	72	152	17	76	0	230	7	0	9
Grp Sat Flow(s),veh/h/ln	1230	1841	1601	1739	1826	1603	1810	0	1614	711	0	1756
Q Serve(g_s), s	0.2	9.0	1.0	1.5	3.0	0.4	2.5	0.0	9.2	0.6	0.0	0.3
Cycle Q Clear(g_c), s	0.2	9.0	1.0	1.5	3.0	0.4	2.5	0.0	9.2	1.3	0.0	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.44
Lane Grp Cap(c), veh/h	638	811	706	540	1010	887	432	0	420	194	0	256
V/C Ratio(X)	0.01	0.40	0.05	0.13	0.15	0.02	0.18	0.00	0.55	0.04	0.00	0.04
Avail Cap(c_a), veh/h	638	811	706	611	1010	887	503	0	957	402	0	772
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.8	14.3	12.0	9.2	8.2	7.6	22.2	0.0	23.9	28.2	0.0	27.5
Incr Delay (d2), s/veh	0.0	1.5	0.1	0.1	0.3	0.0	0.2	0.0	1.1	0.1	0.0	0.1
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	0.5	0.0	0.0	0.1	0.0	0.4	0.0	1.4	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	11.8	15.7	12.2	9.3	8.5	7.6	22.4	0.0	25.1	28.3	0.0	27.5
LnGrp LOS	B	B	B	A	A	A	C		C	C		C
Approach Vol, veh/h		370			241			306				16
Approach Delay, s/veh		15.3			8.7			24.4				27.9
Approach LOS		B			A			C				C
Timer - Assigned Phs	1	2		4		6	7	8				
Phs Duration (G+Y+Rc), s	8.4	40.6		26.0		49.0	8.6	17.5				
Change Period (Y+Rc), s	3.0	7.5		6.5		7.5	3.0	6.5				
Max Green Setting (Gmax), s	30.5	30.0		44.5		41.5	8.5	33.0				
Max Q Clear Time (g_c+I), s	13.5	11.0		11.2		5.0	4.5	3.3				
Green Ext Time (p_c), s	0.1	4.7		4.3		2.5	0.1	0.1				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				16.8								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
5: Ninth Line & Argentia Rd

Future Background 2032 AM
03/25/2026



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	46	29	324	206	93	587
Future Volume (veh/h)	46	29	324	206	93	587
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1796	1796	1870	1870	1870	1856
Adj Flow Rate, veh/h	49	31	348	222	100	631
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	7	7	2	2	2	3
Cap, veh/h	113	101	1346	1141	692	1336
Arrive On Green	0.07	0.07	0.72	0.72	0.72	0.72
Sat Flow, veh/h	1711	1522	1870	1585	842	1856
Grp Volume(v), veh/h	49	31	348	222	100	631
Grp Sat Flow(s),veh/h/ln	1711	1522	1870	1585	842	1856
Q Serve(g_s), s	1.4	1.0	3.3	2.3	2.4	7.4
Cycle Q Clear(g_c), s	1.4	1.0	3.3	2.3	5.7	7.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	113	101	1346	1141	692	1336
V/C Ratio(X)	0.43	0.31	0.26	0.19	0.14	0.47
Avail Cap(c_a), veh/h	599	533	1346	1141	692	1336
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	22.9	2.5	2.3	3.5	3.1
Incr Delay (d2), s/veh	2.6	1.7	0.5	0.4	0.4	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.1	0.2	0.1	0.1	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	25.7	24.6	2.9	2.7	3.9	4.3
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	80		570			731
Approach Delay, s/veh	25.2		2.9			4.2
Approach LOS	C		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		43.5			43.5	7.9
Change Period (Y+Rc), s		6.5			6.5	4.5
Max Green Setting (Gmax), s		37.0			37.0	18.0
Max Q Clear Time (g_c+I1), s		9.4			5.3	3.4
Green Ext Time (p_c), s		12.9			7.6	0.3
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			4.9			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 6: Ninth Line & Derry Rd E/Derry Rd W

Future Background 2032 AM
 03/25/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	714	38	84	391	18	105	254	127	24	335	302
Future Volume (veh/h)	171	714	38	84	391	18	105	254	127	24	335	302
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1870	1811	1811	1885	1900	1841	1841	1856	1900	1856	1841
Adj Flow Rate, veh/h	176	736	39	87	403	19	108	262	131	25	345	311
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, %	3	2	6	6	1	0	4	4	3	0	3	4
Cap, veh/h	581	1819	96	464	1782	84	207	603	515	262	465	391
Arrive On Green	0.12	1.00	1.00	0.04	0.51	0.51	0.06	0.33	0.33	0.25	0.25	0.25
Sat Flow, veh/h	1767	3433	182	1725	3483	164	1753	1841	1572	1007	1856	1560
Grp Volume(v), veh/h	176	381	394	87	207	215	108	262	131	25	345	311
Grp Sat Flow(s),veh/h/ln	1767	1777	1838	1725	1791	1856	1753	1841	1572	1007	1856	1560
Q Serve(g_s), s	7.7	0.0	0.0	3.8	10.2	10.3	7.1	17.9	9.8	3.2	27.4	29.9
Cycle Q Clear(g_c), s	7.7	0.0	0.0	3.8	10.2	10.3	7.1	17.9	9.8	8.8	27.4	29.9
Prop In Lane	1.00		0.10	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	581	941	974	464	916	950	207	603	515	262	465	391
V/C Ratio(X)	0.30	0.40	0.40	0.19	0.23	0.23	0.52	0.43	0.25	0.10	0.74	0.79
Avail Cap(c_a), veh/h	584	941	974	498	916	950	270	909	776	390	702	590
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)	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.9	0.0	0.0	16.7	21.6	21.6	42.4	42.2	39.5	50.5	55.2	56.1
Incr Delay (d2), s/veh	0.3	1.2	1.1	0.2	0.6	0.6	2.0	0.5	0.3	0.2	2.3	4.4
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	1.3	0.3	0.3	0.8	2.6	2.7	2.3	5.8	2.7	0.6	9.6	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.2	1.2	1.1	16.9	22.1	22.1	44.5	42.7	39.7	50.6	57.5	60.5
LnGrp LOS	B	A	A	B	C	C	D	D	D	D	E	E
Approach Vol, veh/h		951			509			501			681	
Approach Delay, s/veh		3.8			21.2			42.3			58.6	
Approach LOS		A			C			D			E	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	91.3		58.9	12.8	88.4	12.2	46.6				
Change Period (Y+Rc), s	3.0	6.5		* 6.5	3.0	6.5	3.0	6.5				
Max Green Setting (Gmax), s	10.0	55.5		* 79	10.0	55.5	15.0	60.5				
Max Q Clear Time (g_c+1/3), s	15.0	2.0		19.9	9.7	12.3	9.1	31.9				
Green Ext Time (p_c), s	0.1	18.1		5.8	0.0	7.9	0.2	8.3				

Intersection Summary

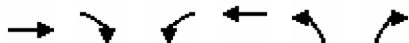
HCM 6th Ctrl Delay, s/veh	28.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
7: Hwy 407 NB Ramp Terminal & Derry Rd E

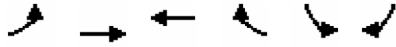
Future Background 2032 AM
03/25/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	↑
Traffic Volume (veh/h)	831	200	1	668	9	109
Future Volume (veh/h)	831	200	1	668	9	109
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1758	1477	1758
Adj Flow Rate, veh/h	857	206	1	689	9	112
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	3	23	3
Cap, veh/h	1481	356	45	1802	870	475
Arrive On Green	0.55	0.55	0.55	0.55	0.32	0.32
Sat Flow, veh/h	2781	647	0	3356	2729	1490
Grp Volume(v), veh/h	536	527	370	320	9	112
Grp Sat Flow(s),veh/h/ln	1683	1655	1757	1520	1365	1490
Q Serve(g_s), s	16.8	16.8	0.0	9.6	0.2	4.4
Cycle Q Clear(g_c), s	16.8	16.8	9.6	9.6	0.2	4.4
Prop In Lane		0.39	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	926	911	1011	836	870	475
V/C Ratio(X)	0.58	0.58	0.37	0.38	0.01	0.24
Avail Cap(c_a), veh/h	926	911	1011	836	870	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.94	0.94	1.00	1.00
Uniform Delay (d), s/veh	11.9	11.9	10.3	10.3	18.6	20.1
Incr Delay (d2), s/veh	2.6	2.7	1.0	1.3	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.7	0.3	0.3	0.0	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	14.5	14.6	11.2	11.5	18.6	21.2
LnGrp LOS	B	B	B	B	B	C
Approach Vol, veh/h	1063			690	121	
Approach Delay, s/veh	14.5			11.4	21.0	
Approach LOS	B			B	C	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		30.0		50.0		50.0
Change Period (Y+Rc), s		4.5		6.0		6.0
Max Green Setting (Gmax), s		25.5		44.0		44.0
Max Q Clear Time (g_c+I1), s		6.4		18.8		11.6
Green Ext Time (p_c), s		0.6		17.3		12.8
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			13.8			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 8: Derry Rd E & Hwy 407 SB Ramp Terminal

Future Background 2032 AM
 03/25/2026



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	1011	528	145	26	52
Future Volume (veh/h)	0	1011	528	145	26	52
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1772	1758	1758	1688	1575
Adj Flow Rate, veh/h	0	1064	556	153	27	55
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	3	3	8	16
Cap, veh/h	0	2041	1570	431	877	375
Arrive On Green	0.00	0.61	0.61	0.61	0.28	0.28
Sat Flow, veh/h	0	3544	2678	710	3118	1335
Grp Volume(v), veh/h	0	1064	358	351	27	55
Grp Sat Flow(s),veh/h/ln	0	1683	1670	1630	1559	1335
Q Serve(g_s), s	0.0	14.6	8.6	8.6	0.5	2.5
Cycle Q Clear(g_c), s	0.0	14.6	8.6	8.6	0.5	2.5
Prop In Lane	0.00			0.44	1.00	1.00
Lane Grp Cap(c), veh/h	0	2041	1012	988	877	375
V/C Ratio(X)	0.00	0.52	0.35	0.36	0.03	0.15
Avail Cap(c_a), veh/h	0	2041	1012	988	877	375
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.1	7.9	7.9	20.8	21.6
Incr Delay (d2), s/veh	0.0	1.0	1.0	1.0	0.1	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.3	0.3	0.1	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.0	10.0	8.9	8.9	20.9	22.4
LnGrp LOS		B	A	A	C	C
Approach Vol, veh/h		1064	709		82	
Approach Delay, s/veh		10.0	8.9		21.9	
Approach LOS		B	A		C	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				53.0	27.0	53.0
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				48.5	22.5	48.5
Max Q Clear Time (g_c+I1), s				16.6	4.5	10.6
Green Ext Time (p_c), s				20.9	0.3	14.4
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			10.1			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary

Future Background 2032 PM

1: Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal

03/27/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶		↷	↶	↷	↷	↶	↷			↷	↷
Traffic Volume (veh/h)	7	0	18	803	12	755	5	1085	221	0	1395	434
Future Volume (veh/h)	7	0	18	803	12	755	5	1085	221	0	1395	434
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1688	0	1800	1800	1786	1800	1786	1800	1702	0	1702	1702
Adj Flow Rate, veh/h	7	0	19	845	0	786	5	1130	230	0	1453	452
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, %	8	0	0	0	1	0	1	0	7	0	7	7
Cap, veh/h	0	0	0	1025	0	912	194	1719	348	0	2818	875
Arrive On Green	0.00	0.00	0.00	0.30	0.00	0.30	0.61	0.61	0.61	0.00	0.61	0.61
Sat Flow, veh/h		0		3429	0	3051	350	2833	574	0	4799	1442
Grp Volume(v), veh/h		0.0		845	0	786	5	680	680	0	1453	452
Grp Sat Flow(s),veh/h/ln				1714	0	1525	350	1710	1697	0	1549	1442
Q Serve(g_s), s				36.7	0.0	38.9	1.3	41.5	42.1	0.0	28.6	28.7
Cycle Q Clear(g_c), s				36.7	0.0	38.9	30.0	41.5	42.1	0.0	28.6	28.7
Prop In Lane				1.00		1.00	1.00		0.34	0.00		1.00
Lane Grp Cap(c), veh/h				1025	0	912	194	1037	1029	0	2818	875
V/C Ratio(X)				0.82	0.00	0.86	0.03	0.66	0.66	0.00	0.52	0.52
Avail Cap(c_a), veh/h				1089	0	969	194	1037	1029	0	2818	875
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				52.2	0.0	53.0	26.6	20.5	20.7	0.0	18.0	18.0
Incr Delay (d2), s/veh				5.0	0.0	7.7	0.2	3.2	3.3	0.0	0.7	2.2
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				11.9	0.0	11.5	0.1	7.9	8.0	0.0	4.5	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				57.2	0.0	60.6	26.8	23.8	24.0	0.0	18.7	20.2
LnGrp LOS				E		E	C	C	C		B	C
Approach Vol, veh/h					1631			1365			1905	
Approach Delay, s/veh					58.9			23.9			19.1	
Approach LOS					E			C			B	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		104.6		55.4		104.6						
Change Period (Y+Rc), s		7.5		7.6		7.5						
Max Green Setting (Gmax), s		48.7		50.8		48.7						
Max Q Clear Time (g_c+I1), s		30.7		40.9		44.1						
Green Ext Time (p_c), s		16.5		6.9		4.2						
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				33.7								
HCM 6th LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary
 2: Winston Churchill Blvd & Hwy 401 EB Ramp Terminal

Future Background 2032 PM
 03/27/2026



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	340	329	0	920	1703	572
Future Volume (veh/h)	340	329	0	920	1703	572
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1603	1744	0	1744	1772	1772
Adj Flow Rate, veh/h	467	237	0	979	1812	609
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	14	4	0	4	2	2
Cap, veh/h	597	289	0	3285	2502	802
Arrive On Green	0.20	0.20	0.00	0.69	0.69	0.69
Sat Flow, veh/h	3054	1478	0	5075	3784	1163
Grp Volume(v), veh/h	467	237	0	979	1603	818
Grp Sat Flow(s),veh/h/ln	1527	1478	0	1587	1612	1563
Q Serve(g_s), s	20.3	21.5	0.0	11.2	42.9	47.7
Cycle Q Clear(g_c), s	20.3	21.5	0.0	11.2	42.9	47.7
Prop In Lane	1.00	1.00	0.00			0.74
Lane Grp Cap(c), veh/h	597	289	0	3285	2226	1078
V/C Ratio(X)	0.78	0.82	0.00	0.30	0.72	0.76
Avail Cap(c_a), veh/h	796	385	0	3285	2226	1078
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.87	1.00	1.00
Uniform Delay (d), s/veh	53.5	53.9	0.0	8.5	13.4	14.1
Incr Delay (d2), s/veh	3.7	10.0	0.0	0.2	2.0	5.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	6.6	0.0	0.4	1.8	2.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	57.1	64.0	0.0	8.7	15.4	19.1
LnGrp LOS	E	E		A	B	B
Approach Vol, veh/h	704			979	2421	
Approach Delay, s/veh	59.4			8.7	16.7	
Approach LOS	E			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		104.1		35.9		104.1
Change Period (Y+Rc), s		7.5		8.5		7.5
Max Green Setting (Gmax), s		87.5		36.5		87.5
Max Q Clear Time (g_c+I1), s		49.7		23.5		13.2
Green Ext Time (p_c), s		37.0		3.9		28.6
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			22.1			
HCM 6th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 3: Winston Churchill Blvd & Argentia Rd

Future Background 2032 PM
 03/27/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↖	↑↑	↗	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗
Traffic Volume (veh/h)	332	287	199	268	506	284	220	736	94	229	1204	348
Future Volume (veh/h)	332	287	199	268	506	284	220	736	94	229	1204	348
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.97		0.96	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	1841	1870	1885	1885	1870	1856	1885	1826	1870	1841	1870
Adj Flow Rate, veh/h	335	290	201	271	511	287	222	743	0	231	1216	352
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	4	2	1	1	2	3	1	5	2	4	2
Cap, veh/h	392	1067	588	490	1010	557	268	1885		281	1856	764
Arrive On Green	0.11	0.30	0.30	0.10	0.28	0.28	0.08	0.37	0.00	0.08	0.37	0.37
Sat Flow, veh/h	3428	3497	1523	1795	3582	1518	3428	5147	1547	3456	5025	1577
Grp Volume(v), veh/h	335	290	201	271	511	287	222	743	0	231	1216	352
Grp Sat Flow(s),veh/h/ln	1714	1749	1523	1795	1791	1518	1714	1716	1547	1728	1675	1577
Q Serve(g_s), s	15.3	10.1	15.0	16.6	19.1	23.8	10.2	17.1	0.0	10.5	32.2	23.7
Cycle Q Clear(g_c), s	15.3	10.1	15.0	16.6	19.1	23.8	10.2	17.1	0.0	10.5	32.2	23.7
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	392	1067	588	490	1010	557	268	1885		281	1856	764
V/C Ratio(X)	0.85	0.27	0.34	0.55	0.51	0.52	0.83	0.39		0.82	0.66	0.46
Avail Cap(c_a), veh/h	493	1211	651	490	1052	575	321	1885		367	1856	764
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.58	0.58	0.58
Uniform Delay (d), s/veh	69.5	42.1	35.1	36.0	48.1	40.0	72.7	37.6	0.0	72.3	42.0	27.5
Incr Delay (d2), s/veh	11.4	0.1	0.3	1.4	0.4	0.7	14.0	0.6	0.0	6.6	1.1	1.2
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	5.8	3.1	3.8	5.3	6.2	6.1	4.0	5.0	0.0	3.9	9.1	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	81.0	42.3	35.4	37.4	48.5	40.7	86.7	38.2	0.0	79.0	43.0	28.6
LnGrp LOS	F	D	D	D	D	D	F	D		E	D	C
Approach Vol, veh/h		826			1069			965			1799	
Approach Delay, s/veh		56.3			43.6			49.3			44.8	
Approach LOS		E			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.5	66.6	23.3	52.6	18.0	66.1	19.6	56.3				
Change Period (Y+Rc), s	5.0	7.5	5.0	7.5	5.0	7.5	3.0	7.5				
Max Green Setting (Gmax), s	15.0	50.0	23.0	47.0	17.0	48.0	16.6	55.4				
Max Q Clear Time (g_c+1/2), s	11.2	34.2	17.3	25.8	12.5	19.1	18.6	17.0				
Green Ext Time (p_c), s	0.3	13.6	1.0	9.6	0.5	13.4	0.0	6.8				

Intersection Summary

HCM 6th Ctrl Delay, s/veh	47.5
HCM 6th LOS	D

Notes

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

HCM 6th Signalized Intersection Summary
 4: Tenth Line W & Argentia Rd

Future Background 2032 PM
 03/27/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	298	96	451	457	8	61	2	281	7	7	7
Future Volume (veh/h)	2	298	96	451	457	8	61	2	281	7	7	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.99	0.99		0.99	0.99		0.99
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	1900	1856	1826	1870	1900	1856	1841	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2	320	103	485	491	9	66	2	302	8	8	8
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	3	5	2	0	3	4	0	0	0	0	0
Cap, veh/h	424	711	584	530	1007	824	452	3	462	227	160	160
Arrive On Green	0.38	0.38	0.38	0.11	0.53	0.53	0.07	0.29	0.29	0.18	0.18	0.18
Sat Flow, veh/h	905	1856	1523	1781	1900	1555	1753	11	1588	1085	865	865
Grp Volume(v), veh/h	2	320	103	485	491	9	66	0	304	8	0	16
Grp Sat Flow(s),veh/h/ln	905	1856	1523	1781	1900	1555	1753	0	1599	1085	0	1731
Q Serve(g_s), s	0.1	10.1	3.5	8.5	12.8	0.2	2.2	0.0	13.0	0.5	0.0	0.6
Cycle Q Clear(g_c), s	1.4	10.1	3.5	8.5	12.8	0.2	2.2	0.0	13.0	5.2	0.0	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.50
Lane Grp Cap(c), veh/h	424	711	584	530	1007	824	452	0	465	227	0	319
V/C Ratio(X)	0.00	0.45	0.18	0.92	0.49	0.01	0.15	0.00	0.65	0.04	0.00	0.05
Avail Cap(c_a), veh/h	424	711	584	530	1007	824	523	0	909	484	0	730
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.7	18.0	16.0	19.7	11.6	8.7	21.2	0.0	24.3	30.2	0.0	26.3
Incr Delay (d2), s/veh	0.0	2.1	0.7	20.7	1.7	0.0	0.1	0.0	1.6	0.1	0.0	0.1
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	1.2	0.3	3.1	0.5	0.0	0.4	0.0	2.0	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.8	20.0	16.6	40.4	13.3	8.7	21.4	0.0	25.9	30.3	0.0	26.3
LnGrp LOS	B	C	B	D	B	A	C		C	C		C
Approach Vol, veh/h		425			985			370				24
Approach Delay, s/veh		19.2			26.6			25.1				27.7
Approach LOS		B			C			C				C
Timer - Assigned Phs	1	2		4		6	7	8				
Phs Duration (G+Y+Rc), s	1.5	37.5		29.3		49.0	8.3	20.9				
Change Period (Y+Rc), s	3.0	7.5		6.5		7.5	3.0	6.5				
Max Green Setting (Gmax), s	3.5	30.0		44.5		41.5	8.5	33.0				
Max Q Clear Time (g_c+110), s	11.0	12.1		15.0		14.8	4.2	7.2				
Green Ext Time (p_c), s	0.0	4.9		5.8		8.7	0.1	0.1				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				24.6								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
5: Ninth Line & Argentia Rd

Future Background 2032 PM
03/27/2026



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	254	199	734	127	73	545
Future Volume (veh/h)	254	199	734	127	73	545
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1885	1885	1885	1856	1811
Adj Flow Rate, veh/h	265	207	765	132	76	568
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	1	1	1	3	6
Cap, veh/h	357	320	1162	985	338	1116
Arrive On Green	0.20	0.20	0.62	0.62	0.62	0.62
Sat Flow, veh/h	1781	1598	1885	1598	616	1811
Grp Volume(v), veh/h	265	207	765	132	76	568
Grp Sat Flow(s),veh/h/ln	1781	1598	1885	1598	616	1811
Q Serve(g_s), s	8.4	7.1	15.7	2.1	5.5	10.5
Cycle Q Clear(g_c), s	8.4	7.1	15.7	2.1	21.2	10.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	357	320	1162	985	338	1116
V/C Ratio(X)	0.74	0.65	0.66	0.13	0.22	0.51
Avail Cap(c_a), veh/h	534	479	1162	985	338	1116
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.5	22.0	7.4	4.8	14.3	6.4
Incr Delay (d2), s/veh	3.1	2.2	2.9	0.3	1.5	1.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.7	0.9	0.1	0.1	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	25.6	24.2	10.4	5.1	15.8	8.1
LnGrp LOS	C	C	B	A	B	A
Approach Vol, veh/h	472		897			644
Approach Delay, s/veh	25.0		9.6			9.0
Approach LOS	C		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		43.5			43.5	16.5
Change Period (Y+Rc), s		6.5			6.5	4.5
Max Green Setting (Gmax), s		37.0			37.0	18.0
Max Q Clear Time (g_c+I1), s		23.2			17.7	10.4
Green Ext Time (p_c), s		7.5			12.3	1.6
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			13.0			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
6: Ninth Line & Derry Rd E/Derry Rd W

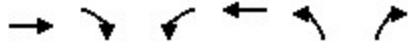
Future Background 2032 PM
03/27/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	257	650	130	164	917	53	80	521	144	46	392	257
Future Volume (veh/h)	257	650	130	164	917	53	80	521	144	46	392	257
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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		No		No
Adj Sat Flow, veh/h/ln	1870	1885	1885	1900	1885	1885	1811	1841	1885	1870	1900	1885
Adj Flow Rate, veh/h	273	691	138	174	976	56	85	554	153	49	417	273
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	1	1	0	1	1	6	4	1	2	0	1
Cap, veh/h	345	1405	280	381	1517	87	194	659	572	106	555	466
Arrive On Green	0.10	0.47	0.47	0.07	0.44	0.44	0.05	0.36	0.36	0.29	0.29	0.29
Sat Flow, veh/h	1781	2975	594	1810	3443	198	1725	1841	1596	741	1900	1596
Grp Volume(v), veh/h	273	416	413	174	508	524	85	554	153	49	417	273
Grp Sat Flow(s),veh/h/ln	1781	1791	1778	1810	1791	1849	1725	1841	1596	741	1900	1596
Q Serve(g_s), s	12.9	25.5	25.6	8.3	35.4	35.4	5.4	44.2	10.9	10.4	31.8	23.4
Cycle Q Clear(g_c), s	12.9	25.5	25.6	8.3	35.4	35.4	5.4	44.2	10.9	44.1	31.8	23.4
Prop In Lane	1.00		0.33	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	345	846	839	381	789	815	194	659	572	106	555	466
V/C Ratio(X)	0.79	0.49	0.49	0.46	0.64	0.64	0.44	0.84	0.27	0.46	0.75	0.59
Avail Cap(c_a), veh/h	504	846	839	600	789	815	442	846	733	106	555	466
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	29.0	29.0	23.0	34.9	34.9	39.4	47.1	36.5	72.2	51.3	48.3
Incr Delay (d2), s/veh	4.6	1.8	1.8	0.9	4.0	3.9	1.5	6.1	0.2	3.1	5.7	1.9
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	8.2	7.0	7.0	2.1	10.5	10.8	1.6	14.8	3.0	1.6	11.6	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.1	30.8	30.8	23.9	38.9	38.8	40.9	53.2	36.7	75.4	57.0	50.2
LnGrp LOS	C	C	C	C	D	D	D	D	D	E	E	D
Approach Vol, veh/h		1102			1206			792			739	
Approach Delay, s/veh		31.2			36.7			48.7			55.7	
Approach LOS		C			D			D			E	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.1	82.1		63.8	19.2	77.0	10.6	53.3				
Change Period (Y+Rc), s	3.0	6.5		6.5	3.0	6.5	3.0	6.5				
Max Green Setting (Gmax), s	30.5	40.0		73.5	30.5	40.0	30.5	40.0				
Max Q Clear Time (g_c+10), s	110.3	27.6		46.2	14.9	37.4	7.4	46.1				
Green Ext Time (p_c), s	0.8	8.2		11.1	1.3	2.2	0.4	0.0				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh												41.3
HCM 6th LOS												D

HCM 6th Signalized Intersection Summary
 7: Hwy 407 NB Ramp Terminal & Derry Rd E

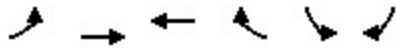
Future Background 2032 PM
 03/27/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	↑
Traffic Volume (veh/h)	924	70	0	1201	40	145
Future Volume (veh/h)	924	70	0	1201	40	145
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1786	1786	0	1786	1702	1772
Adj Flow Rate, veh/h	943	71	0	1226	41	148
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	1	0	1	7	2
Cap, veh/h	1493	112	0	1584	1048	501
Arrive On Green	0.47	0.47	0.00	0.47	0.33	0.33
Sat Flow, veh/h	3288	241	0	3572	3144	1502
Grp Volume(v), veh/h	500	514	0	1226	41	148
Grp Sat Flow(s),veh/h/ln	1697	1743	0	1697	1572	1502
Q Serve(g_s), s	13.4	13.4	0.0	18.1	0.5	4.4
Cycle Q Clear(g_c), s	13.4	13.4	0.0	18.1	0.5	4.4
Prop In Lane		0.14	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	792	813	0	1584	1048	501
V/C Ratio(X)	0.63	0.63	0.00	0.77	0.04	0.30
Avail Cap(c_a), veh/h	792	813	0	1584	1048	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.74	1.00	1.00
Uniform Delay (d), s/veh	12.1	12.1	0.0	13.4	13.5	14.8
Incr Delay (d2), s/veh	3.8	3.7	0.0	2.8	0.1	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.8	0.0	0.6	0.0	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	15.9	15.8	0.0	16.2	13.6	16.3
LnGrp LOS	B	B		B	B	B
Approach Vol, veh/h	1014			1226	189	
Approach Delay, s/veh	15.9			16.2	15.7	
Approach LOS	B			B	B	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		26.0		34.0		34.0
Change Period (Y+Rc), s		6.0		6.0		6.0
Max Green Setting (Gmax), s		20.0		28.0		28.0
Max Q Clear Time (g_c+I1), s		6.4		15.4		20.1
Green Ext Time (p_c), s		0.8		9.5		7.1
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			16.0			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 8: Derry Rd E & Hwy 407 SB Ramp Terminal

Future Background 2032 PM
 03/27/2026



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	841	1076	147	166	235
Future Volume (veh/h)	0	841	1076	147	166	235
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1772	1786	1786	1772	1786
Adj Flow Rate, veh/h	0	858	1098	150	169	240
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	1	1	2	1
Cap, veh/h	0	1711	1525	208	1119	517
Arrive On Green	0.00	0.51	0.51	0.51	0.34	0.34
Sat Flow, veh/h	0	3544	3089	409	3274	1514
Grp Volume(v), veh/h	0	858	620	628	169	240
Grp Sat Flow(s),veh/h/ln	0	1683	1697	1712	1637	1514
Q Serve(g_s), s	0.0	10.1	17.0	17.1	2.2	7.4
Cycle Q Clear(g_c), s	0.0	10.1	17.0	17.1	2.2	7.4
Prop In Lane	0.00			0.24	1.00	1.00
Lane Grp Cap(c), veh/h	0	1711	862	870	1119	517
V/C Ratio(X)	0.00	0.50	0.72	0.72	0.15	0.46
Avail Cap(c_a), veh/h	0	1711	862	870	1119	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.7	11.4	11.5	13.7	15.5
Incr Delay (d2), s/veh	0.0	1.1	5.1	5.1	0.3	3.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	1.2	1.2	0.0	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.0	10.8	16.6	16.6	14.0	18.4
LnGrp LOS		B	B	B	B	B
Approach Vol, veh/h		858	1248		409	
Approach Delay, s/veh		10.8	16.6		16.6	
Approach LOS		B	B		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				35.0	25.0	35.0
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				30.5	20.5	30.5
Max Q Clear Time (g_c+I1), s				12.1	9.4	19.1
Green Ext Time (p_c), s				11.6	1.8	9.8
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			14.6			
HCM 6th LOS			B			

Intersection	
Intersection Delay, s/veh	0
Intersection LOS	-

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕		↕	
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0
Number of Lanes	0	2	2	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay, s/veh	0	0	0
HCM LOS	-	-	-

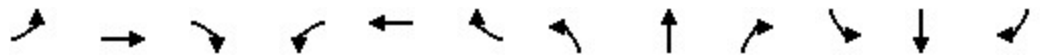
Lane	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	0%	0%	0%	0%
Vol Thru, %	100%	100%	100%	100%	100%
Vol Right, %	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	0	0	0	0
LT Vol	0	0	0	0	0
Through Vol	0	0	0	0	0
RT Vol	0	0	0	0	0
Lane Flow Rate	0	0	0	0	0
Geometry Grp	5	5	5	5	2
Degree of Util (X)	0	0	0	0	0
Departure Headway (Hd)	4.534	2.8	4.534	2.8	3.934
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	0	0	0	0	0
Service Time	2.234	0.5	2.234	0.5	1.934
HCM Lane V/C Ratio	0	0	0	0	0
HCM Control Delay, s/veh	7.2	5.5	7.2	5.5	6.9
HCM Lane LOS	N	N	N	N	N
HCM 95th-tile Q	0	0	0	0	0

HCM 6th Signalized Intersection Summary

Future Background 2037

1: Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal

03/27/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶		↷	↶	↷	↷	↶	↷			↷	↷
Traffic Volume (veh/h)	0	0	0	225	5	470	2	1183	202	0	1548	386
Future Volume (veh/h)	0	0	0	225	5	470	2	1183	202	0	1548	386
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1772	0	1772	1674	1800	1505	1800	1716	1702	0	1674	1575
Adj Flow Rate, veh/h	0	0	0	241	0	495	2	1245	213	0	1629	406
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2	9	0	21	0	6	7	0	9	16
Cap, veh/h	0	0	0	742	0	592	143	1876	319	0	3075	898
Arrive On Green	0.00	0.00	0.00	0.23	0.00	0.23	0.67	0.67	0.67	0.00	0.67	0.67
Sat Flow, veh/h		0		3188	0	2546	200	2787	473	0	4720	1335
Grp Volume(v), veh/h		0.0		241	0	495	2	724	734	0	1629	406
Grp Sat Flow(s),veh/h/ln				1594	0	1273	200	1630	1631	0	1523	1335
Q Serve(g_s), s				10.0	0.0	29.6	0.8	41.8	42.8	0.0	29.0	22.9
Cycle Q Clear(g_c), s				10.0	0.0	29.6	29.8	41.8	42.8	0.0	29.0	22.9
Prop In Lane				1.00		1.00	1.00		0.29	0.00		1.00
Lane Grp Cap(c), veh/h				742	0	592	143	1097	1097	0	3075	898
V/C Ratio(X)				0.32	0.00	0.84	0.01	0.66	0.67	0.00	0.53	0.45
Avail Cap(c_a), veh/h				1096	0	875	143	1097	1097	0	3075	898
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				51.0	0.0	58.5	20.9	15.4	15.6	0.0	13.3	12.3
Incr Delay (d2), s/veh				0.3	0.0	4.6	0.2	3.1	3.2	0.0	0.7	1.6
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.3	0.0	8.2	0.0	8.7	8.9	0.0	5.2	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				51.2	0.0	63.1	21.0	18.5	18.8	0.0	14.0	13.9
LnGrp LOS				D		E	C	B	B		B	B
Approach Vol, veh/h					736			1460			2035	
Approach Delay, s/veh					59.2			18.7			13.9	
Approach LOS					E			B			B	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		115.2		44.8		115.2						
Change Period (Y+Rc), s		7.5		7.6		7.5						
Max Green Setting (Gmax), s		46.9		55.0		68.4						
Max Q Clear Time (g_c+I1), s		31.0		31.6		44.8						
Green Ext Time (p_c), s		15.1		5.5		20.7						

Intersection Summary

HCM 6th Ctrl Delay, s/veh	23.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 2: Winston Churchill Blvd & Hwy 401 EB Ramp Terminal

Future Background 2037
 03/27/2026



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↶↶	↷		↑↑↑	↑↑↑	
Traffic Volume (veh/h)	478	212	0	840	912	730
Future Volume (veh/h)	478	212	0	840	912	730
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1674	1758	0	1758	1702	1646
Adj Flow Rate, veh/h	503	223	0	884	960	768
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	9	3	0	3	7	11
Cap, veh/h	631	295	0	3301	2130	992
Arrive On Green	0.20	0.20	0.00	0.69	0.69	0.69
Sat Flow, veh/h	3188	1490	0	5115	3250	1442
Grp Volume(v), veh/h	503	223	0	884	960	768
Grp Sat Flow(s),veh/h/ln	1594	1490	0	1600	1549	1442
Q Serve(g_s), s	21.0	19.8	0.0	9.9	19.6	49.8
Cycle Q Clear(g_c), s	21.0	19.8	0.0	9.9	19.6	49.8
Prop In Lane	1.00	1.00	0.00			1.00
Lane Grp Cap(c), veh/h	631	295	0	3301	2130	992
V/C Ratio(X)	0.80	0.76	0.00	0.27	0.45	0.77
Avail Cap(c_a), veh/h	945	442	0	3301	2130	992
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.84	1.00	1.00
Uniform Delay (d), s/veh	53.5	53.0	0.0	8.4	9.9	14.6
Incr Delay (d2), s/veh	2.9	4.1	0.0	0.2	0.7	5.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	6.4	0.0	1.3	2.7	7.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	56.4	57.0	0.0	8.5	10.6	20.5
LnGrp LOS	E	E		A	B	C
Approach Vol, veh/h	726			884	1728	
Approach Delay, s/veh	56.6			8.5	15.0	
Approach LOS	E			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		103.8		36.2		103.8
Change Period (Y+Rc), s		7.5		8.5		7.5
Max Green Setting (Gmax), s		82.5		41.5		82.5
Max Q Clear Time (g_c+I1), s		11.9		23.0		51.8
Green Ext Time (p_c), s		24.2		4.7		27.9
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			22.3			
HCM 6th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 3: Winston Churchill Blvd & Argentia Rd

Future Background 2037
 03/27/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↖	↑↑	↗	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗
Traffic Volume (veh/h)	324	238	57	74	101	135	76	1212	95	272	559	156
Future Volume (veh/h)	324	238	57	74	101	135	76	1212	95	272	559	156
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.98		0.97	1.00		1.00	1.00		0.99
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	1826	1885	1870	1811	1870	1781	1870	1870	1841	1856	1796	1752
Adj Flow Rate, veh/h	341	251	60	78	106	142	80	1276	0	286	588	164
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	1	2	6	2	8	2	2	4	3	7	10
Cap, veh/h	390	1105	545	353	803	478	147	2066		334	2254	850
Arrive On Green	0.12	0.31	0.31	0.05	0.23	0.23	0.04	0.40	0.00	0.10	0.46	0.46
Sat Flow, veh/h	3374	3582	1550	1725	3554	1464	3456	5106	1560	3428	4904	1476
Grp Volume(v), veh/h	341	251	60	78	106	142	80	1276	0	286	588	164
Grp Sat Flow(s),veh/h/ln	1687	1791	1550	1725	1777	1464	1728	1702	1560	1714	1635	1476
Q Serve(g_s), s	15.9	8.3	4.2	5.5	3.8	11.6	3.6	31.7	0.0	13.1	11.8	8.5
Cycle Q Clear(g_c), s	15.9	8.3	4.2	5.5	3.8	11.6	3.6	31.7	0.0	13.1	11.8	8.5
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	390	1105	545	353	803	478	147	2066		334	2254	850
V/C Ratio(X)	0.87	0.23	0.11	0.22	0.13	0.30	0.54	0.62		0.86	0.26	0.19
Avail Cap(c_a), veh/h	443	1375	662	367	1044	577	173	2066		386	2254	850
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.79	0.79	0.79
Uniform Delay (d), s/veh	69.6	41.1	35.1	44.4	49.4	40.6	75.1	37.8	0.0	71.1	26.5	16.2
Incr Delay (d2), s/veh	16.0	0.1	0.1	0.3	0.1	0.3	3.1	1.4	0.0	12.6	0.2	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	6.7	3.0	1.3	2.0	1.4	3.4	1.5	10.4	0.0	5.5	3.5	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	85.6	41.2	35.1	44.8	49.5	40.9	78.2	39.2	0.0	83.7	26.8	16.6
LnGrp LOS	F	D	D	D	D	D	E	D		F	C	B
Approach Vol, veh/h		652			326			1356			1038	
Approach Delay, s/veh		63.9			44.6			41.5			40.9	
Approach LOS		E			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.8	81.0	23.5	43.7	20.6	72.2	10.3	56.9				
Change Period (Y+Rc), s	5.0	7.5	5.0	7.5	5.0	7.5	3.0	7.5				
Max Green Setting (Gmax), s	3.0	59.0	21.0	47.0	18.0	49.0	8.6	61.4				
Max Q Clear Time (g_c+1.5I), s	15.6	13.8	17.9	13.6	15.1	33.7	7.5	10.3				
Green Ext Time (p_c), s	0.1	14.0	0.6	2.6	0.4	12.8	0.0	5.2				

Intersection Summary

HCM 6th Ctrl Delay, s/veh	45.9
HCM 6th LOS	D

Notes

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

HCM 6th Signalized Intersection Summary
 4: Tenth Line W & Argentia Rd

Future Background 2037
 03/27/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	355	36	69	166	16	73	8	214	7	6	4
Future Volume (veh/h)	6	355	36	69	166	16	73	8	214	7	6	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	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	1900	1841	1900	1826	1826	1900	1900	1900	1885	1159	1900	1900
Adj Flow Rate, veh/h	6	370	38	72	173	17	76	8	223	7	6	4
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, %	0	4	0	5	5	0	0	0	1	50	0	0
Cap, veh/h	628	811	706	508	1010	887	431	15	406	193	155	103
Arrive On Green	0.44	0.44	0.44	0.07	0.55	0.55	0.07	0.26	0.26	0.15	0.15	0.15
Sat Flow, veh/h	1207	1841	1601	1739	1826	1603	1810	56	1559	710	1062	708
Grp Volume(v), veh/h	6	370	38	72	173	17	76	0	231	7	0	10
Grp Sat Flow(s),veh/h/ln	1207	1841	1601	1739	1826	1603	1810	0	1615	710	0	1769
Q Serve(g_s), s	0.2	10.6	1.0	1.5	3.5	0.4	2.5	0.0	9.3	0.6	0.0	0.4
Cycle Q Clear(g_c), s	0.2	10.6	1.0	1.5	3.5	0.4	2.5	0.0	9.3	1.3	0.0	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.40
Lane Grp Cap(c), veh/h	628	811	706	508	1010	887	431	0	420	193	0	258
V/C Ratio(X)	0.01	0.46	0.05	0.14	0.17	0.02	0.18	0.00	0.55	0.04	0.00	0.04
Avail Cap(c_a), veh/h	628	811	706	579	1010	887	502	0	958	402	0	778
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.8	14.7	12.0	9.4	8.3	7.6	22.2	0.0	24.0	28.2	0.0	27.5
Incr Delay (d2), s/veh	0.0	1.8	0.1	0.1	0.4	0.0	0.2	0.0	1.1	0.1	0.0	0.1
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	1.8	0.1	0.1	0.2	0.0	0.6	0.0	2.1	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	11.8	16.5	12.2	9.5	8.6	7.6	22.4	0.0	25.1	28.3	0.0	27.6
LnGrp LOS	B	B	B	A	A	A	C		C	C		C
Approach Vol, veh/h		414			262			307				17
Approach Delay, s/veh		16.1			8.8			24.4				27.9
Approach LOS		B			A			C				C
Timer - Assigned Phs	1	2		4		6	7	8				
Phs Duration (G+Y+Rc), s	8.4	40.6		26.0		49.0	8.6	17.5				
Change Period (Y+Rc), s	3.0	7.5		6.5		7.5	3.0	6.5				
Max Green Setting (Gmax), s	30.5	30.0		44.5		41.5	8.5	33.0				
Max Q Clear Time (g_c+1/3), s	13.5	12.6		11.3		5.5	4.5	3.3				
Green Ext Time (p_c), s	0.1	5.2		4.4		2.9	0.1	0.1				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				16.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 5: Ninth Line & Argentia Rd

Future Background 2037
 03/27/2026



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	46	29	444	206	93	805
Future Volume (veh/h)	46	29	444	206	93	805
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1796	1796	1870	1870	1870	1856
Adj Flow Rate, veh/h	49	31	477	222	100	866
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	7	7	2	2	2	3
Cap, veh/h	113	101	2558	1141	645	2538
Arrive On Green	0.07	0.07	0.72	0.72	0.72	0.72
Sat Flow, veh/h	1711	1522	3647	1585	747	3618
Grp Volume(v), veh/h	49	31	477	222	100	866
Grp Sat Flow(s),veh/h/ln	1711	1522	1777	1585	747	1763
Q Serve(g_s), s	1.4	1.0	2.2	2.3	2.6	4.7
Cycle Q Clear(g_c), s	1.4	1.0	2.2	2.3	4.8	4.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	113	101	2558	1141	645	2538
V/C Ratio(X)	0.43	0.31	0.19	0.19	0.15	0.34
Avail Cap(c_a), veh/h	599	533	2558	1141	645	2538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	22.9	2.3	2.3	3.1	2.7
Incr Delay (d2), s/veh	2.6	1.7	0.2	0.4	0.5	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.2	0.1	0.1	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	25.7	24.6	2.5	2.7	3.6	3.0
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	80		699			966
Approach Delay, s/veh	25.2		2.6			3.1
Approach LOS	C		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		43.5			43.5	7.9
Change Period (Y+Rc), s		6.5			6.5	4.5
Max Green Setting (Gmax), s		37.0			37.0	18.0
Max Q Clear Time (g_c+I1), s		6.8			4.3	3.4
Green Ext Time (p_c), s		17.6			10.5	0.3
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			3.9			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 6: Ninth Line & Derry Rd E/Derry Rd W

Future Background 2037
 03/27/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	733	38	84	401	18	105	349	127	24	459	302
Future Volume (veh/h)	171	733	38	84	401	18	105	349	127	24	459	302
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1870	1811	1811	1885	1900	1841	1841	1856	1900	1856	1841
Adj Flow Rate, veh/h	176	756	39	87	413	19	108	360	131	25	473	311
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, %	3	2	6	6	1	0	4	4	3	0	3	4
Cap, veh/h	563	1779	92	448	1737	80	247	1188	534	288	931	412
Arrive On Green	0.12	1.00	1.00	0.04	0.50	0.50	0.06	0.34	0.34	0.26	0.26	0.26
Sat Flow, veh/h	1767	3438	177	1725	3487	160	1753	3497	1572	920	3526	1560
Grp Volume(v), veh/h	176	391	404	87	212	220	108	360	131	25	473	311
Grp Sat Flow(s),veh/h/ln	1767	1777	1838	1725	1791	1856	1753	1749	1572	920	1763	1560
Q Serve(g_s), s	7.9	0.0	0.0	3.9	10.8	10.8	7.0	12.1	9.6	3.3	18.2	29.3
Cycle Q Clear(g_c), s	7.9	0.0	0.0	3.9	10.8	10.8	7.0	12.1	9.6	3.3	18.2	29.3
Prop In Lane	1.00		0.10	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	563	919	951	448	892	925	247	1188	534	288	931	412
V/C Ratio(X)	0.31	0.42	0.43	0.19	0.24	0.24	0.44	0.30	0.25	0.09	0.51	0.76
Avail Cap(c_a), veh/h	564	919	951	482	892	925	311	1727	776	393	1333	590
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)	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.8	0.0	0.0	17.8	22.9	22.9	39.4	38.9	38.0	44.5	50.0	54.1
Incr Delay (d2), s/veh	0.3	1.3	1.3	0.2	0.6	0.6	1.2	0.1	0.2	0.1	0.4	3.4
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	9	0.3	0.3	1.1	3.4	3.6	2.5	4.2	3.0	0.6	6.6	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.1	1.3	1.3	18.0	23.5	23.5	40.6	39.0	38.3	44.7	50.5	57.5
LnGrp LOS	B	A	A	B	C	C	D	D	D	D	D	E
Approach Vol, veh/h		971			519			599			809	
Approach Delay, s/veh		4.0			22.6			39.1			53.0	
Approach LOS		A			C			D			D	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	89.3		60.9	12.9	86.2	12.1	48.7				
Change Period (Y+Rc), s	3.0	6.5		* 6.5	3.0	6.5	3.0	6.5				
Max Green Setting (Gmax), s	10.0	55.5		* 7.9	10.0	55.5	15.0	60.5				
Max Q Clear Time (g_c+1.5), s	15.0	2.0		14.1	9.9	12.8	9.0	31.3				
Green Ext Time (p_c), s	0.1	18.7		8.4	0.0	8.1	0.2	10.9				

Intersection Summary

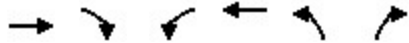
HCM 6th Ctrl Delay, s/veh	28.3
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
 7: Hwy 407 NB Ramp Terminal & Derry Rd E

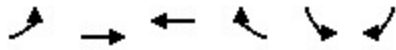
Future Background 2037
 03/27/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	↑
Traffic Volume (veh/h)	852	200	1	685	9	109
Future Volume (veh/h)	852	200	1	685	9	109
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1758	1477	1758
Adj Flow Rate, veh/h	878	206	1	706	9	112
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	3	23	3
Cap, veh/h	1488	349	45	1802	870	475
Arrive On Green	0.55	0.55	0.55	0.55	0.32	0.32
Sat Flow, veh/h	2795	635	0	3356	2729	1490
Grp Volume(v), veh/h	546	538	379	328	9	112
Grp Sat Flow(s),veh/h/ln	1683	1658	1757	1520	1365	1490
Q Serve(g_s), s	17.3	17.3	0.0	9.9	0.2	4.4
Cycle Q Clear(g_c), s	17.3	17.3	9.9	9.9	0.2	4.4
Prop In Lane		0.38	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	926	912	1011	836	870	475
V/C Ratio(X)	0.59	0.59	0.37	0.39	0.01	0.24
Avail Cap(c_a), veh/h	926	912	1011	836	870	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.93	0.93	1.00	1.00
Uniform Delay (d), s/veh	12.0	12.0	10.3	10.3	18.6	20.1
Incr Delay (d2), s/veh	2.8	2.8	1.0	1.3	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	1.8	0.9	0.9	0.0	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	14.7	14.8	11.3	11.6	18.6	21.2
LnGrp LOS	B	B	B	B	B	C
Approach Vol, veh/h	1084			707	121	
Approach Delay, s/veh	14.8			11.5	21.0	
Approach LOS	B			B	C	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		30.0		50.0		50.0
Change Period (Y+Rc), s		4.5		6.0		6.0
Max Green Setting (Gmax), s		25.5		44.0		44.0
Max Q Clear Time (g_c+11), s		6.4		19.3		11.9
Green Ext Time (p_c), s		0.6		17.4		13.1
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			13.9			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 8: Derry Rd E & Hwy 407 SB Ramp Terminal

Future Background 2037
 03/27/2026



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	1037	542	145	26	52
Future Volume (veh/h)	0	1037	542	145	26	52
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1772	1758	1758	1688	1575
Adj Flow Rate, veh/h	0	1092	571	153	27	55
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	3	3	8	16
Cap, veh/h	0	2041	1580	422	877	375
Arrive On Green	0.00	0.61	0.61	0.61	0.28	0.28
Sat Flow, veh/h	0	3544	2694	696	3118	1335
Grp Volume(v), veh/h	0	1092	365	359	27	55
Grp Sat Flow(s),veh/h/ln	0	1683	1670	1633	1559	1335
Q Serve(g_s), s	0.0	15.1	8.8	8.9	0.5	2.5
Cycle Q Clear(g_c), s	0.0	15.1	8.8	8.9	0.5	2.5
Prop In Lane	0.00			0.43	1.00	1.00
Lane Grp Cap(c), veh/h	0	2041	1012	990	877	375
V/C Ratio(X)	0.00	0.54	0.36	0.36	0.03	0.15
Avail Cap(c_a), veh/h	0	2041	1012	990	877	375
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.2	7.9	7.9	20.8	21.6
Incr Delay (d2), s/veh	0.0	1.0	1.0	1.0	0.1	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.3	0.3	0.1	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.0	10.2	8.9	9.0	20.9	22.4
LnGrp LOS		B	A	A	C	C
Approach Vol, veh/h		1092	724		82	
Approach Delay, s/veh		10.2	9.0		21.9	
Approach LOS		B	A		C	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				53.0	27.0	53.0
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				48.5	22.5	48.5
Max Q Clear Time (g_c+I1), s				17.1	4.5	10.9
Green Ext Time (p_c), s				21.2	0.3	14.7
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			10.2			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary

Future Background 2037 PM

1: Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal

03/27/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶		↷	↶	↷	↷	↶	↷			↷	↷
Traffic Volume (veh/h)	7	0	18	803	13	755	5	1113	221	0	1431	434
Future Volume (veh/h)	7	0	18	803	13	755	5	1113	221	0	1431	434
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1800	0	1800	1786	1800	1660	1800	1702	1772	0	1702	1688
Adj Flow Rate, veh/h	7	0	19	846	0	786	5	1159	230	0	1491	452
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, %	0	0	0	1	0	10	0	7	2	0	7	8
Cap, veh/h	0	0	0	1051	0	869	183	1606	317	0	2772	854
Arrive On Green	0.00	0.00	0.00	0.31	0.00	0.31	0.60	0.60	0.60	0.00	0.60	0.60
Sat Flow, veh/h		0		3402	0	2813	340	2692	531	0	4799	1430
Grp Volume(v), veh/h		0.0		846	0	786	5	693	696	0	1491	452
Grp Sat Flow(s),veh/h/ln				1701	0	1406	340	1617	1606	0	1549	1430
Q Serve(g_s), s				36.6	0.0	42.9	1.4	48.4	49.3	0.0	30.5	29.8
Cycle Q Clear(g_c), s				36.6	0.0	42.9	31.9	48.4	49.3	0.0	30.5	29.8
Prop In Lane				1.00		1.00	1.00		0.33	0.00		1.00
Lane Grp Cap(c), veh/h				1051	0	869	183	965	959	0	2772	854
V/C Ratio(X)				0.81	0.00	0.90	0.03	0.72	0.73	0.00	0.54	0.53
Avail Cap(c_a), veh/h				1080	0	893	183	965	959	0	2772	854
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				50.9	0.0	53.0	28.6	22.8	22.9	0.0	19.2	19.0
Incr Delay (d2), s/veh				4.4	0.0	12.4	0.3	4.6	4.8	0.0	0.8	2.3
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				13.1	0.0	13.5	0.1	12.5	12.7	0.0	7.0	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				55.3	0.0	65.4	28.9	27.4	27.7	0.0	19.9	21.4
LnGrp LOS				E		E	C	C	C		B	C
Approach Vol, veh/h					1632			1394			1943	
Approach Delay, s/veh					60.2			27.6			20.2	
Approach LOS					E			C			C	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		103.0		57.0		103.0						
Change Period (Y+Rc), s		7.5		7.6		7.5						
Max Green Setting (Gmax), s		48.7		50.8		48.7						
Max Q Clear Time (g_c+I1), s		32.5		44.9		51.3						
Green Ext Time (p_c), s		15.1		4.5		0.0						

Intersection Summary

HCM 6th Ctrl Delay, s/veh	35.4
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 2: Winston Churchill Blvd & Hwy 401 EB Ramp Terminal

Future Background 2037 PM
 03/27/2026



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	340	329	1	944	1746	572
Future Volume (veh/h)	340	329	1	944	1746	572
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1617	1744	1772	1744	1772	1603
Adj Flow Rate, veh/h	467	237	1	1004	1857	609
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	13	4	2	4	2	14
Cap, veh/h	590	283	26	3212	2536	791
Arrive On Green	0.19	0.19	0.69	0.69	0.69	0.69
Sat Flow, veh/h	3081	1478	0	4768	3812	1140
Grp Volume(v), veh/h	467	237	378	627	1629	837
Grp Sat Flow(s),veh/h/ln	1540	1478	1738	1444	1612	1567
Q Serve(g_s), s	20.2	21.6	0.0	11.9	43.7	49.1
Cycle Q Clear(g_c), s	20.2	21.6	11.8	11.9	43.7	49.1
Prop In Lane	1.00	1.00	0.00			0.73
Lane Grp Cap(c), veh/h	590	283	1233	2005	2239	1088
V/C Ratio(X)	0.79	0.84	0.31	0.31	0.73	0.77
Avail Cap(c_a), veh/h	724	347	1233	2005	2239	1088
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.86	0.86	1.00	1.00
Uniform Delay (d), s/veh	53.9	54.5	8.3	8.4	13.2	14.0
Incr Delay (d2), s/veh	4.9	13.9	0.6	0.4	2.1	5.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	7.7	1.8	1.4	6.0	7.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	58.8	68.4	8.9	8.7	15.3	19.3
LnGrp LOS	E	E	A	A	B	B
Approach Vol, veh/h	704			1005	2466	
Approach Delay, s/veh	62.1			8.8	16.7	
Approach LOS	E			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		104.7		35.3		104.7
Change Period (Y+Rc), s		7.5		8.5		7.5
Max Green Setting (Gmax), s		91.1		32.9		91.1
Max Q Clear Time (g_c+I1), s		13.9		23.6		51.1
Green Ext Time (p_c), s		29.3		3.2		39.2

Intersection Summary

HCM 6th Ctrl Delay, s/veh	22.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 3: Winston Churchill Blvd & Argentia Rd

Future Background 2037 PM
 03/27/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↖	↑↑	↗	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗
Traffic Volume (veh/h)	332	325	199	268	573	284	220	755	94	229	1235	348
Future Volume (veh/h)	332	325	199	268	573	284	220	755	94	229	1235	348
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.98		0.96	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	1841	1870	1885	1885	1870	1856	1885	1826	1870	1841	1870	1856
Adj Flow Rate, veh/h	335	328	201	271	579	287	222	763	0	231	1247	352
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	2	1	1	2	3	1	5	2	4	2	3
Cap, veh/h	391	1073	587	479	1006	556	269	1811		280	1881	757
Arrive On Green	0.12	0.30	0.30	0.11	0.28	0.28	0.08	0.36	0.00	0.08	0.37	0.37
Sat Flow, veh/h	3401	3554	1534	1795	3554	1506	3483	4985	1585	3401	5106	1565
Grp Volume(v), veh/h	335	328	201	271	579	287	222	763	0	231	1247	352
Grp Sat Flow(s),veh/h/ln1700	1777	1534	1795	1777	1506	1742	1662	1585	1700	1702	1565	
Q Serve(g_s), s	15.5	11.4	15.0	17.3	22.3	23.9	10.0	18.4	0.0	10.7	32.7	24.0
Cycle Q Clear(g_c), s	15.5	11.4	15.0	17.3	22.3	23.9	10.0	18.4	0.0	10.7	32.7	24.0
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	391	1073	587	479	1006	556	269	1811		280	1881	757
V/C Ratio(X)	0.86	0.31	0.34	0.57	0.58	0.52	0.82	0.42		0.82	0.66	0.46
Avail Cap(c_a), veh/h	489	1213	647	479	1044	572	327	1811		361	1881	757
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.54	0.54	0.54
Uniform Delay (d), s/veh	69.5	43.0	35.5	35.2	49.1	39.8	72.7	38.3	0.0	72.3	42.2	27.5
Incr Delay (d2), s/veh	11.7	0.2	0.3	1.6	0.7	0.8	13.3	0.7	0.0	6.6	1.0	1.1
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/lr6.3		4.1	4.4	6.1	8.1	7.1	4.3	6.0	0.0	4.2	10.9	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	81.2	43.1	35.8	36.7	49.9	40.6	86.1	39.0	0.0	78.8	43.2	28.7
LnGrp LOS	F	D	D	D	D	D	F	D		E	D	C
Approach Vol, veh/h		864			1137			985			1830	
Approach Delay, s/veh		56.2			44.4			49.6			44.9	
Approach LOS		E			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.4	66.4	23.4	52.8	18.2	65.6	20.4	55.8				
Change Period (Y+Rc), s	5.0	7.5	5.0	7.5	5.0	7.5	3.0	7.5				
Max Green Setting (Gmax), s	15.0	50.0	23.0	47.0	17.0	48.0	17.4	54.6				
Max Q Clear Time (g_c+112), s	11.2	34.7	17.5	25.9	12.7	20.4	19.3	17.0				
Green Ext Time (p_c), s	0.3	13.4	0.9	10.5	0.5	13.5	0.0	7.5				

Intersection Summary

HCM 6th Ctrl Delay, s/veh	47.8
HCM 6th LOS	D

Notes

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

HCM 6th Signalized Intersection Summary
 4: Tenth Line W & Argentia Rd

Future Background 2037 PM
 03/27/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Traffic Volume (veh/h)	2	338	96	451	518	8	61	2	281	7	8	7
Future Volume (veh/h)	2	338	96	451	518	8	61	2	281	7	8	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.99	0.99		0.99	0.99		0.99
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		No		No
Adj Sat Flow, veh/h/ln	418	1826	1870	1900	1856	1604	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2	363	103	485	557	9	66	2	302	8	9	8
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	100	5	2	0	3	20	0	0	0	0	0	0
Cap, veh/h	154	700	598	504	984	712	463	3	462	227	170	151
Arrive On Green	0.38	0.38	0.38	0.11	0.53	0.53	0.07	0.29	0.29	0.18	0.18	0.18
Sat Flow, veh/h	188	1826	1560	1810	1856	1344	1810	11	1588	1085	921	819
Grp Volume(v), veh/h	2	363	103	485	557	9	66	0	304	8	0	17
Grp Sat Flow(s),veh/h/ln	188	1826	1560	1810	1856	1344	1810	0	1599	1085	0	1740
Q Serve(g_s), s	0.6	12.0	3.4	8.5	15.8	0.2	2.1	0.0	13.0	0.5	0.0	0.6
Cycle Q Clear(g_c), s	4.8	12.0	3.4	8.5	15.8	0.2	2.1	0.0	13.0	5.2	0.0	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.47
Lane Grp Cap(c), veh/h	154	700	598	504	984	712	463	0	465	227	0	321
V/C Ratio(X)	0.01	0.52	0.17	0.96	0.57	0.01	0.14	0.00	0.65	0.04	0.00	0.05
Avail Cap(c_a), veh/h	154	700	598	504	984	712	536	0	909	484	0	734
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.8	18.6	15.9	20.4	12.3	8.7	21.2	0.0	24.3	30.2	0.0	26.3
Incr Delay (d2), s/veh	0.2	2.7	0.6	30.5	2.4	0.0	0.1	0.0	1.6	0.1	0.0	0.1
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	2.7	0.6	5.5	1.9	0.0	0.5	0.0	3.0	0.1	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.0	21.3	16.6	51.0	14.7	8.7	21.3	0.0	25.9	30.3	0.0	26.4
LnGrp LOS	B	C	B	D	B	A	C		C	C		C
Approach Vol, veh/h		468			1051			370				25
Approach Delay, s/veh		20.3			31.4			25.1				27.6
Approach LOS		C			C			C				C
Timer - Assigned Phs	1	2		4		6	7	8				
Phs Duration (G+Y+Rc), s	1.5	37.5		29.3		49.0	8.3	20.9				
Change Period (Y+Rc), s	3.0	7.5		6.5		7.5	3.0	6.5				
Max Green Setting (Gmax), s	5	30.0		44.5		41.5	8.5	33.0				
Max Q Clear Time (g_c+110), s	10	14.0		15.0		17.8	4.1	7.2				
Green Ext Time (p_c), s	0.0	5.2		5.8		9.5	0.1	0.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				27.4								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
5: Ninth Line & Argentia Rd

Future Background 2037 PM
03/27/2026



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	254	199	1006	127	73	747
Future Volume (veh/h)	254	199	1006	127	73	747
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1856	1811	1870
Adj Flow Rate, veh/h	265	207	1048	132	76	778
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	3	6	2
Cap, veh/h	358	319	2210	970	331	2193
Arrive On Green	0.20	0.20	0.62	0.62	0.62	0.62
Sat Flow, veh/h	1795	1598	3676	1572	460	3647
Grp Volume(v), veh/h	265	207	1048	132	76	778
Grp Sat Flow(s),veh/h/ln	1795	1598	1791	1572	460	1777
Q Serve(g_s), s	8.3	7.1	9.5	2.1	6.4	6.4
Cycle Q Clear(g_c), s	8.3	7.1	9.5	2.1	15.9	6.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	358	319	2210	970	331	2193
V/C Ratio(X)	0.74	0.65	0.47	0.14	0.23	0.35
Avail Cap(c_a), veh/h	539	480	2210	970	331	2193
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.5	22.1	6.2	4.8	10.5	5.6
Incr Delay (d2), s/veh	3.0	2.2	0.7	0.3	1.6	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	1.3	0.2	0.1	0.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	25.6	24.3	6.9	5.1	12.1	6.1
LnGrp LOS	C	C	A	A	B	A
Approach Vol, veh/h	472		1180			854
Approach Delay, s/veh	25.0		6.7			6.6
Approach LOS	C		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		43.5			43.5	16.5
Change Period (Y+Rc), s		6.5			6.5	4.5
Max Green Setting (Gmax), s		37.0			37.0	18.0
Max Q Clear Time (g_c+I1), s		17.9			11.5	10.3
Green Ext Time (p_c), s		12.0			18.1	1.7
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			10.1			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 6: Ninth Line & Derry Rd E/Derry Rd W

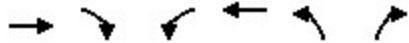
Future Background 2037 PM
 03/27/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗		↖	↖↗	↖	↖	↖↗	↖
Traffic Volume (veh/h)	257	667	130	164	941	53	80	714	144	46	537	257
Future Volume (veh/h)	257	667	130	164	941	53	80	714	144	46	537	257
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1885	1885	1900	1885	1885	1870	1841	1885	1870	1900	1885	1870
Adj Flow Rate, veh/h	273	710	138	174	1001	56	85	760	153	49	571	273
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	0	1	1	2	4	1	2	0	1	2
Cap, veh/h	367	1567	304	407	1712	96	195	1115	493	123	873	386
Arrive On Green	0.09	0.52	0.52	0.06	0.50	0.50	0.05	0.31	0.31	0.24	0.24	0.24
Sat Flow, veh/h	1795	2990	581	1795	3448	193	1753	3582	1584	621	3582	1583
Grp Volume(v), veh/h	273	425	423	174	520	537	85	760	153	49	571	273
Grp Sat Flow(s),veh/h/ln	1795	1791	1780	1795	1791	1850	1753	1791	1584	621	1791	1583
Q Serve(g_s), s	11.4	23.7	23.7	7.5	33.0	33.0	5.7	29.7	11.8	12.0	23.0	25.2
Cycle Q Clear(g_c), s	11.4	23.7	23.7	7.5	33.0	33.0	5.7	29.7	11.8	30.8	23.0	25.2
Prop In Lane	1.00		0.33	1.00		0.10	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	367	938	933	407	889	918	195	1115	493	123	873	386
V/C Ratio(X)	0.74	0.45	0.45	0.43	0.58	0.58	0.44	0.68	0.31	0.40	0.65	0.71
Avail Cap(c_a), veh/h	543	938	933	633	889	918	443	1645	727	127	895	396
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.8	23.8	23.8	18.7	28.6	28.6	42.8	48.2	42.0	66.4	54.4	55.3
Incr Delay (d2), s/veh	2.7	1.4	1.4	0.7	2.8	2.7	1.5	0.7	0.4	2.1	1.7	5.6
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	8.2	7.3	7.3	2.2	10.8	11.1	2.1	10.7	3.8	1.7	8.7	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.4	25.1	25.2	19.4	31.4	31.3	44.4	48.9	42.4	68.4	56.1	60.9
LnGrp LOS	C	C	C	B	C	C	D	D	D	E	E	E
Approach Vol, veh/h		1121			1231			998			893	
Approach Delay, s/veh		25.2			29.7			47.5			58.2	
Approach LOS		C			C			D			E	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.5	90.3		56.3	17.8	85.9	10.8	45.5				
Change Period (Y+Rc), s	3.0	6.5		6.5	3.0	6.5	3.0	6.5				
Max Green Setting (Gmax), s	30.5	40.0		73.5	30.5	40.0	30.5	40.0				
Max Q Clear Time (g_c+1.5p_c), s	19.5	25.7		31.7	13.4	35.0	7.7	32.8				
Green Ext Time (p_c), s	0.8	9.3		18.1	1.3	4.2	0.3	4.8				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh											38.7	
HCM 6th LOS											D	

HCM 6th Signalized Intersection Summary
 7: Hwy 407 NB Ramp Terminal & Derry Rd E

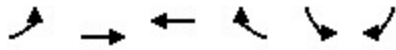
Future Background 2037 PM
 03/27/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	↑
Traffic Volume (veh/h)	948	70	0	1232	40	145
Future Volume (veh/h)	948	70	0	1232	40	145
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1786	1688	0	1786	1688	1772
Adj Flow Rate, veh/h	967	71	0	1257	41	148
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	8	0	1	8	2
Cap, veh/h	1496	110	0	1584	1039	501
Arrive On Green	0.47	0.47	0.00	0.47	0.33	0.33
Sat Flow, veh/h	3294	235	0	3572	3118	1502
Grp Volume(v), veh/h	512	526	0	1257	41	148
Grp Sat Flow(s),veh/h/ln	1697	1744	0	1697	1559	1502
Q Serve(g_s), s	13.8	13.8	0.0	18.8	0.5	4.4
Cycle Q Clear(g_c), s	13.8	13.8	0.0	18.8	0.5	4.4
Prop In Lane		0.13	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	792	814	0	1584	1039	501
V/C Ratio(X)	0.65	0.65	0.00	0.79	0.04	0.30
Avail Cap(c_a), veh/h	792	814	0	1584	1039	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.79	1.00	1.00
Uniform Delay (d), s/veh	12.2	12.2	0.0	13.6	13.5	14.8
Incr Delay (d2), s/veh	4.1	3.9	0.0	3.3	0.1	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.1	0.0	1.9	0.1	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	16.3	16.2	0.0	16.9	13.6	16.3
LnGrp LOS	B	B		B	B	B
Approach Vol, veh/h	1038			1257	189	
Approach Delay, s/veh	16.2			16.9	15.7	
Approach LOS	B			B	B	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		26.0		34.0		34.0
Change Period (Y+Rc), s		6.0		6.0		6.0
Max Green Setting (Gmax), s		20.0		28.0		28.0
Max Q Clear Time (g_c+I1), s		6.4		15.8		20.8
Green Ext Time (p_c), s		0.8		9.4		6.5
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			16.5			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 8: Derry Rd E & Hwy 407 SB Ramp Terminal

Future Background 2037 PM
 03/27/2026



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	863	1104	147	166	235
Future Volume (veh/h)	0	863	1104	147	166	235
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1772	1786	1772	1772	1786
Adj Flow Rate, veh/h	0	881	1127	150	169	240
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	1	2	2	1
Cap, veh/h	0	1711	1530	203	1119	517
Arrive On Green	0.00	0.51	0.51	0.51	0.34	0.34
Sat Flow, veh/h	0	3544	3100	400	3274	1514
Grp Volume(v), veh/h	0	881	634	643	169	240
Grp Sat Flow(s),veh/h/ln	0	1683	1697	1714	1637	1514
Q Serve(g_s), s	0.0	10.5	17.6	17.7	2.2	7.4
Cycle Q Clear(g_c), s	0.0	10.5	17.6	17.7	2.2	7.4
Prop In Lane	0.00			0.23	1.00	1.00
Lane Grp Cap(c), veh/h	0	1711	862	871	1119	517
V/C Ratio(X)	0.00	0.51	0.74	0.74	0.15	0.46
Avail Cap(c_a), veh/h	0	1711	862	871	1119	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.8	11.6	11.6	13.7	15.5
Incr Delay (d2), s/veh	0.0	1.1	5.5	5.6	0.3	3.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	1.3	1.3	0.3	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.0	10.9	17.1	17.2	14.0	18.4
LnGrp LOS		B	B	B	B	B
Approach Vol, veh/h		881	1277		409	
Approach Delay, s/veh		10.9	17.1		16.6	
Approach LOS		B	B		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				35.0	25.0	35.0
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				30.5	20.5	30.5
Max Q Clear Time (g_c+I1), s				12.5	9.4	19.7
Green Ext Time (p_c), s				11.7	1.8	9.4
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			14.9			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary

1: Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal 03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵		↵	↵	↵	↵↵	↵	↵↵			↵↵↵	↵
Traffic Volume (veh/h)	0	0	0	237	4	470	2	1126	208	0	1477	386
Future Volume (veh/h)	0	0	0	237	4	470	2	1126	208	0	1477	386
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1772	0	1772	1674	1800	1505	1800	1716	1702	0	1674	1575
Adj Flow Rate, veh/h	0	0	0	252	0	495	2	1185	219	0	1555	406
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2	9	0	21	0	6	7	0	9	16
Cap, veh/h	0	0	0	743	0	593	153	1849	340	0	3073	898
Arrive On Green	0.00	0.00	0.00	0.23	0.00	0.23	0.67	0.67	0.67	0.00	0.67	0.67
Sat Flow, veh/h		0		3188	0	2546	215	2750	505	0	4720	1335
Grp Volume(v), veh/h		0.0		252	0	495	2	699	705	0	1555	406
Grp Sat Flow(s),veh/h/ln				1594	0	1273	215	1630	1625	0	1523	1335
Q Serve(g_s), s				10.5	0.0	29.6	0.7	39.4	40.1	0.0	27.0	22.9
Cycle Q Clear(g_c), s				10.5	0.0	29.6	27.8	39.4	40.1	0.0	27.0	22.9
Prop In Lane				1.00		1.00	1.00		0.31	0.00		1.00
Lane Grp Cap(c), veh/h				743	0	593	153	1096	1093	0	3073	898
V/C Ratio(X)				0.34	0.00	0.83	0.01	0.64	0.64	0.00	0.51	0.45
Avail Cap(c_a), veh/h				1096	0	875	153	1096	1093	0	3073	898
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				51.1	0.0	58.4	19.9	15.0	15.1	0.0	13.0	12.3
Incr Delay (d2), s/veh				0.3	0.0	4.6	0.2	2.8	2.9	0.0	0.6	1.6
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.1	0.0	7.4	0.0	4.8	5.0	0.0	2.7	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				51.4	0.0	63.0	20.0	17.9	18.1	0.0	13.6	14.0
LnGrp LOS				D		E	C	B	B		B	B
Approach Vol, veh/h					747			1406			1961	
Approach Delay, s/veh					59.1			18.0			13.7	
Approach LOS					E			B			B	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		115.1		44.9		115.1						
Change Period (Y+Rc), s		7.5		7.6		7.5						
Max Green Setting (Gmax), s		46.9		55.0		68.4						
Max Q Clear Time (g_c+I1), s		29.0		31.6		42.1						
Green Ext Time (p_c), s		16.7		5.5		22.3						

Intersection Summary

HCM 6th Ctrl Delay, s/veh	23.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 2: Winston Churchill Blvd & Hwy 401 EB Ramp Terminal

03/05/2026



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	TTT	T		TTT	TTT	
Traffic Volume (veh/h)	478	216	1	806	884	730
Future Volume (veh/h)	478	216	1	806	884	730
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1674	1758	1772	1758	1702	1646
Adj Flow Rate, veh/h	503	227	1	848	931	768
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	9	3	2	3	7	11
Cap, veh/h	617	288	23	3296	2188	1019
Arrive On Green	0.19	0.19	0.71	0.71	0.71	0.71
Sat Flow, veh/h	3188	1490	1	4809	3250	1442
Grp Volume(v), veh/h	503	227	319	530	931	768
Grp Sat Flow(s),veh/h/ln	1594	1490	1755	1456	1549	1442
Q Serve(g_s), s	24.2	23.2	0.0	10.4	20.2	53.5
Cycle Q Clear(g_c), s	24.2	23.2	10.4	10.4	20.2	53.5
Prop In Lane	1.00	1.00	0.00			1.00
Lane Grp Cap(c), veh/h	617	288	1262	2057	2188	1019
V/C Ratio(X)	0.82	0.79	0.25	0.26	0.43	0.75
Avail Cap(c_a), veh/h	907	424	1262	2057	2188	1019
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.85	0.85	1.00	1.00
Uniform Delay (d), s/veh	61.8	61.4	8.4	8.4	9.9	14.7
Incr Delay (d2), s/veh	3.7	5.9	0.4	0.3	0.6	5.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	7.2	0.8	0.6	1.3	4.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	65.5	67.3	8.8	8.7	10.5	19.9
LnGrp LOS	E	E	A	A	B	B
Approach Vol, veh/h	730			849	1699	
Approach Delay, s/veh	66.1			8.7	14.7	
Approach LOS	E			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		120.5		39.5		120.5
Change Period (Y+Rc), s		7.5		8.5		7.5
Max Green Setting (Gmax), s		98.5		45.5		98.5
Max Q Clear Time (g_c+I1), s		12.4		26.2		55.5
Green Ext Time (p_c), s		23.0		4.8		37.6
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			24.6			
HCM 6th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

3: Winston Churchill Blvd & Argentic Rd

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	332	213	58	74	96	135	79	1153	95	272	531	177
Future Volume (veh/h)	332	213	58	74	96	135	79	1153	95	272	531	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.98		0.97	1.00		1.00	1.00		0.99
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	1826	1885	1870	1811	1870	1781	1870	1870	1841	1856	1796	1752
Adj Flow Rate, veh/h	349	224	61	78	101	142	83	1214	0	286	559	186
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	1	2	6	2	8	2	2	4	3	7	10
Cap, veh/h	400	1115	550	358	803	476	147	2057		330	2239	850
Arrive On Green	0.12	0.31	0.31	0.05	0.23	0.23	0.04	0.40	0.00	0.19	0.91	0.91
Sat Flow, veh/h	3374	3582	1550	1725	3554	1464	3456	5106	1560	3428	4904	1476
Grp Volume(v), veh/h	349	224	61	78	101	142	83	1214	0	286	559	186
Grp Sat Flow(s),veh/h/ln	1687	1791	1550	1725	1777	1464	1728	1702	1560	1714	1635	1476
Q Serve(g_s), s	16.3	7.3	4.2	5.5	3.6	11.7	3.8	29.8	0.0	12.9	2.1	1.8
Cycle Q Clear(g_c), s	16.3	7.3	4.2	5.5	3.6	11.7	3.8	29.8	0.0	12.9	2.1	1.8
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	400	1115	550	358	803	476	147	2057		330	2239	850
V/C Ratio(X)	0.87	0.20	0.11	0.22	0.13	0.30	0.56	0.59		0.87	0.25	0.22
Avail Cap(c_a), veh/h	464	1397	672	372	1044	575	173	2057		386	2239	850
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.81	0.81	0.81
Uniform Delay (d), s/veh	69.3	40.5	34.7	44.5	49.3	40.7	75.1	37.4	0.0	63.6	3.9	2.4
Incr Delay (d2), s/veh	14.8	0.1	0.1	0.3	0.1	0.3	3.3	1.3	0.0	13.8	0.2	0.5
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	6.2	2.3	1.1	1.7	1.2	3.0	1.4	8.3	0.0	4.6	0.4	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	84.2	40.6	34.8	44.8	49.4	41.1	78.5	38.7	0.0	77.4	4.1	2.9
LnGrp LOS	F	D	C	D	D	D	E	D		E	A	A
Approach Vol, veh/h		634			321			1297			1031	
Approach Delay, s/veh		64.0			44.6			41.2			24.2	
Approach LOS		E			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.8	80.5	24.0	43.6	20.4	72.0	10.3	57.3				
Change Period (Y+Rc), s	5.0	7.5	5.0	7.5	5.0	7.5	3.0	7.5				
Max Green Setting (Gmax), s	3.0	58.0	22.0	47.0	18.0	48.0	8.6	62.4				
Max Q Clear Time (g_c+1.5s), s	1.5	4.1	18.3	13.7	14.9	31.8	7.5	9.3				
Green Ext Time (p_c), s	0.1	14.1	0.7	2.5	0.5	13.1	0.0	4.6				

Intersection Summary

HCM 6th Ctrl Delay, s/veh	40.6
HCM 6th LOS	D

Notes

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

HCM 6th Signalized Intersection Summary

4: Tenth Line W & Argentia Rd

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	313	36	69	146	47	73	29	214	19	9	11
Future Volume (veh/h)	28	313	36	69	146	47	73	29	214	19	9	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	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		No		No
Adj Sat Flow, veh/h/ln	1900	1841	1900	1826	1826	1900	1900	1900	1885	1159	1900	1900
Adj Flow Rate, veh/h	29	326	38	72	152	49	76	30	223	20	9	11
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, %	0	4	0	5	5	0	0	0	1	50	0	0
Cap, veh/h	623	811	706	540	1010	887	422	50	375	183	113	139
Arrive On Green	0.44	0.44	0.44	0.07	0.55	0.55	0.07	0.26	0.26	0.15	0.15	0.15
Sat Flow, veh/h	1195	1841	1601	1739	1826	1603	1810	194	1442	696	776	949
Grp Volume(v), veh/h	29	326	38	72	152	49	76	0	253	20	0	20
Grp Sat Flow(s),veh/h/ln	1195	1841	1601	1739	1826	1603	1810	0	1636	696	0	1725
Q Serve(g_s), s	1.0	9.0	1.0	1.5	3.0	1.1	2.5	0.0	10.1	1.9	0.0	0.8
Cycle Q Clear(g_c), s	1.0	9.0	1.0	1.5	3.0	1.1	2.5	0.0	10.1	3.5	0.0	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.88	1.00		0.55
Lane Grp Cap(c), veh/h	623	811	706	540	1010	887	422	0	426	183	0	252
V/C Ratio(X)	0.05	0.40	0.05	0.13	0.15	0.06	0.18	0.00	0.59	0.11	0.00	0.08
Avail Cap(c_a), veh/h	623	811	706	611	1010	887	493	0	971	388	0	759
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.0	14.3	12.0	9.2	8.2	7.7	22.3	0.0	24.3	29.6	0.0	27.7
Incr Delay (d2), s/veh	0.1	1.5	0.1	0.1	0.3	0.1	0.2	0.0	1.3	0.3	0.0	0.1
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	0.5	0.0	0.0	0.1	0.0	0.4	0.0	1.6	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.2	15.7	12.2	9.3	8.5	7.8	22.5	0.0	25.6	29.8	0.0	27.8
LnGrp LOS	B	B	B	A	A	A	C		C	C		C
Approach Vol, veh/h		393			273			329				40
Approach Delay, s/veh		15.1			8.6			24.9				28.8
Approach LOS		B			A			C				C
Timer - Assigned Phs	1	2		4		6	7	8				
Phs Duration (G+Y+Rc), s	8.4	40.6		26.0		49.0	8.6	17.5				
Change Period (Y+Rc), s	3.0	7.5		6.5		7.5	3.0	6.5				
Max Green Setting (Gmax), s	30.5	30.0		44.5		41.5	8.5	33.0				
Max Q Clear Time (g_c+I), s	13.5	11.0		12.1		5.0	4.5	5.5				
Green Ext Time (p_c), s	0.1	4.9		4.8		2.7	0.1	0.4				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				17.0								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
5: Ninth Line & Argentia Rd

03/05/2026



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	52	30	324	224	97	587
Future Volume (veh/h)	52	30	324	224	97	587
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1796	1796	1870	1870	1870	1856
Adj Flow Rate, veh/h	56	32	348	241	104	631
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	7	7	2	2	2	3
Cap, veh/h	119	106	1342	1137	679	1331
Arrive On Green	0.07	0.07	0.72	0.72	0.72	0.72
Sat Flow, veh/h	1711	1522	1870	1585	827	1856
Grp Volume(v), veh/h	56	32	348	241	104	631
Grp Sat Flow(s),veh/h/ln	1711	1522	1870	1585	827	1856
Q Serve(g_s), s	1.6	1.0	3.3	2.6	2.6	7.5
Cycle Q Clear(g_c), s	1.6	1.0	3.3	2.6	5.9	7.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	119	106	1342	1137	679	1331
V/C Ratio(X)	0.47	0.30	0.26	0.21	0.15	0.47
Avail Cap(c_a), veh/h	597	531	1342	1137	679	1331
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	22.8	2.5	2.4	3.6	3.1
Incr Delay (d2), s/veh	2.9	1.6	0.5	0.4	0.5	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.1	0.2	0.1	0.1	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	26.0	24.4	3.0	2.9	4.0	4.3
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	88		589			735
Approach Delay, s/veh	25.4		2.9			4.3
Approach LOS	C		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		43.5			43.5	8.1
Change Period (Y+Rc), s		6.5			6.5	4.5
Max Green Setting (Gmax), s		37.0			37.0	18.0
Max Q Clear Time (g_c+I1), s		9.5			5.3	3.6
Green Ext Time (p_c), s		13.0			7.8	0.3
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			5.0			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary

6: Ninth Line & Derry Rd E/Derry Rd W

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	714	38	84	391	31	105	257	127	28	336	303
Future Volume (veh/h)	173	714	38	84	391	31	105	257	127	28	336	303
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1870	1811	1811	1885	1900	1841	1841	1856	1900	1856	1841
Adj Flow Rate, veh/h	178	736	39	87	403	32	108	265	131	29	346	312
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, %	3	2	6	6	1	0	4	4	3	0	3	4
Cap, veh/h	573	1816	96	463	1716	136	207	604	516	261	467	393
Arrive On Green	0.12	1.00	1.00	0.04	0.51	0.51	0.06	0.33	0.33	0.25	0.25	0.25
Sat Flow, veh/h	1767	3433	182	1725	3362	266	1753	1841	1572	1004	1856	1560
Grp Volume(v), veh/h	178	381	394	87	214	221	108	265	131	29	346	312
Grp Sat Flow(s),veh/h/ln	1767	1777	1838	1725	1791	1837	1753	1841	1572	1004	1856	1560
Q Serve(g_s), s	7.8	0.0	0.0	3.8	10.6	10.7	7.1	18.1	9.8	3.7	27.4	29.9
Cycle Q Clear(g_c), s	7.8	0.0	0.0	3.8	10.6	10.7	7.1	18.1	9.8	9.6	27.4	29.9
Prop In Lane	1.00		0.10	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	573	940	972	463	914	938	207	604	516	261	467	393
V/C Ratio(X)	0.31	0.41	0.41	0.19	0.23	0.24	0.52	0.44	0.25	0.11	0.74	0.79
Avail Cap(c_a), veh/h	575	940	972	497	914	938	271	909	776	388	702	590
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)	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	0.0	0.0	16.8	21.8	21.8	42.4	42.2	39.4	50.7	55.1	56.0
Incr Delay (d2), s/veh	0.3	1.2	1.1	0.2	0.6	0.6	2.0	0.5	0.3	0.2	2.3	4.4
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	4	0.3	0.3	0.8	2.7	2.8	2.3	5.8	2.7	0.7	9.7	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.3	1.2	1.1	17.0	22.4	22.4	44.4	42.7	39.6	50.9	57.4	60.4
LnGrp LOS	B	A	A	B	C	C	D	D	D	D	E	E
Approach Vol, veh/h		953			522			504			687	
Approach Delay, s/veh		3.8			21.5			42.3			58.5	
Approach LOS		A			C			D			E	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	91.1		59.0	12.9	88.1	12.2	46.8				
Change Period (Y+Rc), s	3.0	6.5		* 6.5	3.0	6.5	3.0	6.5				
Max Green Setting (Gmax), s	10.0	55.5		* 79	10.0	55.5	15.0	60.5				
Max Q Clear Time (g_c+15), s	15.0	2.0		20.1	9.8	12.7	9.1	31.9				
Green Ext Time (p_c), s	0.1	18.1		5.9	0.0	8.2	0.2	8.3				

Intersection Summary

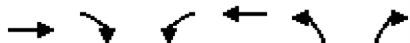
HCM 6th Ctrl Delay, s/veh	28.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
 7: Hwy 407 NB Ramp Terminal & Derry Rd E

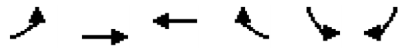
03/05/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	↑
Traffic Volume (veh/h)	832	200	2	668	9	110
Future Volume (veh/h)	832	200	2	668	9	110
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1758	1477	1758
Adj Flow Rate, veh/h	858	206	2	689	9	113
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	3	23	3
Cap, veh/h	1481	355	46	1800	870	475
Arrive On Green	0.55	0.55	0.55	0.55	0.32	0.32
Sat Flow, veh/h	2781	646	1	3353	2729	1490
Grp Volume(v), veh/h	536	528	370	321	9	113
Grp Sat Flow(s),veh/h/ln	1683	1656	1755	1520	1365	1490
Q Serve(g_s), s	16.8	16.8	0.0	9.6	0.2	4.5
Cycle Q Clear(g_c), s	16.8	16.8	9.6	9.6	0.2	4.5
Prop In Lane		0.39	0.01		1.00	1.00
Lane Grp Cap(c), veh/h	926	911	1010	836	870	475
V/C Ratio(X)	0.58	0.58	0.37	0.38	0.01	0.24
Avail Cap(c_a), veh/h	926	911	1010	836	870	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.94	0.94	1.00	1.00
Uniform Delay (d), s/veh	11.9	11.9	10.3	10.3	18.6	20.1
Incr Delay (d2), s/veh	2.6	2.7	1.0	1.3	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.7	0.3	0.3	0.0	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	14.5	14.6	11.2	11.5	18.6	21.3
LnGrp LOS	B	B	B	B	B	C
Approach Vol, veh/h	1064			691	122	
Approach Delay, s/veh	14.6			11.4	21.1	
Approach LOS	B			B	C	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		30.0		50.0		50.0
Change Period (Y+Rc), s		4.5		6.0		6.0
Max Green Setting (Gmax), s		25.5		44.0		44.0
Max Q Clear Time (g_c+1), s		6.5		18.8		11.6
Green Ext Time (p_c), s		0.6		17.3		12.8
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			13.8			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 8: Derry Rd E & Hwy 407 SB Ramp Terminal

03/05/2026



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	1011	528	145	27	52
Future Volume (veh/h)	0	1011	528	145	27	52
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1772	1758	1758	1688	1575
Adj Flow Rate, veh/h	0	1064	556	153	28	55
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	3	3	8	16
Cap, veh/h	0	2041	1570	431	877	375
Arrive On Green	0.00	0.61	0.61	0.61	0.28	0.28
Sat Flow, veh/h	0	3544	2678	710	3118	1335
Grp Volume(v), veh/h	0	1064	358	351	28	55
Grp Sat Flow(s),veh/h/ln	0	1683	1670	1630	1559	1335
Q Serve(g_s), s	0.0	14.6	8.6	8.6	0.5	2.5
Cycle Q Clear(g_c), s	0.0	14.6	8.6	8.6	0.5	2.5
Prop In Lane	0.00			0.44	1.00	1.00
Lane Grp Cap(c), veh/h	0	2041	1012	988	877	375
V/C Ratio(X)	0.00	0.52	0.35	0.36	0.03	0.15
Avail Cap(c_a), veh/h	0	2041	1012	988	877	375
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.1	7.9	7.9	20.9	21.6
Incr Delay (d2), s/veh	0.0	1.0	1.0	1.0	0.1	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.3	0.3	0.1	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.0	10.0	8.9	8.9	20.9	22.4
LnGrp LOS		B	A	A	C	C
Approach Vol, veh/h		1064	709		83	
Approach Delay, s/veh		10.0	8.9		21.9	
Approach LOS		B	A		C	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				53.0	27.0	53.0
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				48.5	22.5	48.5
Max Q Clear Time (g_c+I1), s				16.6	4.5	10.6
Green Ext Time (p_c), s				20.9	0.3	14.4
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			10.1			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	6.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			Y	Y	
Traffic Vol, veh/h	0	23	75	13	10	0
Future Vol, veh/h	0	23	75	13	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	25	82	14	11	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	189	11	11	0	0
Stage 1	11	-	-	-	-
Stage 2	178	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	800	1070	1608	-	-
Stage 1	1012	-	-	-	-
Stage 2	853	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	759	1070	1608	-	-
Mov Cap-2 Maneuver	759	-	-	-	-
Stage 1	960	-	-	-	-
Stage 2	853	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.4	6.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1608	-	1070	-	-
HCM Lane V/C Ratio	0.051	-	0.023	-	-
HCM Ctrl Dly (s/v)	7.4	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0.2	-	0.1	-	-

Intersection						
Int Delay, s/veh	7.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			Y	Y	
Traffic Vol, veh/h	0	10	13	0	0	0
Future Vol, veh/h	0	10	13	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	14	0	0	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	29	1	1	0	0
Stage 1	1	-	-	-	-
Stage 2	28	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	986	1084	1622	-	-
Stage 1	1022	-	-	-	-
Stage 2	995	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	977	1084	1622	-	-
Mov Cap-2 Maneuver	977	-	-	-	-
Stage 1	1013	-	-	-	-
Stage 2	995	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.4	7.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.009	-	0.01	-	-
HCM Ctrl Dly (s/v)	7.2	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0	-	0	-	-

HCM 6th Signalized Intersection Summary

1: Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal 03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗		↖	↖	↖	↖↖	↖	↕↕			↕↕↕	↖
Traffic Volume (veh/h)	7	0	18	809	12	755	5	1093	231	0	1398	434
Future Volume (veh/h)	7	0	18	809	12	755	5	1093	231	0	1398	434
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1800	0	1800	1786	1800	1660	1800	1702	1772	0	1702	1688
Adj Flow Rate, veh/h	7	0	19	852	0	786	5	1139	241	0	1456	452
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, %	0	0	0	1	0	10	0	7	2	0	7	8
Cap, veh/h	0	0	0	1051	0	869	190	1587	334	0	2772	853
Arrive On Green	0.00	0.00	0.00	0.31	0.00	0.31	0.60	0.60	0.60	0.00	0.60	0.60
Sat Flow, veh/h		0		3402	0	2813	351	2659	559	0	4799	1430
Grp Volume(v), veh/h		0.0		852	0	786	5	690	690	0	1456	452
Grp Sat Flow(s),veh/h/ln				1701	0	1406	351	1617	1601	0	1549	1430
Q Serve(g_s), s				36.9	0.0	42.9	1.4	48.0	48.9	0.0	29.5	29.8
Cycle Q Clear(g_c), s				36.9	0.0	42.9	30.8	48.0	48.9	0.0	29.5	29.8
Prop In Lane				1.00		1.00	1.00		0.35	0.00		1.00
Lane Grp Cap(c), veh/h				1051	0	869	190	965	955	0	2772	853
V/C Ratio(X)				0.81	0.00	0.90	0.03	0.71	0.72	0.00	0.53	0.53
Avail Cap(c_a), veh/h				1080	0	893	190	965	955	0	2772	853
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				51.0	0.0	53.0	28.0	22.7	22.9	0.0	18.9	19.0
Incr Delay (d2), s/veh				4.7	0.0	12.4	0.3	4.5	4.7	0.0	0.7	2.3
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				11.7	0.0	12.1	0.1	9.2	9.3	0.0	4.9	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				55.6	0.0	65.4	28.3	27.2	27.6	0.0	19.7	21.4
LnGrp LOS				E		E	C	C	C		B	C
Approach Vol, veh/h					1638			1385			1908	
Approach Delay, s/veh					60.3			27.4			20.1	
Approach LOS					E			C			C	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		103.0		57.0		103.0						
Change Period (Y+Rc), s		7.5		7.6		7.5						
Max Green Setting (Gmax), s		48.7		50.8		48.7						
Max Q Clear Time (g_c+I1), s		31.8		44.9		50.9						
Green Ext Time (p_c), s		15.6		4.5		0.0						

Intersection Summary

HCM 6th Ctrl Delay, s/veh	35.5
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 2: Winston Churchill Blvd & Hwy 401 EB Ramp Terminal

03/05/2026



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	340	330	5	938	1712	572
Future Volume (veh/h)	340	330	5	938	1712	572
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1617	1744	1772	1744	1772	1603
Adj Flow Rate, veh/h	468	238	5	998	1821	609
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	13	4	2	4	2	14
Cap, veh/h	584	280	27	3231	2579	823
Arrive On Green	0.19	0.19	0.71	0.71	0.71	0.71
Sat Flow, veh/h	3081	1478	6	4691	3790	1158
Grp Volume(v), veh/h	468	238	368	635	1608	822
Grp Sat Flow(s),veh/h/ln	1540	1478	1667	1444	1612	1563
Q Serve(g_s), s	23.2	24.9	0.0	13.1	46.1	51.4
Cycle Q Clear(g_c), s	23.2	24.9	12.4	13.1	46.1	51.4
Prop In Lane	1.00	1.00	0.01			0.74
Lane Grp Cap(c), veh/h	584	280	1207	2052	2291	1111
V/C Ratio(X)	0.80	0.85	0.30	0.31	0.70	0.74
Avail Cap(c_a), veh/h	722	346	1207	2052	2291	1111
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.85	0.85	1.00	1.00
Uniform Delay (d), s/veh	61.9	62.6	8.5	8.6	13.4	14.2
Incr Delay (d2), s/veh	5.2	15.1	0.6	0.3	1.8	4.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	8.4	0.9	0.7	3.1	4.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	67.2	77.7	9.1	8.9	15.2	18.6
LnGrp LOS	E	E	A	A	B	B
Approach Vol, veh/h	706			1003	2430	
Approach Delay, s/veh	70.7			9.0	16.4	
Approach LOS	E			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		121.2		38.8		121.2
Change Period (Y+Rc), s		7.5		8.5		7.5
Max Green Setting (Gmax), s		106.5		37.5		106.5
Max Q Clear Time (g_c+I1), s		15.1		26.9		53.4
Green Ext Time (p_c), s		31.4		3.5		51.6
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			23.8			
HCM 6th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

3: Winston Churchill Blvd & Argentia Rd

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↖	↑↑	↗	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗
Traffic Volume (veh/h)	354	294	202	268	509	284	221	736	94	229	1204	358
Future Volume (veh/h)	354	294	202	268	509	284	221	736	94	229	1204	358
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.97		0.96	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	1841	1870	1885	1885	1870	1856	1885	1826	1870	1841	1870	1856
Adj Flow Rate, veh/h	358	297	204	271	514	287	223	743	0	231	1216	362
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	2	1	1	2	3	1	5	2	4	2	3
Cap, veh/h	415	1112	605	497	1002	553	270	1785		277	1848	758
Arrive On Green	0.12	0.31	0.31	0.10	0.28	0.28	0.08	0.36	0.00	0.16	0.72	0.72
Sat Flow, veh/h	3401	3554	1536	1795	3554	1506	3483	4985	1585	3401	5106	1565
Grp Volume(v), veh/h	358	297	204	271	514	287	223	743	0	231	1216	362
Grp Sat Flow(s),veh/h/ln1700	1777	1536	1795	1777	1506	1742	1662	1585	1700	1702	1565	
Q Serve(g_s), s	16.5	10.0	14.9	16.6	19.4	24.0	10.1	18.0	0.0	10.5	20.1	15.4
Cycle Q Clear(g_c), s	16.5	10.0	14.9	16.6	19.4	24.0	10.1	18.0	0.0	10.5	20.1	15.4
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	415	1112	605	497	1002	553	270	1785		277	1848	758
V/C Ratio(X)	0.86	0.27	0.34	0.55	0.51	0.52	0.83	0.42		0.83	0.66	0.48
Avail Cap(c_a), veh/h	510	1253	666	497	1044	570	327	1785		361	1848	758
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.58	0.58	0.58
Uniform Delay (d), s/veh	68.9	41.2	34.3	35.9	48.2	40.0	72.7	38.7	0.0	65.9	16.9	10.9
Incr Delay (d2), s/veh	12.1	0.1	0.3	1.2	0.4	0.8	13.5	0.7	0.0	7.5	1.1	1.3
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	6.2	3.1	3.8	5.3	6.3	6.1	4.0	5.1	0.0	3.6	3.5	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	81.0	41.3	34.6	37.1	48.6	40.8	86.2	39.4	0.0	73.4	17.9	12.2
LnGrp LOS	F	D	C	D	D	D	F	D		E	B	B
Approach Vol, veh/h		859			1072			966			1809	
Approach Delay, s/veh		56.3			43.6			50.2			23.9	
Approach LOS		E			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.4	65.4	24.5	52.6	18.0	64.8	19.6	57.6				
Change Period (Y+Rc), s	5.0	7.5	5.0	7.5	5.0	7.5	3.0	7.5				
Max Green Setting (Gmax), s	15.0	49.0	24.0	47.0	17.0	47.0	16.6	56.4				
Max Q Clear Time (g_c+1/2, s)	11.2	22.1	18.5	26.0	12.5	20.0	18.6	16.9				
Green Ext Time (p_c), s	0.3	21.6	1.0	9.6	0.5	13.0	0.0	7.0				

Intersection Summary

HCM 6th Ctrl Delay, s/veh	39.7
HCM 6th LOS	D

Notes

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

HCM 6th Signalized Intersection Summary

4: Tenth Line W & Argentia Rd

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	298	96	451	457	22	61	7	281	39	21	34
Future Volume (veh/h)	11	298	96	451	457	22	61	7	281	39	21	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.99	0.99		0.99	0.99		0.99
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	418	1826	1870	1900	1856	1604	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	320	103	485	491	24	66	8	302	42	23	37
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	100	5	2	0	3	20	0	0	0	0	0	0
Cap, veh/h	162	697	596	531	980	709	428	12	459	226	122	196
Arrive On Green	0.38	0.38	0.38	0.11	0.53	0.53	0.07	0.29	0.29	0.19	0.19	0.19
Sat Flow, veh/h	196	1826	1560	1810	1856	1344	1810	41	1562	1079	650	1046
Grp Volume(v), veh/h	12	320	103	485	491	24	66	0	310	42	0	60
Grp Sat Flow(s),veh/h/ln	196	1826	1560	1810	1856	1344	1810	0	1604	1079	0	1696
Q Serve(g_s), s	3.3	10.3	3.4	8.5	13.3	0.7	2.1	0.0	13.3	2.8	0.0	2.3
Cycle Q Clear(g_c), s	5.1	10.3	3.4	8.5	13.3	0.7	2.1	0.0	13.3	7.7	0.0	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.62
Lane Grp Cap(c), veh/h	162	697	596	531	980	709	428	0	471	226	0	318
V/C Ratio(X)	0.07	0.46	0.17	0.91	0.50	0.03	0.15	0.00	0.66	0.19	0.00	0.19
Avail Cap(c_a), veh/h	162	697	596	531	980	709	501	0	908	477	0	712
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.2	18.2	16.1	19.7	11.9	8.9	21.2	0.0	24.3	31.3	0.0	26.9
Incr Delay (d2), s/veh	0.9	2.2	0.6	20.3	1.8	0.1	0.2	0.0	1.6	0.4	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	1.3	0.3	3.0	0.5	0.0	0.4	0.0	2.1	0.4	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.1	20.4	16.7	40.0	13.7	9.0	21.4	0.0	25.9	31.7	0.0	27.2
LnGrp LOS	B	C	B	D	B	A	C		C	C		C
Approach Vol, veh/h		435			1000			376			102	
Approach Delay, s/veh		19.5			26.4			25.1			29.0	
Approach LOS		B			C			C			C	
Timer - Assigned Phs	1	2		4		6	7	8				
Phs Duration (G+Y+Rc), s	1.5	37.5		29.6		49.0	8.3	21.2				
Change Period (Y+Rc), s	3.0	7.5		6.5		7.5	3.0	6.5				
Max Green Setting (Gmax), s	3.5	30.0		44.5		41.5	8.5	33.0				
Max Q Clear Time (g_c+110), s	11.0	12.3		15.3		15.3	4.1	9.7				
Green Ext Time (p_c), s	0.0	5.3		5.9		8.7	0.1	1.0				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				24.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 5: Ninth Line & Argentia Rd

03/05/2026



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	275	205	734	134	75	545
Future Volume (veh/h)	275	205	734	134	75	545
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1856	1811	1870
Adj Flow Rate, veh/h	286	214	765	140	78	568
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	3	6	2
Cap, veh/h	376	335	1148	958	323	1139
Arrive On Green	0.21	0.21	0.61	0.61	0.61	0.61
Sat Flow, veh/h	1795	1598	1885	1572	596	1870
Grp Volume(v), veh/h	286	214	765	140	78	568
Grp Sat Flow(s),veh/h/ln	1795	1598	1885	1572	596	1870
Q Serve(g_s), s	9.1	7.4	16.2	2.3	6.0	10.4
Cycle Q Clear(g_c), s	9.1	7.4	16.2	2.3	22.2	10.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	376	335	1148	958	323	1139
V/C Ratio(X)	0.76	0.64	0.67	0.15	0.24	0.50
Avail Cap(c_a), veh/h	532	473	1148	958	323	1139
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.6	21.9	7.8	5.1	15.1	6.7
Incr Delay (d2), s/veh	4.0	2.0	3.1	0.3	1.8	1.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.7	1.0	0.1	0.2	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	26.6	23.9	10.9	5.4	16.9	8.2
LnGrp LOS	C	C	B	A	B	A
Approach Vol, veh/h	500		905			646
Approach Delay, s/veh	25.4		10.0			9.3
Approach LOS	C		B			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		43.5			43.5	17.2
Change Period (Y+Rc), s		6.5			6.5	4.5
Max Green Setting (Gmax), s		37.0			37.0	18.0
Max Q Clear Time (g_c+I1), s		24.2			18.2	11.1
Green Ext Time (p_c), s		7.0			12.1	1.6
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			13.5			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 6: Ninth Line & Derry Rd E/Derry Rd W

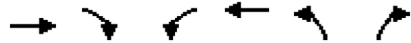
03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	259	650	130	164	917	57	80	522	144	61	395	260
Future Volume (veh/h)	259	650	130	164	917	57	80	522	144	61	395	260
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1885	1885	1900	1885	1885	1870	1841	1885	1870	1900	1885	1870
Adj Flow Rate, veh/h	276	691	138	174	976	61	85	555	153	65	420	277
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	0	1	1	2	4	1	2	0	1	2
Cap, veh/h	349	1421	284	383	1528	96	188	665	559	107	542	455
Arrive On Green	0.10	0.48	0.48	0.07	0.45	0.45	0.05	0.35	0.35	0.29	0.29	0.29
Sat Flow, veh/h	1795	2975	594	1795	3423	214	1753	1885	1584	752	1885	1583
Grp Volume(v), veh/h	276	416	413	174	511	526	85	555	153	65	420	277
Grp Sat Flow(s),veh/h/ln	1795	1791	1778	1795	1791	1846	1753	1885	1584	752	1885	1583
Q Serve(g_s), s	12.8	25.3	25.3	8.3	35.3	35.3	5.3	43.2	11.1	13.3	32.7	24.2
Cycle Q Clear(g_c), s	12.8	25.3	25.3	8.3	35.3	35.3	5.3	43.2	11.1	46.0	32.7	24.2
Prop In Lane	1.00		0.33	1.00		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	349	855	849	383	800	824	188	665	559	107	542	455
V/C Ratio(X)	0.79	0.49	0.49	0.45	0.64	0.64	0.45	0.83	0.27	0.61	0.78	0.61
Avail Cap(c_a), veh/h	511	855	849	600	800	824	440	866	728	107	542	455
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.1	28.4	28.4	22.5	34.3	34.3	40.1	47.5	37.1	73.6	52.3	49.3
Incr Delay (d2), s/veh	4.5	1.7	1.8	0.8	3.9	3.8	1.7	5.5	0.3	9.3	7.0	2.4
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	8.1	6.9	6.8	2.1	10.4	10.7	1.7	14.8	3.0	2.4	12.1	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.6	30.2	30.2	23.3	38.2	38.1	41.8	53.0	37.3	82.9	59.3	51.6
LnGrp LOS	C	C	C	C	D	D	D	D	D	F	E	D
Approach Vol, veh/h		1105			1211			793			762	
Approach Delay, s/veh		30.5			36.0			48.8			58.5	
Approach LOS		C			D			D			E	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	41.1	82.9		63.0	19.1	77.9	10.5	52.5				
Change Period (Y+Rc), s	3.0	6.5		6.5	3.0	6.5	3.0	6.5				
Max Green Setting (Gmax), s	30.5	40.0		73.5	30.5	40.0	30.5	40.0				
Max Q Clear Time (g_c+110), s	110.3	27.3		45.2	14.8	37.3	7.3	48.0				
Green Ext Time (p_c), s	0.8	8.3		11.3	1.3	2.3	0.4	0.0				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh											41.5	
HCM 6th LOS											D	

HCM 6th Signalized Intersection Summary
 7: Hwy 407 NB Ramp Terminal & Derry Rd E

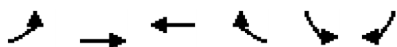
03/05/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	↑
Traffic Volume (veh/h)	924	70	2	1202	40	147
Future Volume (veh/h)	924	70	2	1202	40	147
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1786	1688	1688	1786	1688	1772
Adj Flow Rate, veh/h	943	71	2	1227	41	150
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	8	8	1	8	2
Cap, veh/h	1493	112	61	1553	1039	501
Arrive On Green	0.47	0.47	0.47	0.47	0.33	0.33
Sat Flow, veh/h	3288	241	1	3409	3118	1502
Grp Volume(v), veh/h	500	514	659	570	41	150
Grp Sat Flow(s),veh/h/ln	1697	1743	1784	1544	1559	1502
Q Serve(g_s), s	13.4	13.4	0.0	18.7	0.5	4.4
Cycle Q Clear(g_c), s	13.4	13.4	18.7	18.7	0.5	4.4
Prop In Lane		0.14	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	792	813	893	721	1039	501
V/C Ratio(X)	0.63	0.63	0.74	0.79	0.04	0.30
Avail Cap(c_a), veh/h	792	813	893	721	1039	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.73	0.73	1.00	1.00
Uniform Delay (d), s/veh	12.1	12.1	13.5	13.5	13.5	14.8
Incr Delay (d2), s/veh	3.8	3.7	4.0	6.5	0.1	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.8	1.0	1.3	0.0	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	15.9	15.8	17.5	20.0	13.6	16.3
LnGrp LOS	B	B	B	B	B	B
Approach Vol, veh/h	1014			1229	191	
Approach Delay, s/veh	15.9			18.7	15.8	
Approach LOS	B			B	B	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		26.0		34.0		34.0
Change Period (Y+Rc), s		6.0		6.0		6.0
Max Green Setting (Gmax), s		20.0		28.0		28.0
Max Q Clear Time (g_c+I1), s		6.4		15.4		20.7
Green Ext Time (p_c), s		0.8		9.5		6.5
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			17.3			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 8: Derry Rd E & Hwy 407 SB Ramp Terminal

03/05/2026



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	841	1076	148	166	235
Future Volume (veh/h)	0	841	1076	148	166	235
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1772	1786	1772	1772	1786
Adj Flow Rate, veh/h	0	858	1098	151	169	240
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	1	2	2	1
Cap, veh/h	0	1711	1524	209	1119	517
Arrive On Green	0.00	0.51	0.51	0.51	0.34	0.34
Sat Flow, veh/h	0	3544	3086	411	3274	1514
Grp Volume(v), veh/h	0	858	621	628	169	240
Grp Sat Flow(s),veh/h/ln	0	1683	1697	1712	1637	1514
Q Serve(g_s), s	0.0	10.1	17.0	17.1	2.2	7.4
Cycle Q Clear(g_c), s	0.0	10.1	17.0	17.1	2.2	7.4
Prop In Lane	0.00			0.24	1.00	1.00
Lane Grp Cap(c), veh/h	0	1711	862	870	1119	517
V/C Ratio(X)	0.00	0.50	0.72	0.72	0.15	0.46
Avail Cap(c_a), veh/h	0	1711	862	870	1119	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.7	11.4	11.5	13.7	15.5
Incr Delay (d2), s/veh	0.0	1.1	5.1	5.2	0.3	3.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	1.2	1.2	0.0	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.0	10.8	16.6	16.6	14.0	18.4
LnGrp LOS		B	B	B	B	B
Approach Vol, veh/h		858	1249		409	
Approach Delay, s/veh		10.8	16.6		16.6	
Approach LOS		B	B		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				35.0	25.0	35.0
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				30.5	20.5	30.5
Max Q Clear Time (g_c+I1), s				12.1	9.4	19.1
Green Ext Time (p_c), s				11.6	1.8	9.8
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			14.6			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	6.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	73	28	6	13	0
Future Vol, veh/h	0	73	28	6	13	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	79	30	7	14	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	81	14	14	0	0
Stage 1	14	-	-	-	-
Stage 2	67	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	921	1066	1604	-	-
Stage 1	1009	-	-	-	-
Stage 2	956	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	904	1066	1604	-	-
Mov Cap-2 Maneuver	904	-	-	-	-
Stage 1	990	-	-	-	-
Stage 2	956	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.6	6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1604	-	1066	-	-
HCM Lane V/C Ratio	0.019	-	0.074	-	-
HCM Ctrl Dly (s/v)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0.1	-	0.2	-	-

Intersection						
Int Delay, s/veh	7.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			Y	Y	
Traffic Vol, veh/h	13	0	6	0	0	0
Future Vol, veh/h	13	0	6	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	0	7	0	0	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	15	1	1	0	0
Stage 1	1	-	-	-	-
Stage 2	14	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	1004	1084	1622	-	-
Stage 1	1022	-	-	-	-
Stage 2	1009	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	1000	1084	1622	-	-
Mov Cap-2 Maneuver	1000	-	-	-	-
Stage 1	1018	-	-	-	-
Stage 2	1009	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.7	7.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1000	-	-
HCM Lane V/C Ratio	0.004	-	0.014	-	-
HCM Ctrl Dly (s/v)	7.2	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0	-	0	-	-

HCM 6th Signalized Intersection Summary

1: Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal 03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘		↗	↘	↖	↗↗	↘	↕↕			↕↕↕	↗
Traffic Volume (veh/h)	0	0	0	237	5	470	2	1184	208	0	1553	386
Future Volume (veh/h)	0	0	0	237	5	470	2	1184	208	0	1553	386
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1772	0	1772	1674	1800	1505	1800	1716	1702	0	1674	1575
Adj Flow Rate, veh/h	0	0	0	253	0	495	2	1246	219	0	1635	406
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2	9	0	21	0	6	7	0	9	16
Cap, veh/h	0	0	0	743	0	593	143	1866	325	0	3073	898
Arrive On Green	0.00	0.00	0.00	0.23	0.00	0.23	0.67	0.67	0.67	0.00	0.67	0.67
Sat Flow, veh/h		0		3188	0	2546	199	2775	484	0	4720	1335
Grp Volume(v), veh/h		0.0		253	0	495	2	728	737	0	1635	406
Grp Sat Flow(s),veh/h/ln				1594	0	1273	199	1630	1629	0	1523	1335
Q Serve(g_s), s				10.6	0.0	29.6	0.8	42.3	43.3	0.0	29.2	22.9
Cycle Q Clear(g_c), s				10.6	0.0	29.6	30.0	42.3	43.3	0.0	29.2	22.9
Prop In Lane				1.00		1.00	1.00		0.30	0.00		1.00
Lane Grp Cap(c), veh/h				743	0	593	143	1096	1095	0	3073	898
V/C Ratio(X)				0.34	0.00	0.83	0.01	0.66	0.67	0.00	0.53	0.45
Avail Cap(c_a), veh/h				1096	0	875	143	1096	1095	0	3073	898
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				51.1	0.0	58.4	21.0	15.5	15.7	0.0	13.4	12.3
Incr Delay (d2), s/veh				0.3	0.0	4.6	0.2	3.2	3.3	0.0	0.7	1.6
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.5	0.0	8.2	0.0	8.8	9.0	0.0	5.2	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				51.4	0.0	63.0	21.2	18.7	19.0	0.0	14.0	14.0
LnGrp LOS				D		E	C	B	B		B	B
Approach Vol, veh/h					748			1467			2041	
Approach Delay, s/veh					59.1			18.8			14.0	
Approach LOS					E			B			B	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		115.1		44.9		115.1						
Change Period (Y+Rc), s		7.5		7.6		7.5						
Max Green Setting (Gmax), s		46.9		55.0		68.4						
Max Q Clear Time (g_c+I1), s		31.2		31.6		45.3						
Green Ext Time (p_c), s		14.9		5.5		20.3						
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				23.6								
HCM 6th LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary
 2: Winston Churchill Blvd & Hwy 401 EB Ramp Terminal

03/05/2026



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	478	216	1	847	929	730
Future Volume (veh/h)	478	216	1	847	929	730
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1674	1758	1772	1758	1702	1646
Adj Flow Rate, veh/h	503	227	1	892	978	768
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	9	3	2	3	7	11
Cap, veh/h	620	290	23	3292	2185	1018
Arrive On Green	0.19	0.19	0.71	0.71	0.71	0.71
Sat Flow, veh/h	3188	1490	1	4809	3250	1442
Grp Volume(v), veh/h	503	227	336	557	978	768
Grp Sat Flow(s),veh/h/ln	1594	1490	1755	1456	1549	1442
Q Serve(g_s), s	24.1	23.2	0.0	11.1	21.7	53.7
Cycle Q Clear(g_c), s	24.1	23.2	11.1	11.1	21.7	53.7
Prop In Lane	1.00	1.00	0.00			1.00
Lane Grp Cap(c), veh/h	620	290	1261	2054	2185	1018
V/C Ratio(X)	0.81	0.78	0.27	0.27	0.45	0.75
Avail Cap(c_a), veh/h	946	442	1261	2054	2185	1018
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.83	0.83	1.00	1.00
Uniform Delay (d), s/veh	61.6	61.3	8.6	8.6	10.1	14.8
Incr Delay (d2), s/veh	3.2	5.1	0.4	0.3	0.7	5.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	7.9	2.0	1.6	3.4	8.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	64.8	66.3	9.0	8.8	10.8	20.0
LnGrp LOS	E	E	A	A	B	C
Approach Vol, veh/h	730			893	1746	
Approach Delay, s/veh	65.3			8.9	14.9	
Approach LOS	E			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		120.4		39.6		120.4
Change Period (Y+Rc), s		7.5		8.5		7.5
Max Green Setting (Gmax), s		96.5		47.5		96.5
Max Q Clear Time (g_c+I1), s		13.1		26.1		55.7
Green Ext Time (p_c), s		24.7		5.0		36.4
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			24.2			
HCM 6th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

3: Winston Churchill Blvd & Argentic Rd

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	332	241	58	74	108	135	79	1212	95	272	559	177
Future Volume (veh/h)	332	241	58	74	108	135	79	1212	95	272	559	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.98		0.97	1.00		1.00	1.00		0.99
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	1826	1885	1870	1811	1870	1781	1870	1870	1841	1856	1796	1752
Adj Flow Rate, veh/h	349	254	61	78	114	142	83	1276	0	286	588	186
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	1	2	6	2	8	2	2	4	3	7	10
Cap, veh/h	400	1117	551	352	804	477	147	2055		330	2236	849
Arrive On Green	0.12	0.31	0.31	0.05	0.23	0.23	0.04	0.40	0.00	0.19	0.91	0.91
Sat Flow, veh/h	3374	3582	1550	1725	3554	1464	3456	5106	1560	3428	4904	1476
Grp Volume(v), veh/h	349	254	61	78	114	142	83	1276	0	286	588	186
Grp Sat Flow(s),veh/h/ln	1687	1791	1550	1725	1777	1464	1728	1702	1560	1714	1635	1476
Q Serve(g_s), s	16.3	8.4	4.2	5.5	4.1	11.6	3.8	31.9	0.0	12.9	2.2	1.9
Cycle Q Clear(g_c), s	16.3	8.4	4.2	5.5	4.1	11.6	3.8	31.9	0.0	12.9	2.2	1.9
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	400	1117	551	352	804	477	147	2055		330	2236	849
V/C Ratio(X)	0.87	0.23	0.11	0.22	0.14	0.30	0.56	0.62		0.87	0.26	0.22
Avail Cap(c_a), veh/h	464	1397	672	366	1044	575	173	2055		386	2236	849
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.80	0.80	0.80
Uniform Delay (d), s/veh	69.3	40.8	34.7	44.4	49.5	40.6	75.1	38.1	0.0	63.6	3.9	2.4
Incr Delay (d2), s/veh	14.8	0.1	0.1	0.3	0.1	0.3	3.3	1.4	0.0	13.7	0.2	0.5
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	6.8	3.0	1.3	2.0	1.5	3.4	1.5	10.4	0.0	5.0	0.6	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	84.2	40.9	34.8	44.7	49.5	41.0	78.5	39.5	0.0	77.3	4.2	2.9
LnGrp LOS	F	D	C	D	D	D	E	D		E	A	A
Approach Vol, veh/h		664			334			1359			1060	
Approach Delay, s/veh		63.1			44.8			41.9			23.7	
Approach LOS		E			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.8	80.5	24.0	43.7	20.4	71.9	10.3	57.4				
Change Period (Y+Rc), s	5.0	7.5	5.0	7.5	5.0	7.5	3.0	7.5				
Max Green Setting (Gmax), s	3.0	58.0	22.0	47.0	18.0	48.0	8.6	62.4				
Max Q Clear Time (g_c+1.5s), s	15.8	4.2	18.3	13.6	14.9	33.9	7.5	10.4				
Green Ext Time (p_c), s	0.1	15.0	0.7	2.8	0.5	11.9	0.0	5.3				

Intersection Summary























HCM 6th Ctrl Delay, s/veh	40.6
HCM 6th LOS	D

Notes

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

HCM 6th Signalized Intersection Summary
 4: Tenth Line W & Argentia Rd

Future Total 2037 AM
 03/09/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	367	40	69	197	16	95	8	214	7	6	4
Future Volume (veh/h)	6	367	40	69	197	16	95	8	214	7	6	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	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	1900	1841	1900	1826	1826	1900	1900	1900	1885	1159	1900	1900
Adj Flow Rate, veh/h	6	382	42	72	205	17	99	8	223	7	6	4
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, %	0	4	0	5	5	0	0	0	1	50	0	0
Cap, veh/h	608	805	700	493	1002	880	441	15	414	197	154	103
Arrive On Green	0.44	0.44	0.44	0.07	0.55	0.55	0.08	0.27	0.27	0.15	0.15	0.15
Sat Flow, veh/h	1172	1841	1601	1739	1826	1603	1810	56	1559	710	1061	708
Grp Volume(v), veh/h	6	382	42	72	205	17	99	0	231	7	0	10
Grp Sat Flow(s),veh/h/ln	1172	1841	1601	1739	1826	1603	1810	0	1615	710	0	1769
Q Serve(g_s), s	0.2	11.1	1.1	1.5	4.3	0.4	3.3	0.0	9.3	0.6	0.0	0.4
Cycle Q Clear(g_c), s	0.2	11.1	1.1	1.5	4.3	0.4	3.3	0.0	9.3	0.8	0.0	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.40
Lane Grp Cap(c), veh/h	608	805	700	493	1002	880	441	0	429	197	0	257
V/C Ratio(X)	0.01	0.47	0.06	0.15	0.20	0.02	0.22	0.00	0.54	0.04	0.00	0.04
Avail Cap(c_a), veh/h	608	805	700	563	1002	880	498	0	951	404	0	772
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.0	15.1	12.3	9.7	8.7	7.8	22.4	0.0	23.8	28.0	0.0	27.8
Incr Delay (d2), s/veh	0.0	2.0	0.2	0.1	0.5	0.0	0.3	0.0	1.1	0.1	0.0	0.1
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	2.0	0.2	0.1	0.3	0.0	0.8	0.0	2.1	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.1	17.1	12.5	9.9	9.1	7.8	22.6	0.0	24.8	28.1	0.0	27.8
LnGrp LOS	B	B	B	A	A	A	C		C	C		C
Approach Vol, veh/h		430			294			330				17
Approach Delay, s/veh		16.6			9.2			24.2				27.9
Approach LOS		B			A			C				C
Timer - Assigned Phs	1	2		4		6	7	8				
Phs Duration (G+Y+Rc), s	8.5	40.5		26.6		49.0	9.1	17.5				
Change Period (Y+Rc), s	3.0	7.5		6.5		7.5	3.0	6.5				
Max Green Setting (Gmax), s	8.5	30.0		44.5		41.5	8.5	33.0				
Max Q Clear Time (g_c+I1), s	3.5	13.1		11.3		6.3	5.3	2.8				
Green Ext Time (p_c), s	0.1	5.3		4.4		3.5	0.1	0.1				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				17.1								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
5: Ninth Line & Argentia Rd

03/05/2026



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	52	30	444	224	97	805
Future Volume (veh/h)	52	30	444	224	97	805
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1796	1796	1870	1870	1870	1856
Adj Flow Rate, veh/h	56	32	477	241	104	866
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	7	7	2	2	2	3
Cap, veh/h	119	106	2549	1137	634	2529
Arrive On Green	0.07	0.07	0.72	0.72	0.72	0.72
Sat Flow, veh/h	1711	1522	3647	1585	734	3618
Grp Volume(v), veh/h	56	32	477	241	104	866
Grp Sat Flow(s),veh/h/ln	1711	1522	1777	1585	734	1763
Q Serve(g_s), s	1.6	1.0	2.3	2.6	2.8	4.7
Cycle Q Clear(g_c), s	1.6	1.0	2.3	2.6	5.0	4.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	119	106	2549	1137	634	2529
V/C Ratio(X)	0.47	0.30	0.19	0.21	0.16	0.34
Avail Cap(c_a), veh/h	597	531	2549	1137	634	2529
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	22.8	2.4	2.4	3.2	2.7
Incr Delay (d2), s/veh	2.9	1.6	0.2	0.4	0.6	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.2	0.1	0.1	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	26.0	24.4	2.5	2.9	3.8	3.1
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	88		718			970
Approach Delay, s/veh	25.4		2.6			3.2
Approach LOS	C		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		43.5			43.5	8.1
Change Period (Y+Rc), s		6.5			6.5	4.5
Max Green Setting (Gmax), s		37.0			37.0	18.0
Max Q Clear Time (g_c+I1), s		7.0			4.6	3.6
Green Ext Time (p_c), s		17.6			10.6	0.3
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			4.1			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
 6: Ninth Line & Derry Rd E/Derry Rd W

03/05/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	733	38	84	401	31	105	352	127	28	460	303
Future Volume (veh/h)	173	733	38	84	401	31	105	352	127	28	460	303
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1870	1811	1811	1885	1900	1841	1841	1856	1900	1856	1841
Adj Flow Rate, veh/h	178	756	39	87	413	32	108	363	131	29	474	312
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, %	3	2	6	6	1	0	4	4	3	0	3	4
Cap, veh/h	555	1776	92	447	1674	129	247	1191	536	287	934	413
Arrive On Green	0.13	1.00	1.00	0.04	0.50	0.50	0.06	0.34	0.34	0.26	0.26	0.26
Sat Flow, veh/h	1767	3438	177	1725	3369	260	1753	3497	1572	917	3526	1560
Grp Volume(v), veh/h	178	391	404	87	219	226	108	363	131	29	474	312
Grp Sat Flow(s),veh/h/ln	1767	1777	1838	1725	1791	1838	1753	1749	1572	917	1763	1560
Q Serve(g_s), s	8.1	0.0	0.0	3.9	11.2	11.3	7.0	12.2	9.6	3.8	18.3	29.4
Cycle Q Clear(g_c), s	8.1	0.0	0.0	3.9	11.2	11.3	7.0	12.2	9.6	3.9	18.3	29.4
Prop In Lane	1.00		0.10	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	555	918	950	447	890	913	247	1191	536	287	934	413
V/C Ratio(X)	0.32	0.43	0.43	0.19	0.25	0.25	0.44	0.30	0.24	0.10	0.51	0.76
Avail Cap(c_a), veh/h	555	918	950	481	890	913	312	1727	776	391	1333	590
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)	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.9	0.0	0.0	17.8	23.1	23.1	39.3	38.8	37.9	44.7	49.9	54.0
Incr Delay (d2), s/veh	0.3	1.3	1.3	0.2	0.7	0.6	1.2	0.1	0.2	0.2	0.4	3.4
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	1.9	0.3	0.3	1.1	3.6	3.7	2.5	4.2	3.0	0.7	6.6	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.2	1.3	1.3	18.1	23.7	23.7	40.5	39.0	38.2	44.9	50.4	57.4
LnGrp LOS	B	A	A	B	C	C	D	D	D	D	D	E
Approach Vol, veh/h		973			532			602			815	
Approach Delay, s/veh		4.0			22.8			39.1			52.9	
Approach LOS		A			C			D			D	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	89.1		61.0	13.0	86.0	12.1	48.9				
Change Period (Y+Rc), s	3.0	6.5		* 6.5	3.0	6.5	3.0	6.5				
Max Green Setting (Gmax), s	10.0	55.5		* 79	10.0	55.5	15.0	60.5				
Max Q Clear Time (g_c+15), s	15.0	2.0		14.2	10.1	13.3	9.0	31.4				
Green Ext Time (p_c), s	0.1	18.7		8.5	0.0	8.4	0.2	11.0				

Intersection Summary

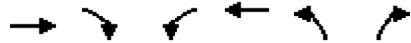
HCM 6th Ctrl Delay, s/veh	28.3
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
 7: Hwy 407 NB Ramp Terminal & Derry Rd E

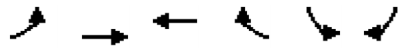
03/05/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	↑
Traffic Volume (veh/h)	853	200	2	685	9	110
Future Volume (veh/h)	853	200	2	685	9	110
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1758	1477	1758
Adj Flow Rate, veh/h	879	206	2	706	9	113
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	3	23	3
Cap, veh/h	1489	349	46	1800	870	475
Arrive On Green	0.55	0.55	0.55	0.55	0.32	0.32
Sat Flow, veh/h	2796	634	1	3353	2729	1490
Grp Volume(v), veh/h	546	539	379	329	9	113
Grp Sat Flow(s),veh/h/ln	1683	1658	1755	1520	1365	1490
Q Serve(g_s), s	17.3	17.3	0.0	9.9	0.2	4.5
Cycle Q Clear(g_c), s	17.3	17.3	9.9	9.9	0.2	4.5
Prop In Lane		0.38	0.01		1.00	1.00
Lane Grp Cap(c), veh/h	926	912	1010	836	870	475
V/C Ratio(X)	0.59	0.59	0.38	0.39	0.01	0.24
Avail Cap(c_a), veh/h	926	912	1010	836	870	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.93	0.93	1.00	1.00
Uniform Delay (d), s/veh	12.0	12.0	10.3	10.3	18.6	20.1
Incr Delay (d2), s/veh	2.8	2.8	1.0	1.3	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	1.8	0.9	0.9	0.0	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	14.8	14.8	11.3	11.6	18.6	21.3
LnGrp LOS	B	B	B	B	B	C
Approach Vol, veh/h	1085			708	122	
Approach Delay, s/veh	14.8			11.5	21.1	
Approach LOS	B			B	C	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		30.0		50.0		50.0
Change Period (Y+Rc), s		4.5		6.0		6.0
Max Green Setting (Gmax), s		25.5		44.0		44.0
Max Q Clear Time (g_c+I1), s		6.5		19.3		11.9
Green Ext Time (p_c), s		0.6		17.4		13.1
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			14.0			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 8: Derry Rd E & Hwy 407 SB Ramp Terminal

03/05/2026



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	1037	542	145	27	52
Future Volume (veh/h)	0	1037	542	145	27	52
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1772	1758	1758	1688	1575
Adj Flow Rate, veh/h	0	1092	571	153	28	55
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	3	3	8	16
Cap, veh/h	0	2041	1580	422	877	375
Arrive On Green	0.00	0.61	0.61	0.61	0.28	0.28
Sat Flow, veh/h	0	3544	2694	696	3118	1335
Grp Volume(v), veh/h	0	1092	365	359	28	55
Grp Sat Flow(s),veh/h/ln	0	1683	1670	1633	1559	1335
Q Serve(g_s), s	0.0	15.1	8.8	8.9	0.5	2.5
Cycle Q Clear(g_c), s	0.0	15.1	8.8	8.9	0.5	2.5
Prop In Lane	0.00			0.43	1.00	1.00
Lane Grp Cap(c), veh/h	0	2041	1012	990	877	375
V/C Ratio(X)	0.00	0.54	0.36	0.36	0.03	0.15
Avail Cap(c_a), veh/h	0	2041	1012	990	877	375
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.2	7.9	7.9	20.9	21.6
Incr Delay (d2), s/veh	0.0	1.0	1.0	1.0	0.1	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.3	0.3	0.1	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.0	10.2	8.9	9.0	20.9	22.4
LnGrp LOS		B	A	A	C	C
Approach Vol, veh/h		1092	724		83	
Approach Delay, s/veh		10.2	9.0		21.9	
Approach LOS		B	A		C	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				53.0	27.0	53.0
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				48.5	22.5	48.5
Max Q Clear Time (g_c+I1), s				17.1	4.5	10.9
Green Ext Time (p_c), s				21.2	0.3	14.7
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			10.2			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	6.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			Y	Y	
Traffic Vol, veh/h	0	23	75	13	10	0
Future Vol, veh/h	0	23	75	13	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	25	82	14	11	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	189	11	11	0	0
Stage 1	11	-	-	-	-
Stage 2	178	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	800	1070	1608	-	-
Stage 1	1012	-	-	-	-
Stage 2	853	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	759	1070	1608	-	-
Mov Cap-2 Maneuver	759	-	-	-	-
Stage 1	960	-	-	-	-
Stage 2	853	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.4	6.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1608	-	1070	-	-
HCM Lane V/C Ratio	0.051	-	0.023	-	-
HCM Ctrl Dly (s/v)	7.4	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0.2	-	0.1	-	-

Intersection						
Int Delay, s/veh	7.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	TT			TT	TT	
Traffic Vol, veh/h	0	10	13	0	0	0
Future Vol, veh/h	0	10	13	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	14	0	0	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	29	1	1	0	0
Stage 1	1	-	-	-	-
Stage 2	28	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	986	1084	1622	-	-
Stage 1	1022	-	-	-	-
Stage 2	995	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	977	1084	1622	-	-
Mov Cap-2 Maneuver	977	-	-	-	-
Stage 1	1013	-	-	-	-
Stage 2	995	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.4	7.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.009	-	0.01	-	-
HCM Ctrl Dly (s/v)	7.2	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0	-	0	-	-

HCM 6th Signalized Intersection Summary

Future Total 2037 PM

1: Winston Churchill Blvd & Carpool Lot Hwy 401/Hwy 401 WB Ramp Terminal

03/09/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶		↷	↶	↷	↷	↶	↷			↷	↷
Traffic Volume (veh/h)	7	0	18	809	13	755	5	1121	231	0	1434	434
Future Volume (veh/h)	7	0	18	809	13	755	5	1121	231	0	1434	434
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1688	0	1800	1800	1786	1800	1786	1800	1702	0	1702	1702
Adj Flow Rate, veh/h	7	0	19	853	0	786	5	1168	241	0	1494	452
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, %	8	0	0	0	1	0	1	0	7	0	7	7
Cap, veh/h	0	0	0	1026	0	913	186	1714	351	0	2817	875
Arrive On Green	0.00	0.00	0.00	0.30	0.00	0.30	0.61	0.61	0.61	0.00	0.61	0.61
Sat Flow, veh/h		0		3429	0	3051	336	2827	579	0	4799	1442
Grp Volume(v), veh/h		0.0		853	0	786	5	703	706	0	1494	452
Grp Sat Flow(s),veh/h/ln				1714	0	1525	336	1710	1696	0	1549	1442
Q Serve(g_s), s				37.1	0.0	38.9	1.4	44.0	44.9	0.0	29.8	28.7
Cycle Q Clear(g_c), s				37.1	0.0	38.9	31.2	44.0	44.9	0.0	29.8	28.7
Prop In Lane				1.00		1.00	1.00		0.34	0.00		1.00
Lane Grp Cap(c), veh/h				1026	0	913	186	1037	1028	0	2817	875
V/C Ratio(X)				0.83	0.00	0.86	0.03	0.68	0.69	0.00	0.53	0.52
Avail Cap(c_a), veh/h				1089	0	969	186	1037	1028	0	2817	875
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				52.3	0.0	52.9	27.3	21.0	21.2	0.0	18.3	18.0
Incr Delay (d2), s/veh				5.3	0.0	7.7	0.3	3.6	3.7	0.0	0.7	2.2
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				13.5	0.0	12.9	0.1	11.6	11.8	0.0	6.7	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				57.7	0.0	60.6	27.6	24.6	24.9	0.0	19.0	20.2
LnGrp LOS				E		E	C	C	C		B	C
Approach Vol, veh/h					1639			1414			1946	
Approach Delay, s/veh					59.1			24.8			19.3	
Approach LOS					E			C			B	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		104.5		55.5		104.5						
Change Period (Y+Rc), s		7.5		7.6		7.5						
Max Green Setting (Gmax), s		48.7		50.8		48.7						
Max Q Clear Time (g_c+I1), s		31.8		40.9		46.9						
Green Ext Time (p_c), s		15.7		7.0		1.7						

Intersection Summary

HCM 6th Ctrl Delay, s/veh	33.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 2: Winston Churchill Blvd & Hwy 401 EB Ramp Terminal

Future Total 2037 PM
 03/09/2026



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	340	330	5	962	1755	572
Future Volume (veh/h)	340	330	5	962	1755	572
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1603	1744	1772	1744	1772	1772
Adj Flow Rate, veh/h	468	238	5	1023	1867	609
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	14	4	2	4	2	2
Cap, veh/h	590	286	27	3215	2585	802
Arrive On Green	0.19	0.19	0.71	0.71	0.71	0.71
Sat Flow, veh/h	3054	1478	6	4692	3818	1134
Grp Volume(v), veh/h	468	238	377	651	1634	842
Grp Sat Flow(s),veh/h/ln	1527	1478	1667	1444	1612	1568
Q Serve(g_s), s	23.4	24.8	0.0	13.7	48.2	54.4
Cycle Q Clear(g_c), s	23.4	24.8	12.9	13.7	48.2	54.4
Prop In Lane	1.00	1.00	0.01			0.72
Lane Grp Cap(c), veh/h	590	286	1201	2041	2279	1108
V/C Ratio(X)	0.79	0.83	0.31	0.32	0.72	0.76
Avail Cap(c_a), veh/h	792	383	1201	2041	2279	1108
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.86	0.86	1.00	1.00
Uniform Delay (d), s/veh	61.5	62.1	8.8	8.9	13.9	14.9
Incr Delay (d2), s/veh	4.0	11.1	0.6	0.4	2.0	4.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	8.8	2.3	2.0	8.0	9.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	65.5	73.2	9.4	9.2	15.9	19.8
LnGrp LOS	E	E	A	A	B	B
Approach Vol, veh/h	706			1028	2476	
Approach Delay, s/veh	68.1			9.3	17.2	
Approach LOS	E			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		120.6		39.4		120.6
Change Period (Y+Rc), s		7.5		8.5		7.5
Max Green Setting (Gmax), s		102.5		41.5		102.5
Max Q Clear Time (g_c+I1), s		15.7		26.8		56.4
Green Ext Time (p_c), s		32.2		4.1		45.2
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			23.8			
HCM 6th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 3: Winston Churchill Blvd & Argentia Rd

Future Total 2037 PM
 03/09/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↖	↑↑	↗	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗
Traffic Volume (veh/h)	354	332	202	268	576	284	221	755	94	229	1235	358
Future Volume (veh/h)	354	332	202	268	576	284	221	755	94	229	1235	358
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.98		0.96	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	1841	1870	1885	1885	1870	1856	1885	1826	1870	1841	1870
Adj Flow Rate, veh/h	358	335	204	271	582	287	223	763	0	231	1247	362
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	4	2	1	1	2	3	1	5	2	4	2
Cap, veh/h	416	1077	594	482	1013	557	269	1848		278	1814	762
Arrive On Green	0.12	0.31	0.31	0.11	0.28	0.28	0.08	0.36	0.00	0.16	0.72	0.72
Sat Flow, veh/h	3428	3497	1523	1795	3582	1518	3428	5147	1547	3456	5025	1577
Grp Volume(v), veh/h	358	335	204	271	582	287	223	763	0	231	1247	362
Grp Sat Flow(s),veh/h/ln	1714	1749	1523	1795	1791	1518	1714	1716	1547	1728	1675	1577
Q Serve(g_s), s	16.4	11.7	15.2	17.3	22.3	23.8	10.3	17.8	0.0	10.4	21.9	15.3
Cycle Q Clear(g_c), s	16.4	11.7	15.2	17.3	22.3	23.8	10.3	17.8	0.0	10.4	21.9	15.3
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	416	1077	594	482	1013	557	269	1848		278	1814	762
V/C Ratio(X)	0.86	0.31	0.34	0.56	0.57	0.52	0.83	0.41		0.83	0.69	0.48
Avail Cap(c_a), veh/h	514	1215	654	482	1052	573	321	1848		367	1814	762
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.58	0.58	0.58
Uniform Delay (d), s/veh	69.0	42.4	34.8	35.1	49.1	40.0	72.7	38.6	0.0	66.1	17.3	11.1
Incr Delay (d2), s/veh	11.8	0.2	0.3	1.5	0.7	0.7	14.2	0.7	0.0	7.1	1.3	1.2
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	6.8	4.1	4.4	6.1	8.2	7.1	4.4	6.1	0.0	3.9	4.2	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	80.7	42.5	35.1	36.6	49.8	40.7	86.8	39.3	0.0	73.2	18.5	12.3
LnGrp LOS	F	D	D	D	D	D	F	D		E	B	B
Approach Vol, veh/h		897			1140			986			1840	
Approach Delay, s/veh		56.1			44.4			50.0			24.2	
Approach LOS		E			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.6	65.3	24.4	52.8	17.9	65.0	20.4	56.8				
Change Period (Y+Rc), s	5.0	7.5	5.0	7.5	5.0	7.5	3.0	7.5				
Max Green Setting (Gmax), s	15.0	49.0	24.0	47.0	17.0	47.0	17.4	55.6				
Max Q Clear Time (g_c+1/3), s	11.3	23.9	18.4	25.8	12.4	19.8	19.3	17.2				
Green Ext Time (p_c), s	0.3	20.7	1.0	10.6	0.5	13.3	0.0	7.8				

Intersection Summary























HCM 6th Ctrl Delay, s/veh	40.0
HCM 6th LOS	D

Notes

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

HCM 6th Signalized Intersection Summary
4: Tenth Line W & Argentia Rd

Future Total 2037 PM
03/10/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	362	111	451	532	8	66	2	281	7	6	4
Future Volume (veh/h)	2	362	111	451	532	8	66	2	281	7	6	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.99	0.99		0.99	0.99		0.99
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	1900	1856	1826	1870	1900	1856	1841	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2	389	119	485	572	9	71	2	302	8	6	4
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	3	5	2	0	3	4	0	0	0	0	0
Cap, veh/h	369	627	514	546	1048	858	442	3	448	209	190	126
Arrive On Green	0.34	0.34	0.34	0.18	0.55	0.55	0.07	0.28	0.28	0.18	0.18	0.18
Sat Flow, veh/h	840	1856	1520	1781	1900	1555	1753	11	1588	1085	1057	705
Grp Volume(v), veh/h	2	389	119	485	572	9	71	0	304	8	0	10
Grp Sat Flow(s),veh/h/ln	840	1856	1520	1781	1900	1555	1753	0	1598	1085	0	1762
Q Serve(g_s), s	0.1	14.8	4.7	14.5	16.3	0.2	2.6	0.0	14.2	0.6	0.0	0.4
Cycle Q Clear(g_c), s	0.1	14.8	4.7	14.5	16.3	0.2	2.6	0.0	14.2	6.1	0.0	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.40
Lane Grp Cap(c), veh/h	369	627	514	546	1048	858	442	0	451	209	0	316
V/C Ratio(X)	0.01	0.62	0.23	0.89	0.55	0.01	0.16	0.00	0.67	0.04	0.00	0.03
Avail Cap(c_a), veh/h	369	627	514	546	1048	858	501	0	844	439	0	690
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.5	23.4	20.0	15.8	12.1	8.5	23.4	0.0	26.8	33.4	0.0	28.5
Incr Delay (d2), s/veh	0.0	4.6	1.1	16.2	2.0	0.0	0.2	0.0	1.8	0.1	0.0	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	0.0	4.2	1.0	3.9	2.1	0.0	0.7	0.0	3.6	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.5	27.9	21.1	32.0	14.2	8.5	23.6	0.0	28.6	33.4	0.0	28.6
LnGrp LOS	B	C	C	C	B	A	C		C	C		C
Approach Vol, veh/h		510			1066			375				18
Approach Delay, s/veh		26.3			22.2			27.6				30.7
Approach LOS		C			C			C				C
Timer - Assigned Phs	1	2		4		6	7	8				
Phs Duration (G+Y+Rc), s	18.0	36.0		30.3		54.0	8.7	21.6				
Change Period (Y+Rc), s	3.0	7.5		6.5		7.5	3.0	6.5				
Max Green Setting (Gmax), s	15.0	28.5		44.5		46.5	8.5	33.0				
Max Q Clear Time (g_c+I1), s	16.5	16.8		16.2		18.3	4.6	8.1				
Green Ext Time (p_c), s	0.0	4.6		5.7		10.7	0.1	0.1				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				24.4								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
5: Ninth Line & Argentia Rd

Future Total 2037 PM
03/09/2026



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	275	205	1006	134	75	747
Future Volume (veh/h)	275	205	1006	134	75	747
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1885	1885	1885	1856	1811
Adj Flow Rate, veh/h	286	214	1048	140	78	778
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	1	1	1	3	6
Cap, veh/h	375	337	2179	972	327	2094
Arrive On Green	0.21	0.21	0.61	0.61	0.61	0.61
Sat Flow, veh/h	1781	1598	3676	1598	468	3532
Grp Volume(v), veh/h	286	214	1048	140	78	778
Grp Sat Flow(s),veh/h/ln	1781	1598	1791	1598	468	1721
Q Serve(g_s), s	9.2	7.4	9.8	2.3	6.7	7.0
Cycle Q Clear(g_c), s	9.2	7.4	9.8	2.3	16.6	7.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	375	337	2179	972	327	2094
V/C Ratio(X)	0.76	0.64	0.48	0.14	0.24	0.37
Avail Cap(c_a), veh/h	527	473	2179	972	327	2094
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.6	21.9	6.6	5.1	11.2	6.0
Incr Delay (d2), s/veh	4.2	2.0	0.8	0.3	1.7	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	1.3	0.2	0.1	0.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	26.7	23.9	7.4	5.4	12.9	6.5
LnGrp LOS	C	C	A	A	B	A
Approach Vol, veh/h	500		1188			856
Approach Delay, s/veh	25.5		7.1			7.1
Approach LOS	C		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		43.5			43.5	17.3
Change Period (Y+Rc), s		6.5			6.5	4.5
Max Green Setting (Gmax), s		37.0			37.0	18.0
Max Q Clear Time (g_c+I1), s		18.6			11.8	11.2
Green Ext Time (p_c), s		11.7			18.0	1.6
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			10.7			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 6: Ninth Line & Derry Rd E/Derry Rd W

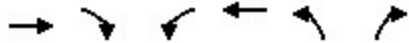
Future Total 2037 PM
 03/09/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗		↘	↗		↘	↗	↘	↗	↗	↘
Traffic Volume (veh/h)	259	667	130	164	941	57	80	715	144	61	540	260
Future Volume (veh/h)	259	667	130	164	941	57	80	715	144	61	540	260
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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		No		No
Adj Sat Flow, veh/h/ln	1870	1885	1885	1900	1885	1885	1811	1841	1885	1870	1900	1885
Adj Flow Rate, veh/h	276	710	138	174	1001	61	85	761	153	65	574	277
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	1	1	0	1	1	6	4	1	2	0	1
Cap, veh/h	362	1552	302	406	1678	102	196	1105	504	122	894	395
Arrive On Green	0.09	0.52	0.52	0.07	0.49	0.49	0.05	0.32	0.32	0.25	0.25	0.25
Sat Flow, veh/h	1781	2990	581	1810	3429	209	1725	3497	1596	611	3610	1596
Grp Volume(v), veh/h	276	425	423	174	523	539	85	761	153	65	574	277
Grp Sat Flow(s),veh/h/ln	1781	1791	1780	1810	1791	1847	1725	1749	1596	611	1805	1596
Q Serve(g_s), s	11.8	23.9	24.0	7.6	33.7	33.7	5.7	30.4	11.6	16.7	22.8	25.3
Cycle Q Clear(g_c), s	11.8	23.9	24.0	7.6	33.7	33.7	5.7	30.4	11.6	36.2	22.8	25.3
Prop In Lane	1.00		0.33	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	362	930	924	406	876	904	196	1105	504	122	894	395
V/C Ratio(X)	0.76	0.46	0.46	0.43	0.60	0.60	0.43	0.69	0.30	0.53	0.64	0.70
Avail Cap(c_a), veh/h	533	930	924	634	876	904	440	1607	733	123	903	399
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	24.3	24.3	19.1	29.5	29.5	42.3	47.9	41.4	68.5	53.8	54.8
Incr Delay (d2), s/veh	3.3	1.4	1.4	0.7	3.0	2.9	1.5	0.8	0.3	4.3	1.5	5.3
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	8.4	7.5	7.4	2.2	11.1	11.5	2.1	10.7	3.7	2.3	8.7	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.0	25.7	25.7	19.9	32.4	32.4	43.8	48.6	41.8	72.8	55.4	60.1
LnGrp LOS	C	C	C	B	C	C	D	D	D	E	E	E
Approach Vol, veh/h		1124			1236			999			916	
Approach Delay, s/veh		26.0			30.6			47.2			58.0	
Approach LOS		C			C			D			E	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	3.4	89.6		57.0	18.2	84.8	10.9	46.1				
Change Period (Y+Rc), s	3.0	6.5		6.5	3.0	6.5	3.0	6.5				
Max Green Setting (Gmax), s	30.5	40.0		73.5	30.5	40.0	30.5	40.0				
Max Q Clear Time (g_c+1), s	19.6	26.0		32.4	13.8	35.7	7.7	38.2				
Green Ext Time (p_c), s	0.8	9.2		18.1	1.3	3.7	0.4	1.3				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh											39.1	
HCM 6th LOS											D	

HCM 6th Signalized Intersection Summary
 7: Hwy 407 NB Ramp Terminal & Derry Rd E

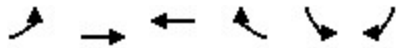
Future Total 2037 PM
 03/09/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	↑
Traffic Volume (veh/h)	948	70	2	1233	40	147
Future Volume (veh/h)	948	70	2	1233	40	147
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1786	1786	1688	1786	1702	1772
Adj Flow Rate, veh/h	967	71	2	1258	41	150
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	1	8	1	7	2
Cap, veh/h	1496	110	61	1553	1048	501
Arrive On Green	0.47	0.47	0.47	0.47	0.33	0.33
Sat Flow, veh/h	3294	235	1	3409	3144	1502
Grp Volume(v), veh/h	512	526	676	584	41	150
Grp Sat Flow(s),veh/h/ln	1697	1744	1784	1544	1572	1502
Q Serve(g_s), s	13.8	13.8	0.0	19.5	0.5	4.4
Cycle Q Clear(g_c), s	13.8	13.8	19.5	19.5	0.5	4.4
Prop In Lane		0.13	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	792	814	893	721	1048	501
V/C Ratio(X)	0.65	0.65	0.76	0.81	0.04	0.30
Avail Cap(c_a), veh/h	792	814	893	721	1048	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.78	0.78	1.00	1.00
Uniform Delay (d), s/veh	12.2	12.2	13.7	13.7	13.5	14.8
Incr Delay (d2), s/veh	4.1	3.9	4.7	7.7	0.1	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.1	2.5	2.7	0.1	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	16.3	16.2	18.4	21.4	13.6	16.3
LnGrp LOS	B	B	B	C	B	B
Approach Vol, veh/h	1038			1260	191	
Approach Delay, s/veh	16.2			19.8	15.8	
Approach LOS	B			B	B	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		26.0		34.0		34.0
Change Period (Y+Rc), s		6.0		6.0		6.0
Max Green Setting (Gmax), s		20.0		28.0		28.0
Max Q Clear Time (g_c+I1), s		6.4		15.8		21.5
Green Ext Time (p_c), s		0.8		9.4		5.9
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			18.0			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
 8: Derry Rd E & Hwy 407 SB Ramp Terminal

Future Total 2037 PM
 03/09/2026



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	863	1104	148	166	235
Future Volume (veh/h)	0	863	1104	148	166	235
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1772	1786	1786	1772	1786
Adj Flow Rate, veh/h	0	881	1127	151	169	240
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	1	1	2	1
Cap, veh/h	0	1711	1529	204	1119	517
Arrive On Green	0.00	0.51	0.51	0.51	0.34	0.34
Sat Flow, veh/h	0	3544	3097	402	3274	1514
Grp Volume(v), veh/h	0	881	635	643	169	240
Grp Sat Flow(s),veh/h/ln	0	1683	1697	1714	1637	1514
Q Serve(g_s), s	0.0	10.5	17.6	17.7	2.2	7.4
Cycle Q Clear(g_c), s	0.0	10.5	17.6	17.7	2.2	7.4
Prop In Lane	0.00			0.23	1.00	1.00
Lane Grp Cap(c), veh/h	0	1711	862	871	1119	517
V/C Ratio(X)	0.00	0.51	0.74	0.74	0.15	0.46
Avail Cap(c_a), veh/h	0	1711	862	871	1119	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.8	11.6	11.6	13.7	15.5
Incr Delay (d2), s/veh	0.0	1.1	5.6	5.6	0.3	3.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	1.3	1.3	0.3	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.0	10.9	17.1	17.2	14.0	18.4
LnGrp LOS		B	B	B	B	B
Approach Vol, veh/h		881	1278		409	
Approach Delay, s/veh		10.9	17.2		16.6	
Approach LOS		B	B		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				35.0	25.0	35.0
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				30.5	20.5	30.5
Max Q Clear Time (g_c+I1), s				12.5	9.4	19.7
Green Ext Time (p_c), s				11.7	1.8	9.4
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			14.9			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	6.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	0	73	28	6	13	0
Future Vol, veh/h	0	73	28	6	13	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	79	30	7	14	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	81	14	14	0	0
Stage 1	14	-	-	-	-
Stage 2	67	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	921	1066	1604	-	-
Stage 1	1009	-	-	-	-
Stage 2	956	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	904	1066	1604	-	-
Mov Cap-2 Maneuver	904	-	-	-	-
Stage 1	990	-	-	-	-
Stage 2	956	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.6	6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1604	-	1066	-	-
HCM Lane V/C Ratio	0.019	-	0.074	-	-
HCM Ctrl Dly (s/v)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0.1	-	0.2	-	-

Intersection						
Int Delay, s/veh	7.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Traffic Vol, veh/h	0	13	6	0	0	0
Future Vol, veh/h	0	13	6	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	7	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	15	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	14	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1004	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	1009	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1000	1084	1622	-	-	-
Mov Cap-2 Maneuver	1000	-	-	-	-	-
Stage 1	1018	-	-	-	-	-
Stage 2	1009	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.4	7.2	0
HCM LOS	A		

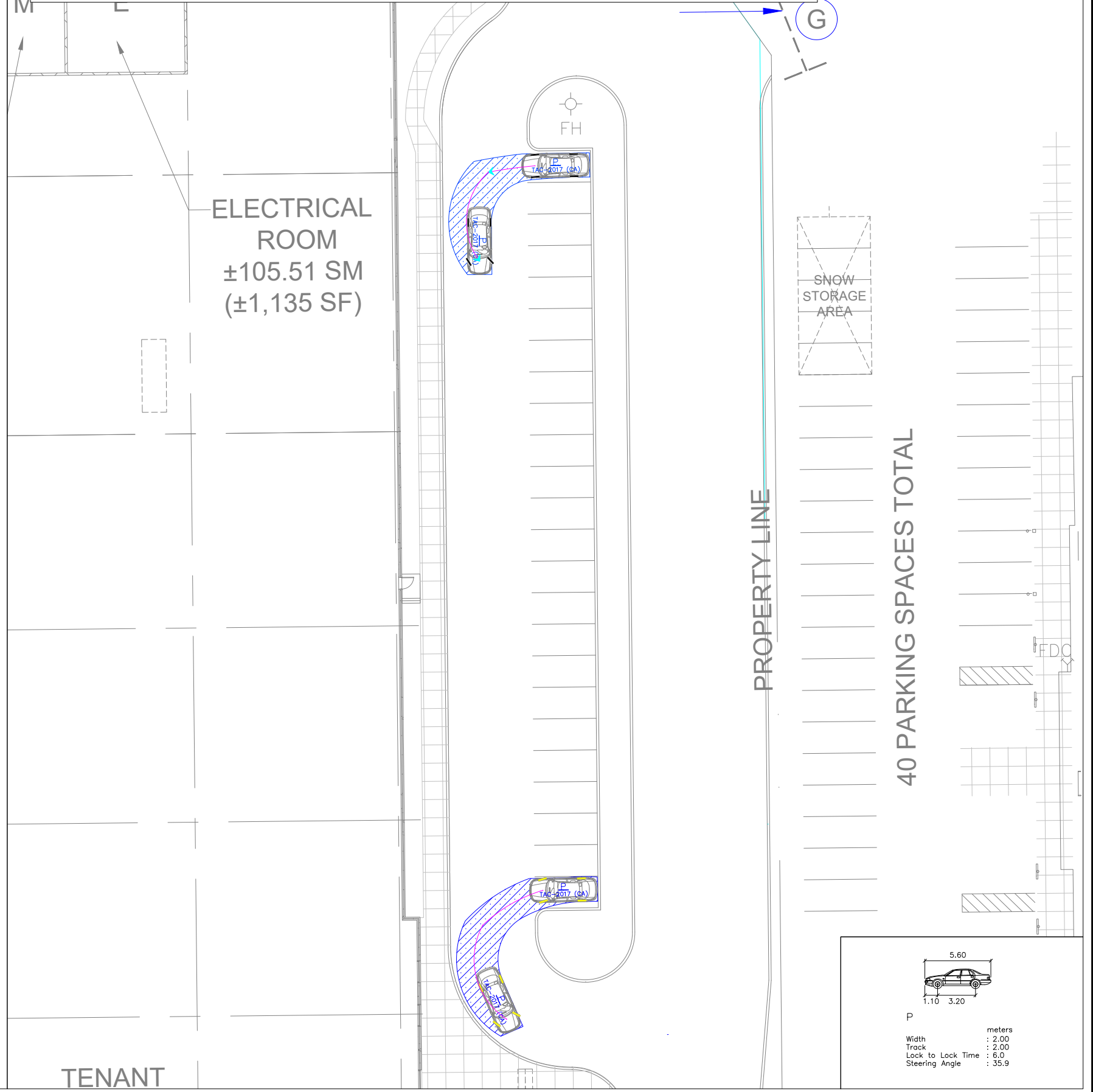
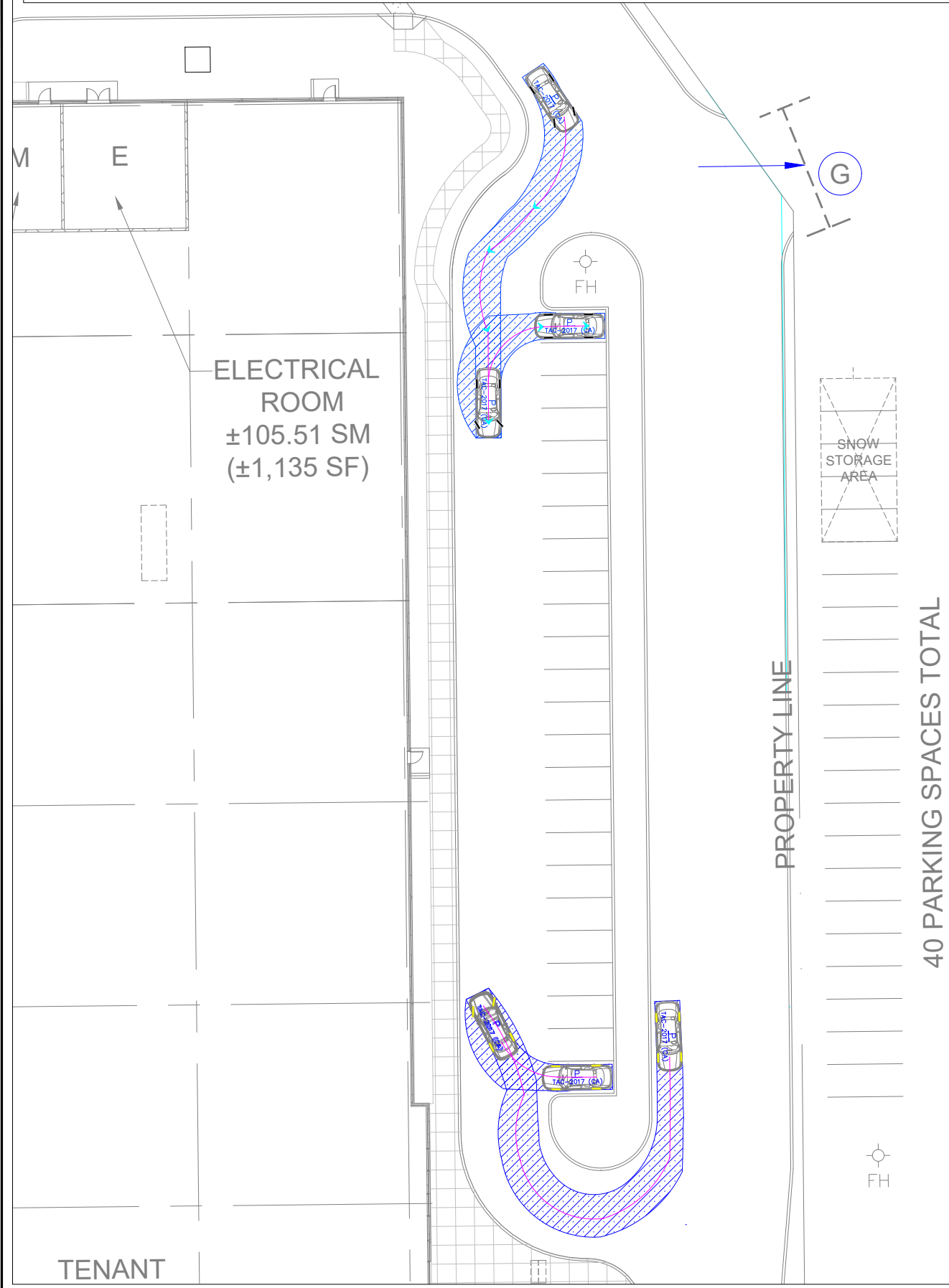
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.004	-	0.013	-	-
HCM Ctrl Dly (s/v)	7.2	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0	-	0	-	-



Appendix F: **Vehicle Maneuvering Diagrams**

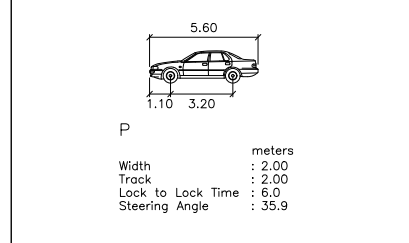
ENTRY MANEUVER- PASSENGER PARKING – WEST OF DATA CENTRE & RIGHT OF INDUSTRIAL BUILDING DC 5

EXIT MANEUVER- PASSENGER PARKING – WEST OF DATA CENTRE & RIGHT OF INDUSTRIAL BUILDING DC 5



PROPERTY LINE
40 PARKING SPACES TOTAL

PROPERTY LINE
40 PARKING SPACES TOTAL



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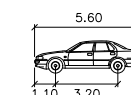
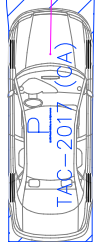
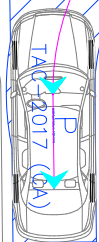
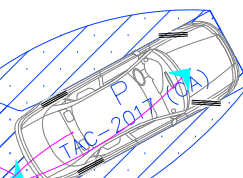
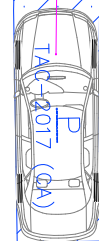
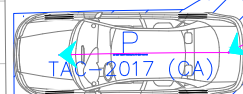


ENTRY MANEUVER – PASSENGER PARKING – ABOVE UTILITY YARD

EXIT MANEUVER – PASSENGER PARKING – ABOVE UTILITY YARD

77 PARKING
63 PARKING

77 PARKING
63 PARKING



P	meters
Width	: 2.00
Track	: 2.00
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

1

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N.T.S

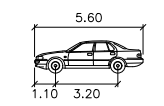
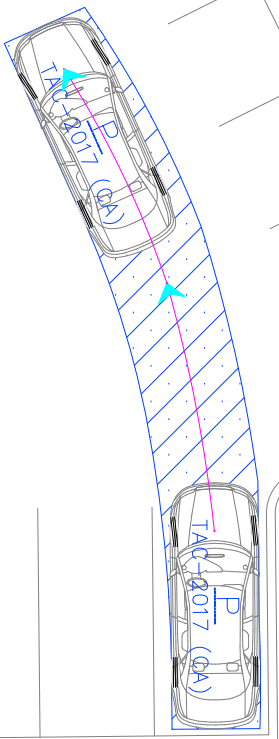
ENTRY MANEUVER – PASSENGER PARKING – ABOVE UTILITY YARD

EXIT MANEUVER – PASSENGER PARKING – ABOVE UTILITY YARD

S (BLDG DC4)
S (BLDG DC5)

PACES (BLDG DC4)
PACES (BLDG DC5)

LIMIT OF BLOCK 2



P
Width : 2.00
Track : 2.00
Lock to Lock Time : 6.0
Steering Angle : 35.9

N.T.S

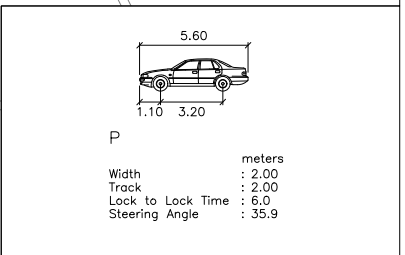
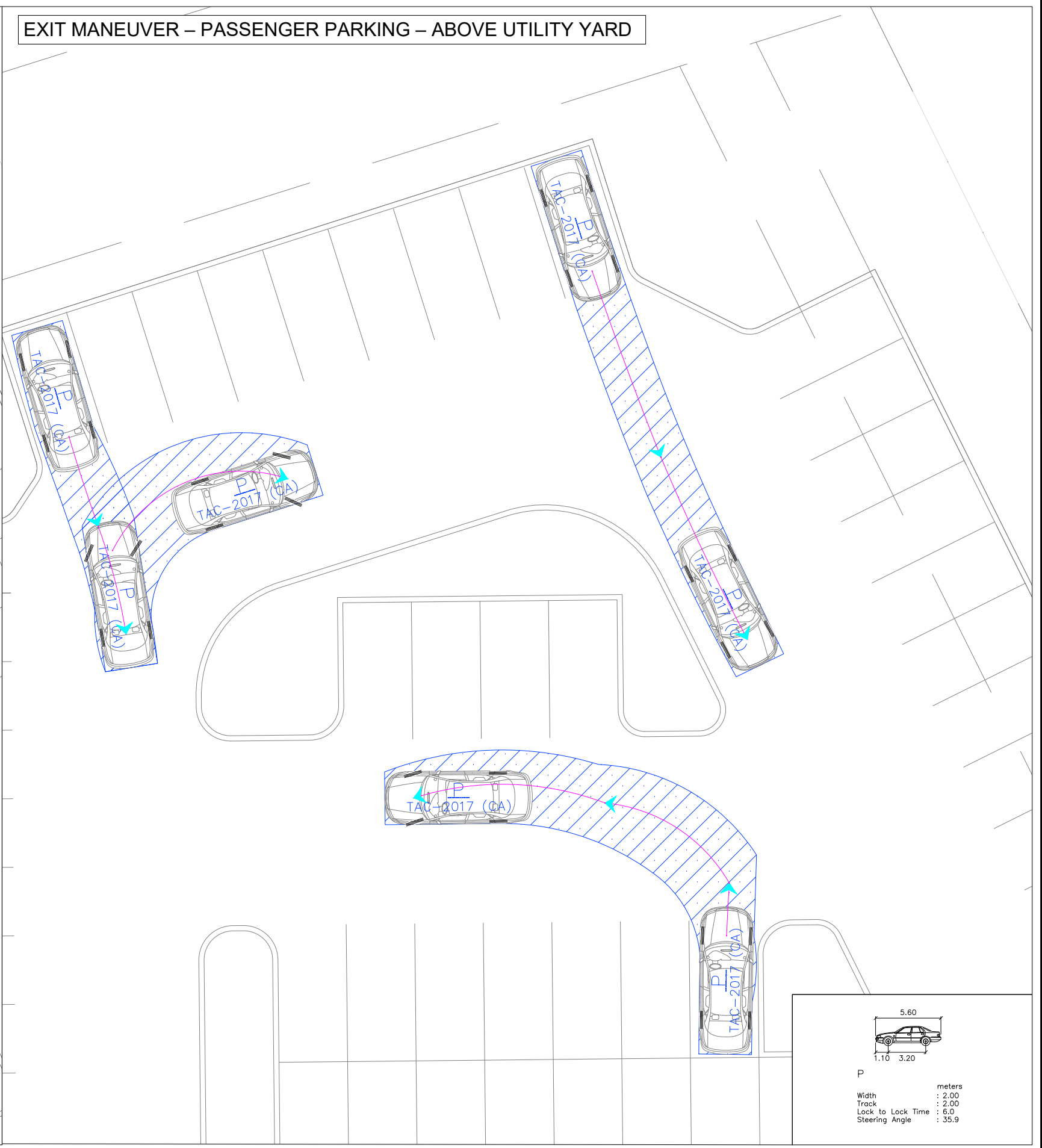
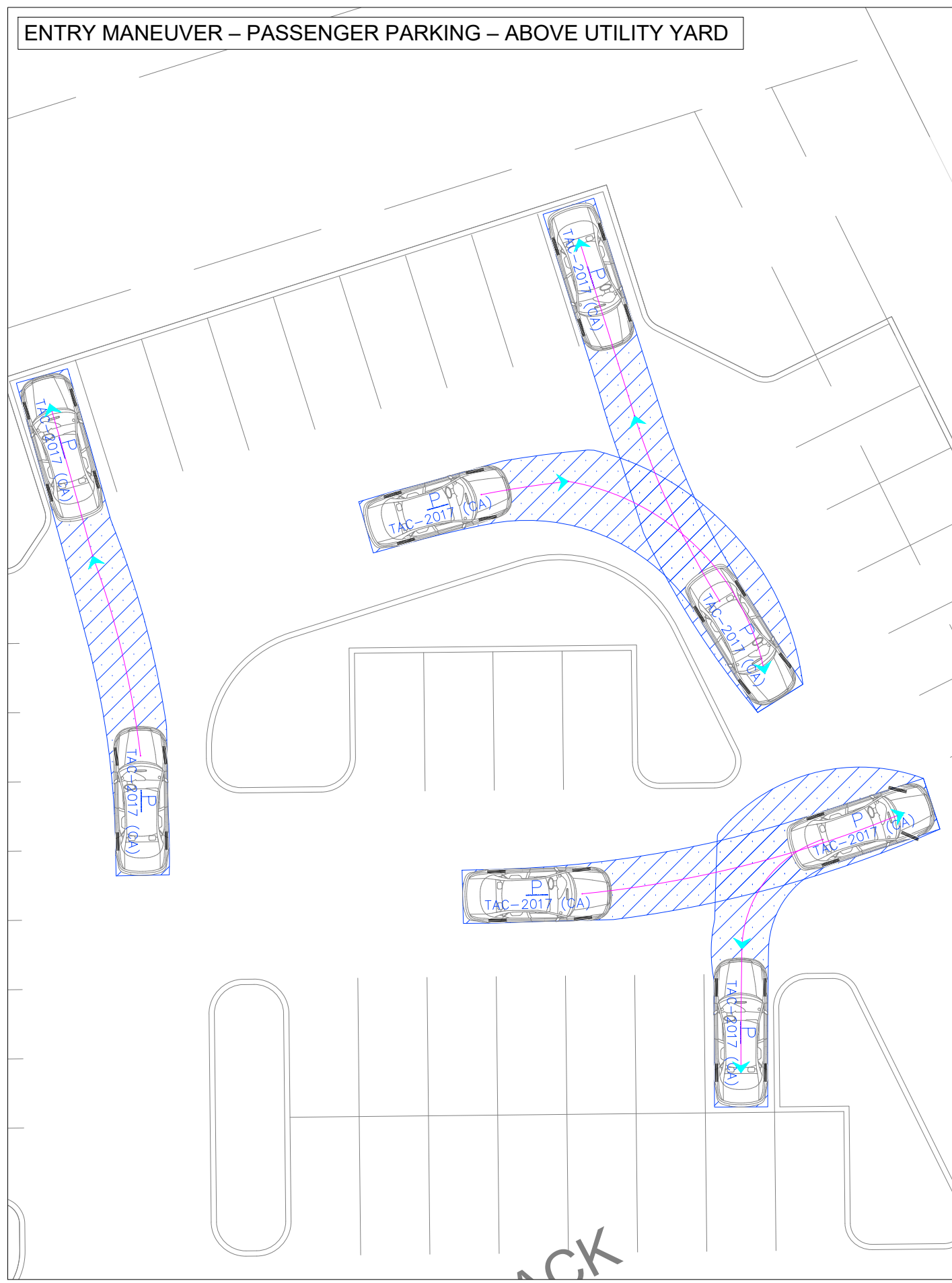
DRAWING No. 03
DATE MAR 2026



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ENTRY MANEUVER – PASSENGER PARKING – ABOVE UTILITY YARD

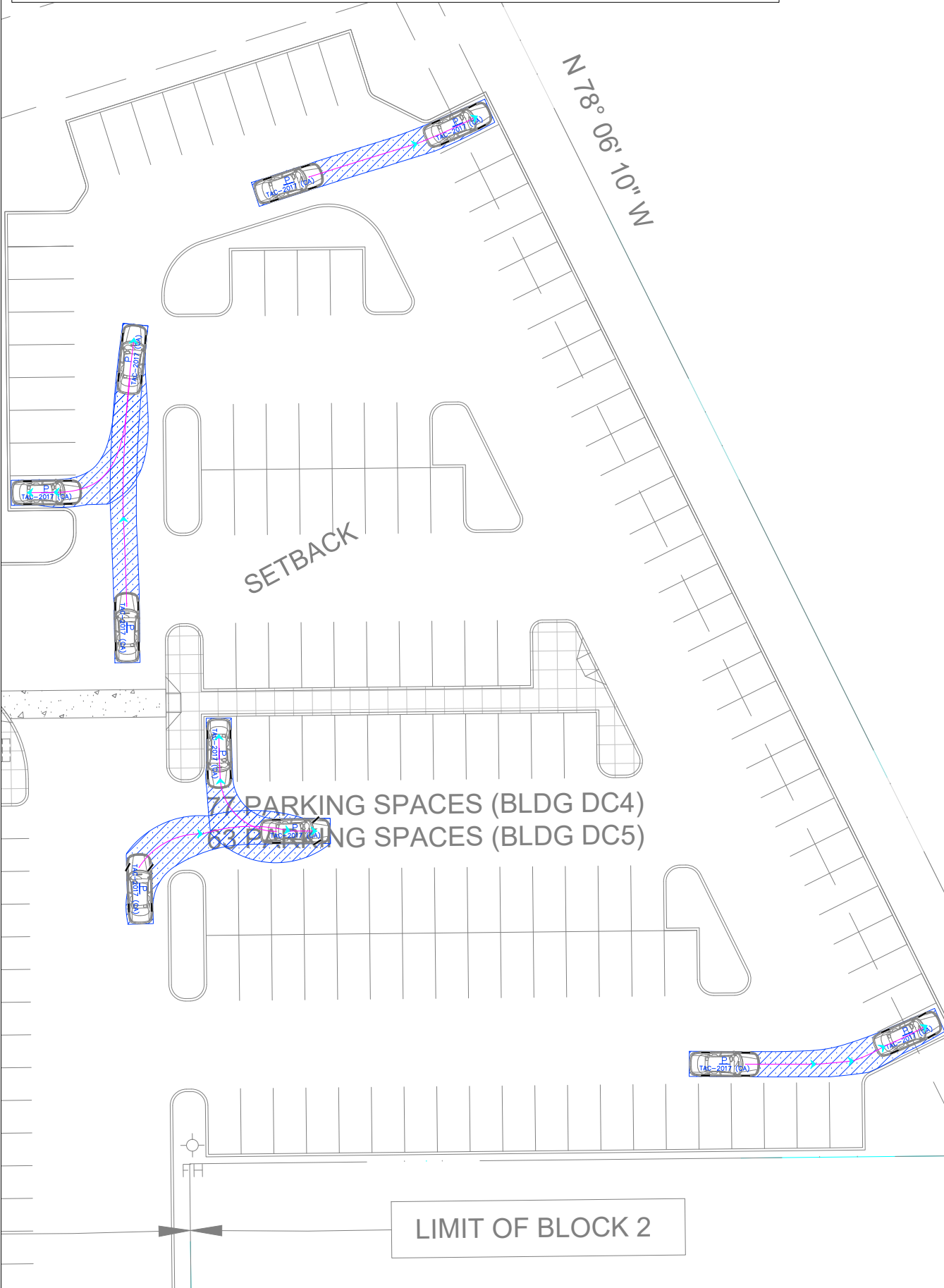
EXIT MANEUVER – PASSENGER PARKING – ABOVE UTILITY YARD



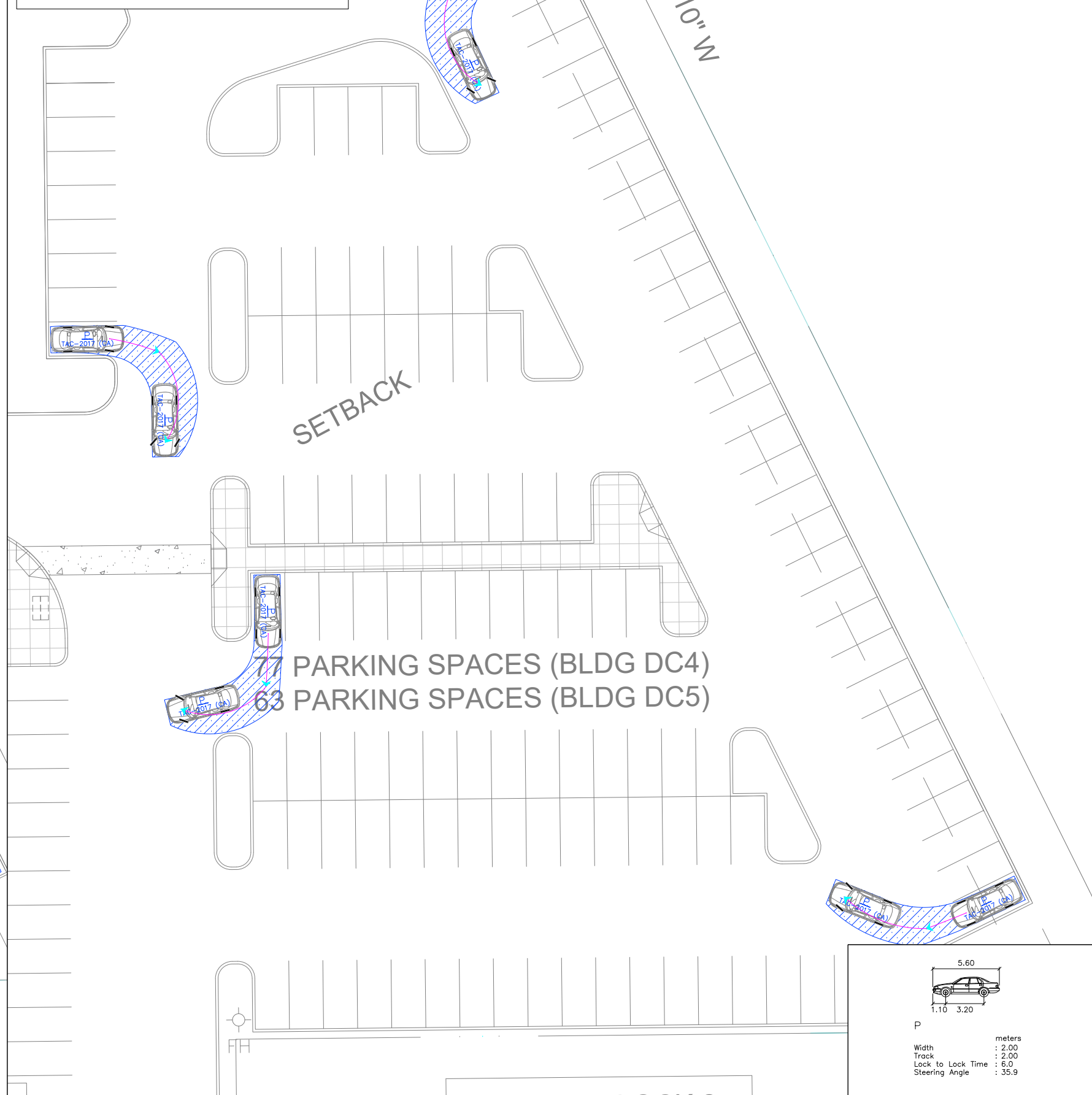
G:\Projects\2025\100658-7564_10th Line West Industrial Prologis\03 Analysis\03 Site review & Circulation\02 Vehicle Sweep Path\20250730



ENTRY MANEUVER – PASSENGER PARKING – ABOVE UTILITY YARD



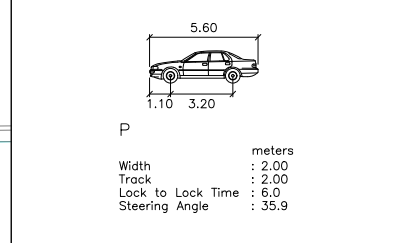
EXIT MANEUVER – PASSENGER PARKING – ABOVE UTILITY YARD



PARKING SPACES (BLDG DC4)
63 PARKING SPACES (BLDG DC5)

77 PARKING SPACES (BLDG DC4)
63 PARKING SPACES (BLDG DC5)

LIMIT OF BLOCK 2

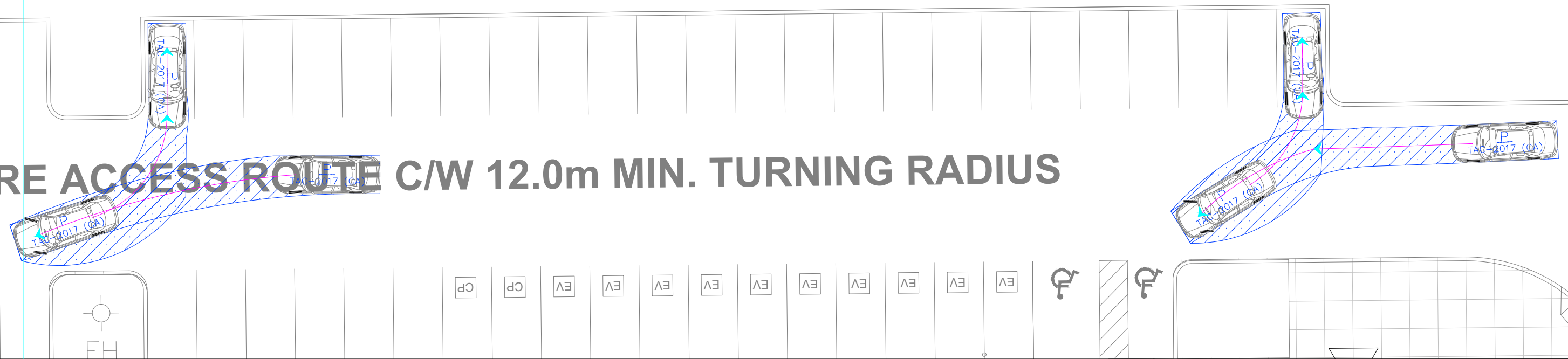


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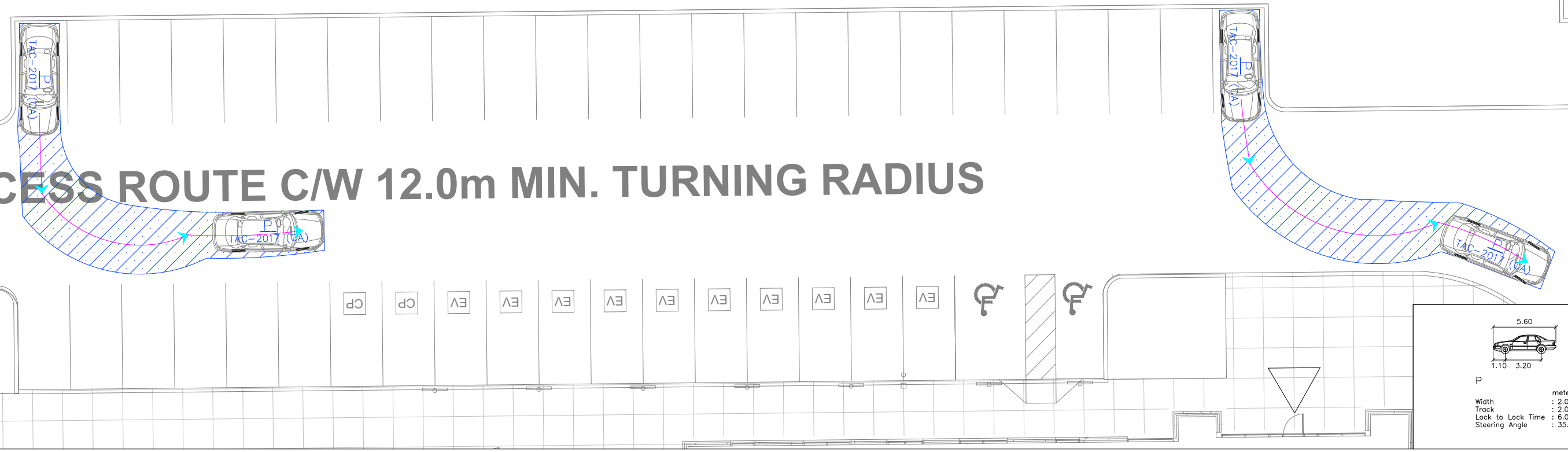
ENTRY MANEUVER – PASSENGER PARKING – ABOVE INDUSTRIAL BUILDING DC4

FIRE ACCESS ROUTE C/W 12.0m MIN. TURNING RADIUS



EXIT MANEUVER – PASSENGER PARKING – ABOVE INDUSTRIAL BUILDING DC4

FIRE ACCESS ROUTE C/W 12.0m MIN. TURNING RADIUS

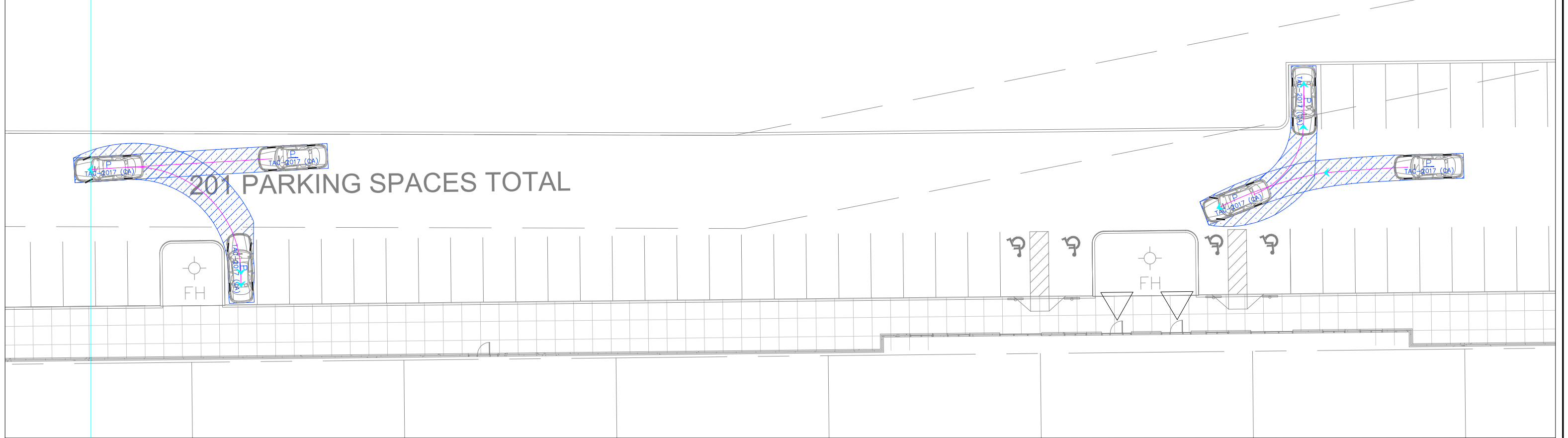


P
 Width : 2.00
 Track : 2.00
 Lock to Lock Time : 6.0
 Steering Angle : 35.9

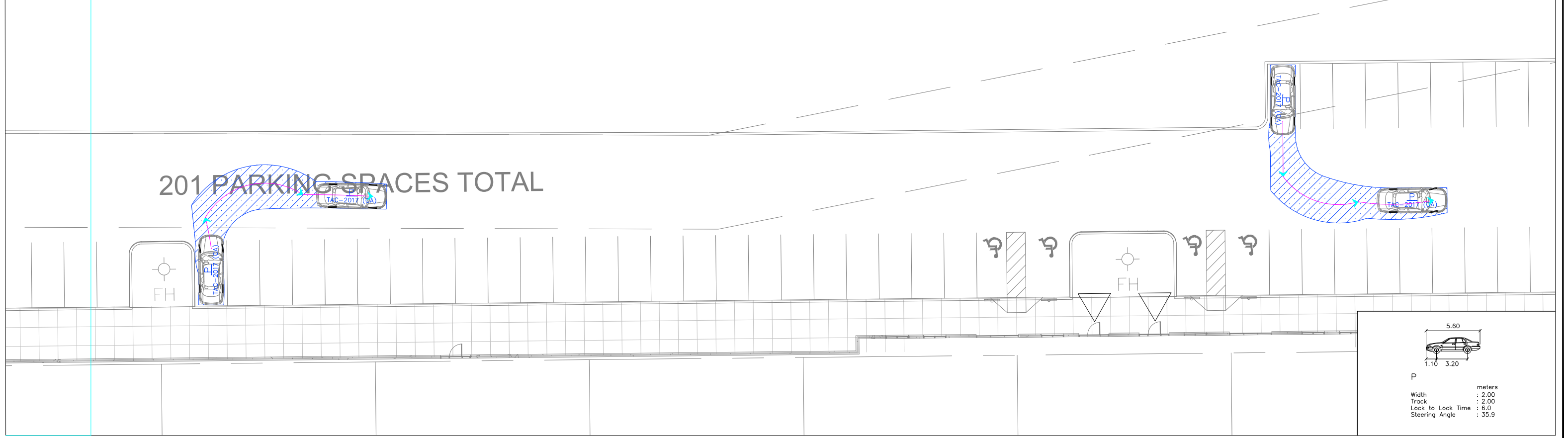
G:\Projects\2025\100658-7564_10th Line West Industrial Prologis\03 Analysis\03 Site review & Circulation\02 Vehicle Swept Path\20250730



ENTRY MANEUVER – PASSENGER PARKING – ABOVE INDUSTRIAL BUILDING DC4



EXIT MANEUVER – PASSENGER PARKING – ABOVE INDUSTRIAL BUILDING DC4



P

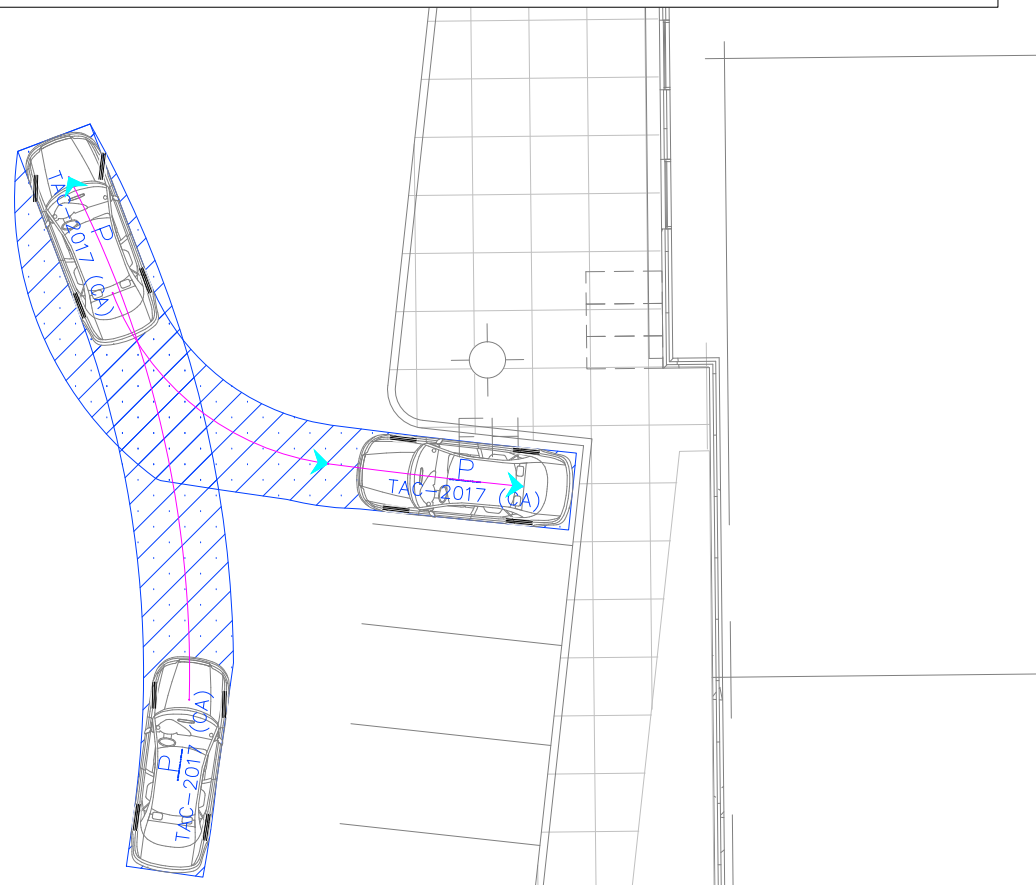
Width	: 2.00
Track	: 2.00
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

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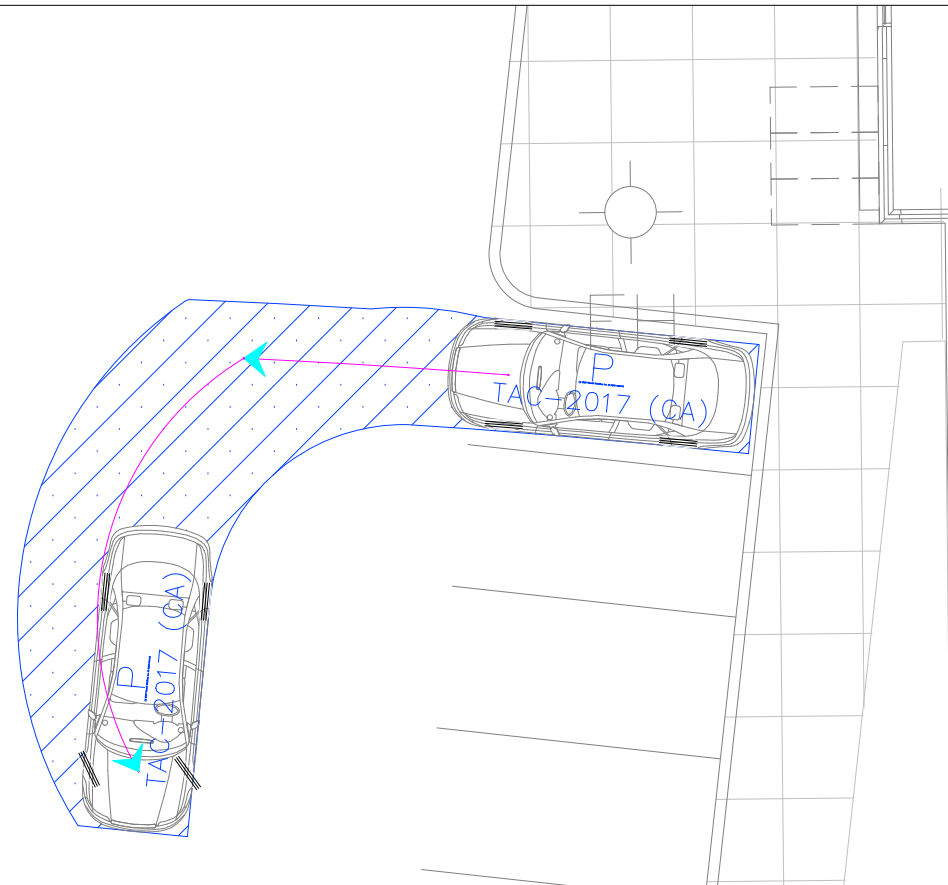


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ENTRY MANEUVER – PASSENGER PARKING – LEFT SIDE OF INDUSTRIAL BUILDING DC4



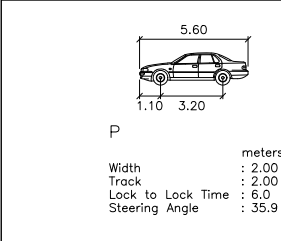
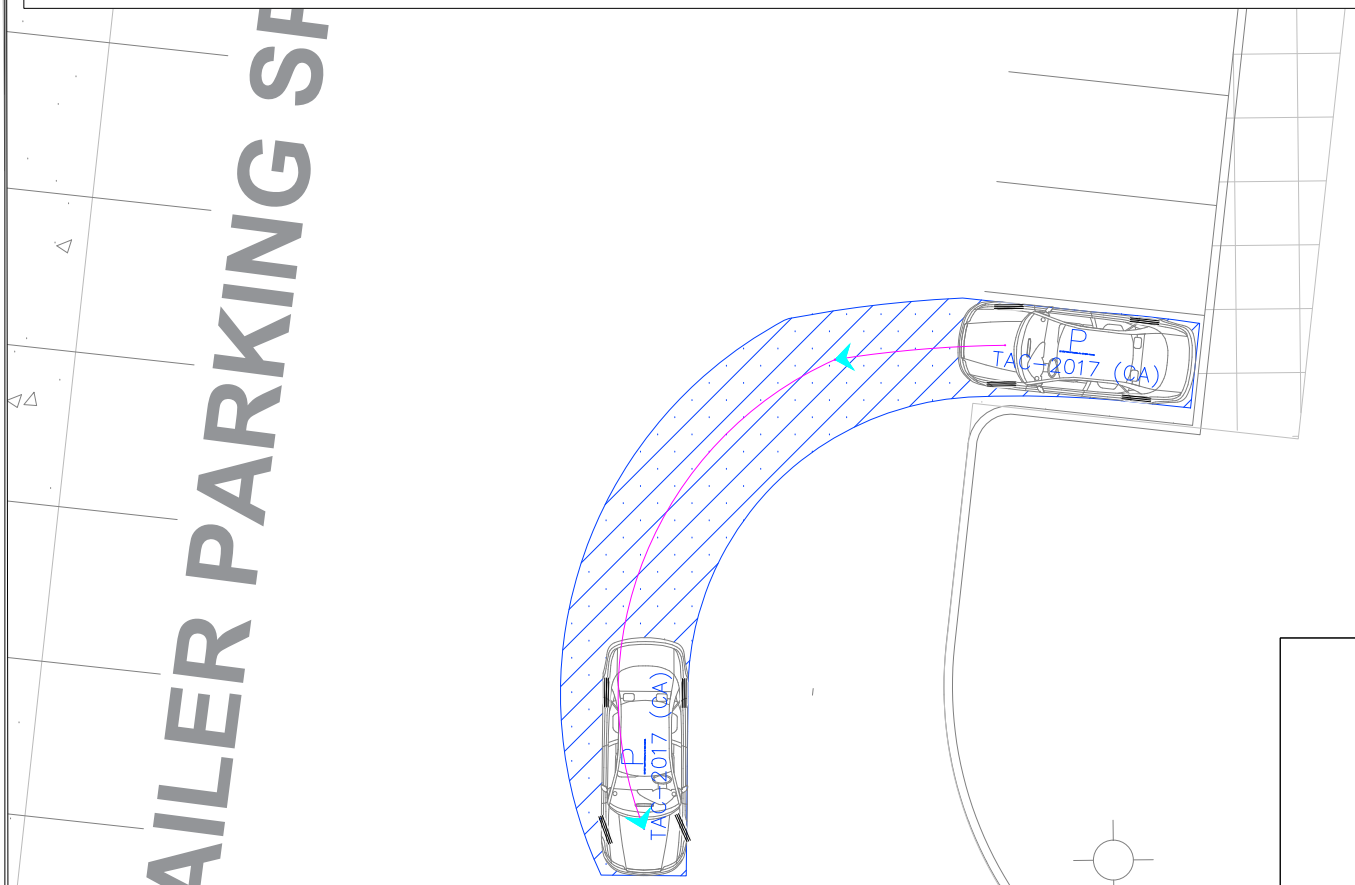
EXIT MANEUVER – PASSENGER PARKING – LEFT SIDE OF INDUSTRIAL BUILDING DC4



ENTRY MANEUVER – PASSENGER PARKING – LEFT SIDE OF INDUSTRIAL BUILDING DC4

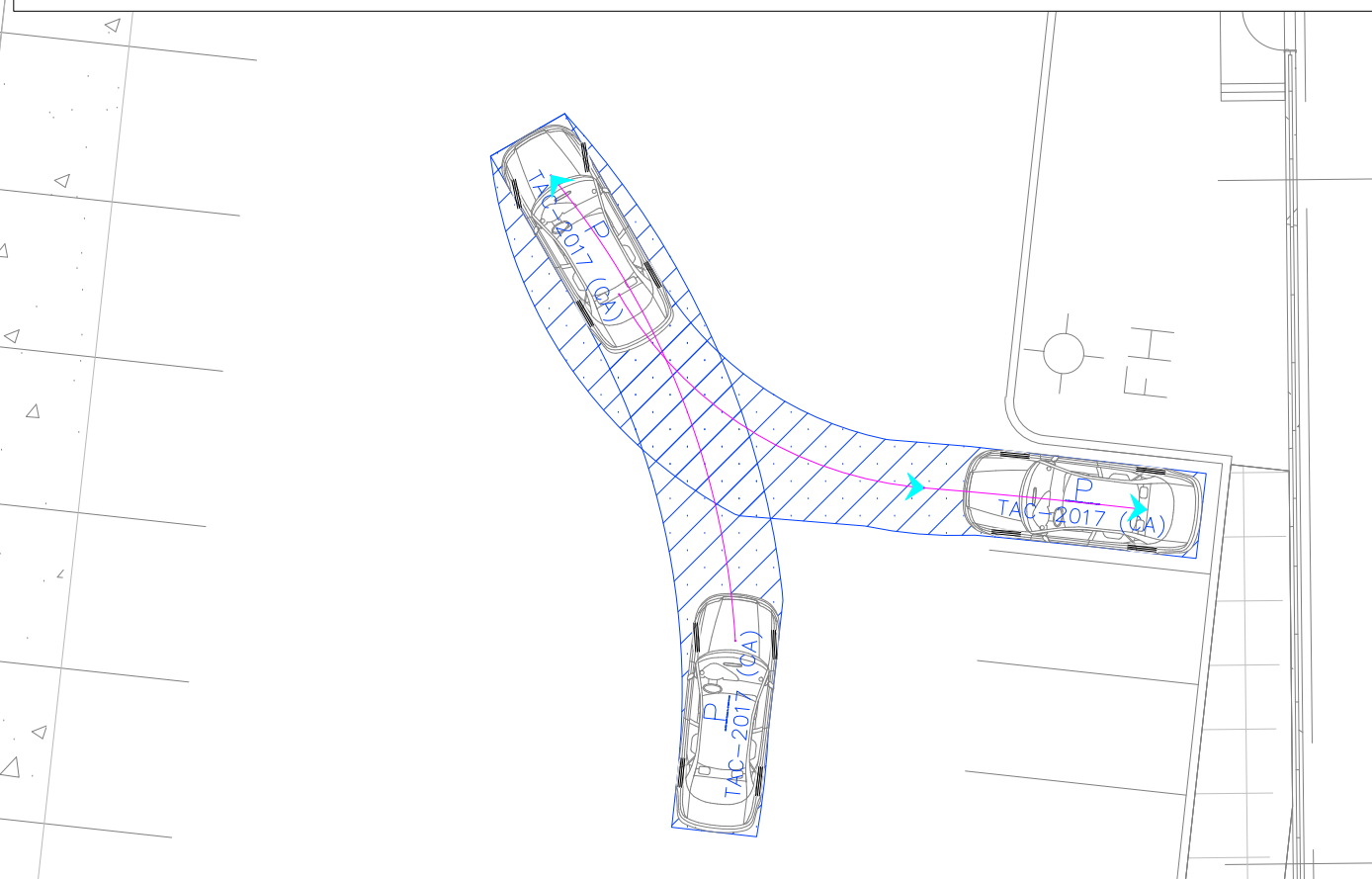


EXIT MANEUVER – PASSENGER PARKING – LEFT SIDE OF INDUSTRIAL BUILDING DC4

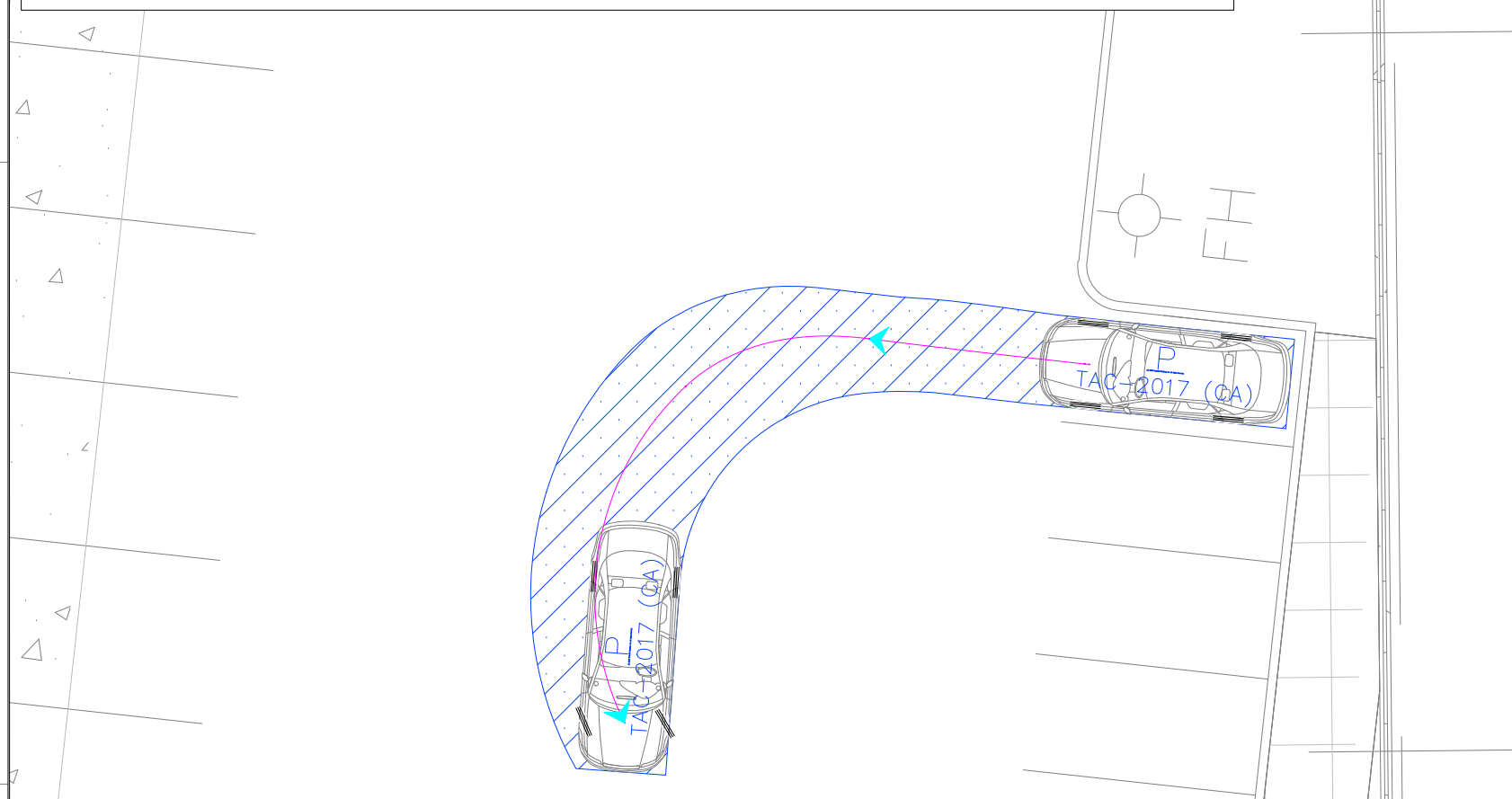


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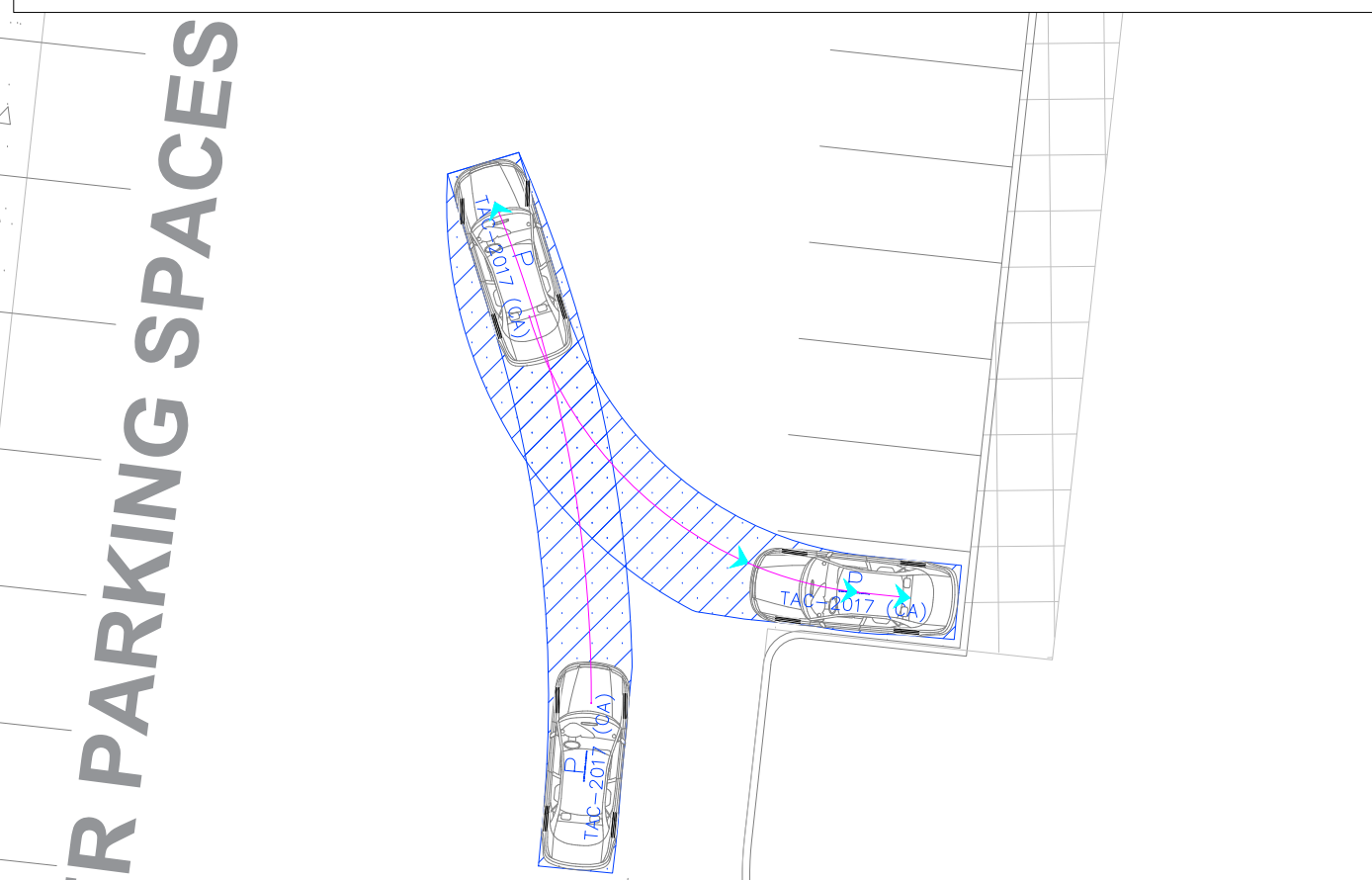
ENTRY MANEUVER – PASSENGER PARKING – LEFT SIDE OF INDUSTRIAL BUILDING DC5



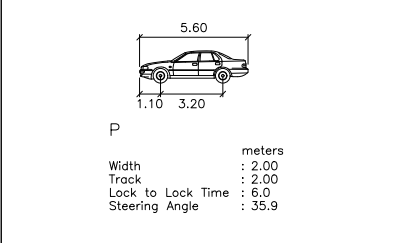
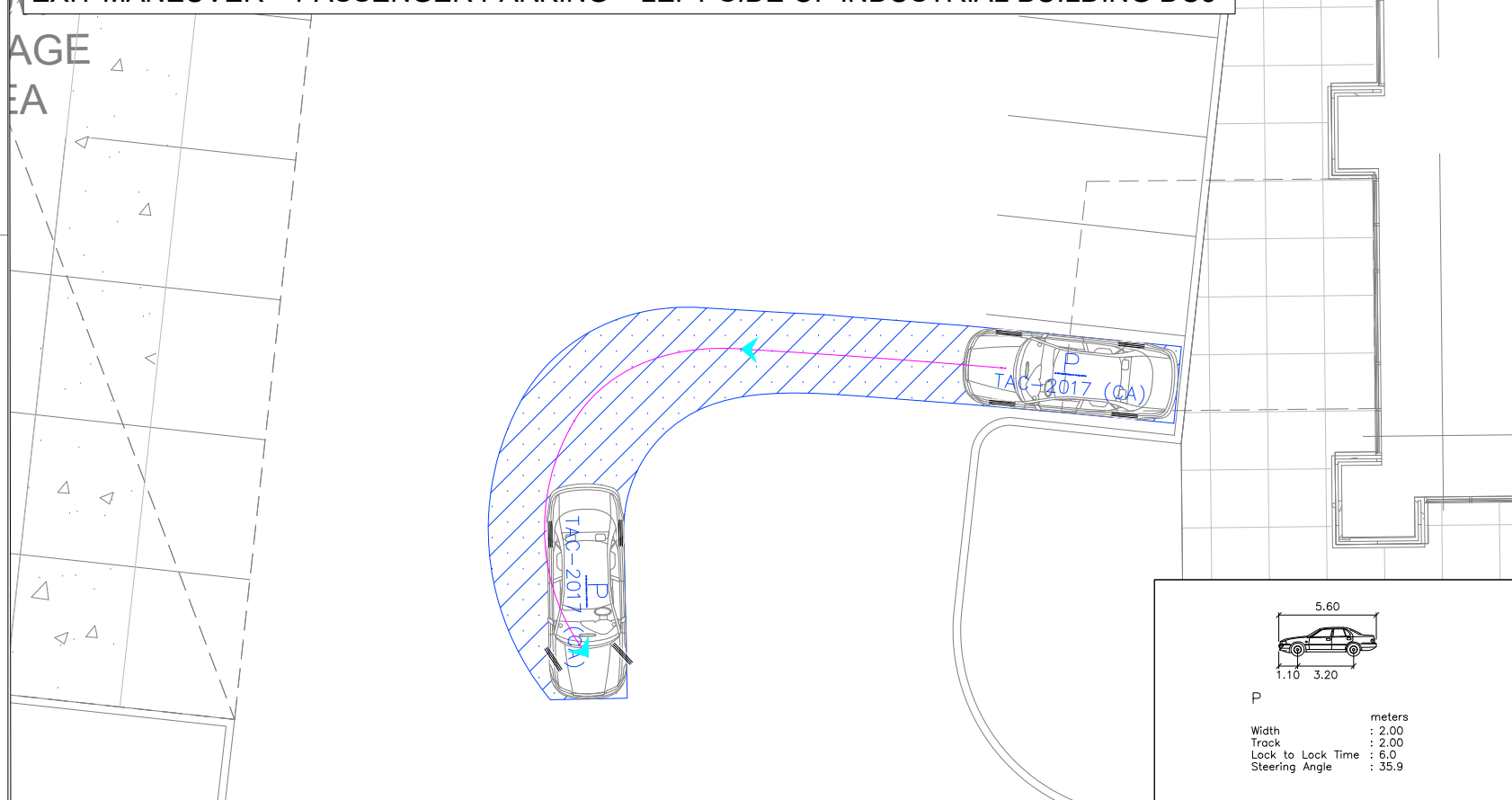
EXIT MANEUVER – PASSENGER PARKING – LEFT SIDE OF INDUSTRIAL BUILDING DC5



ENTRY MANEUVER – PASSENGER PARKING – LEFT SIDE OF INDUSTRIAL BUILDING DC5

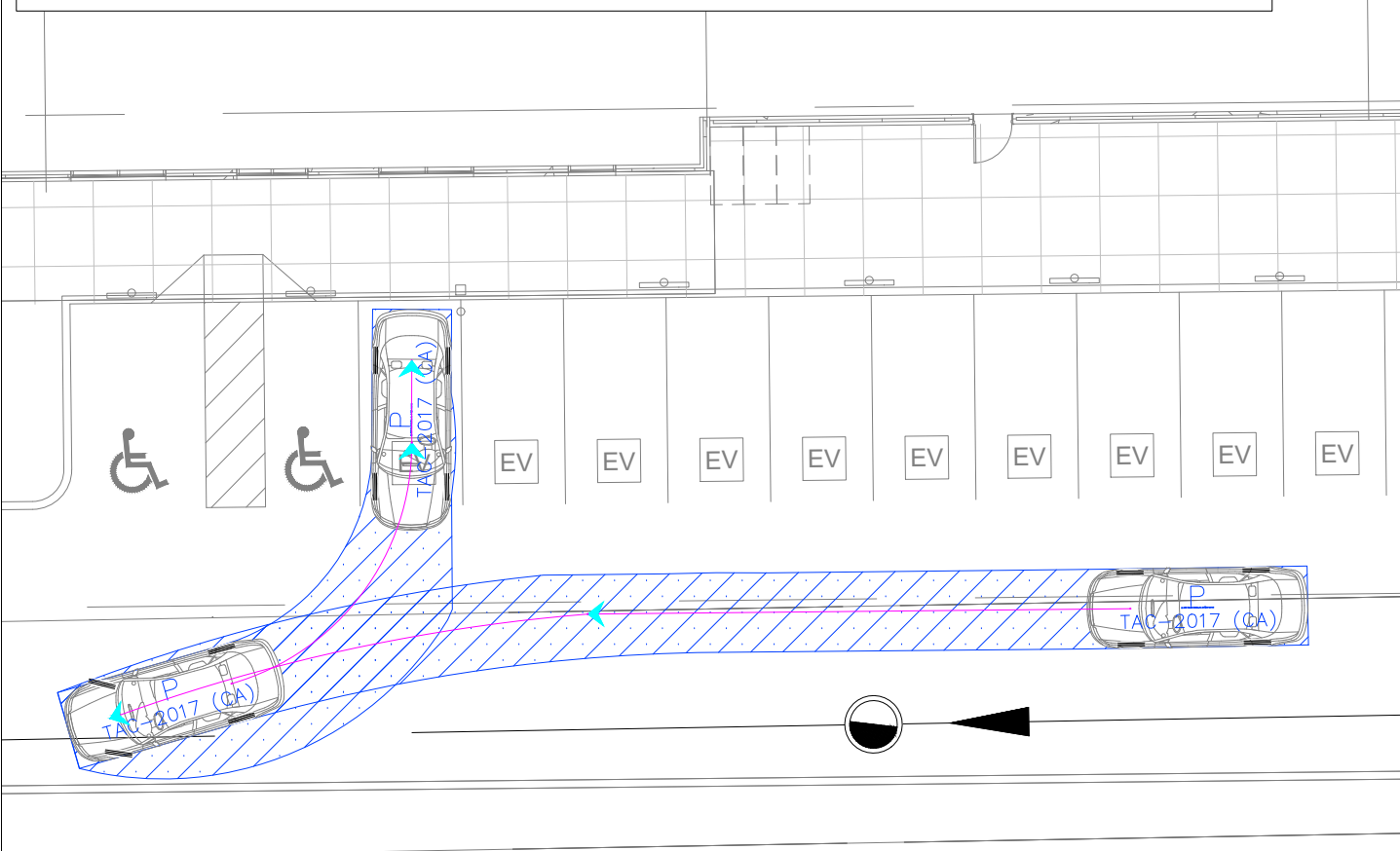


EXIT MANEUVER – PASSENGER PARKING – LEFT SIDE OF INDUSTRIAL BUILDING DC5

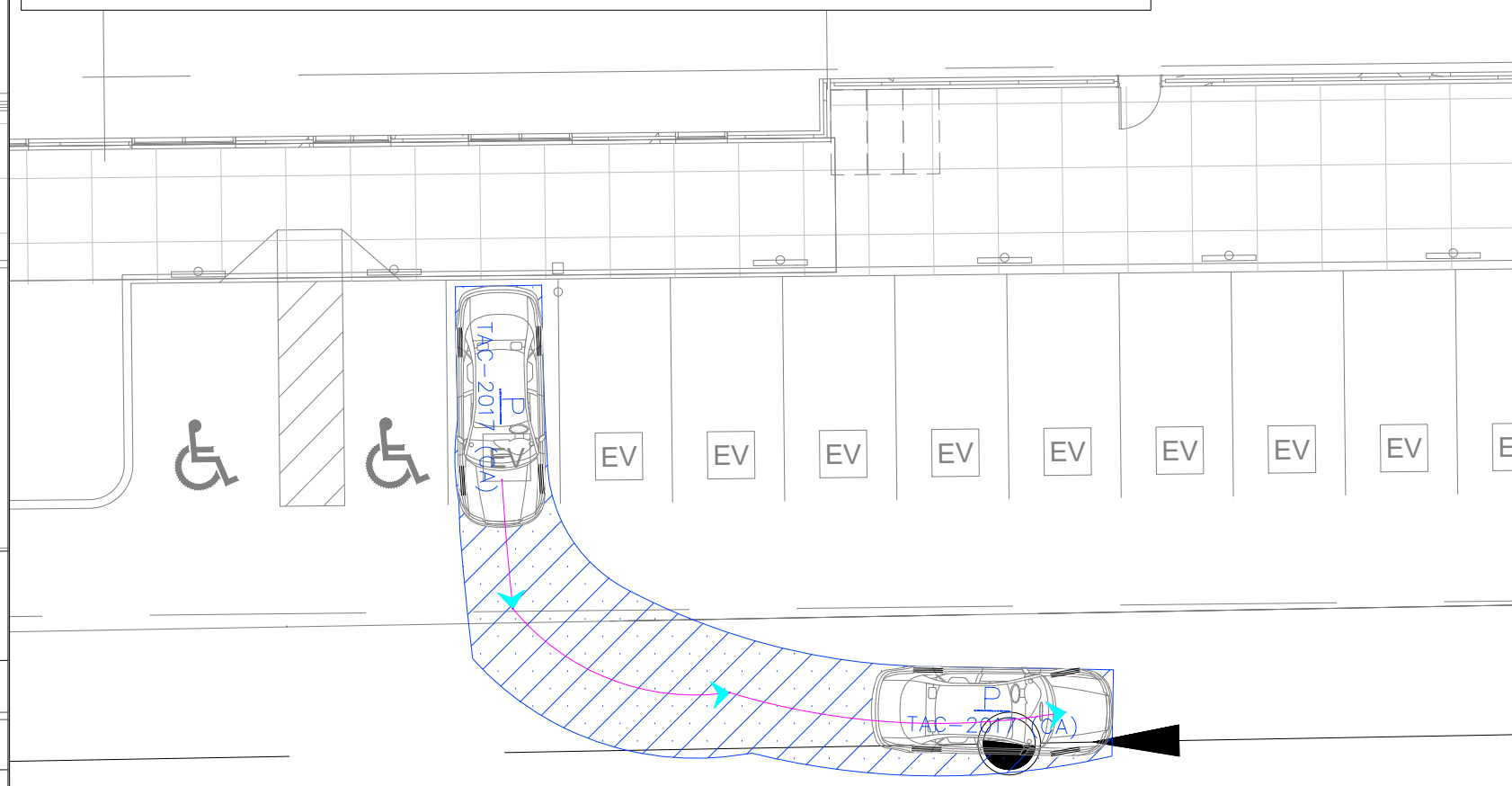


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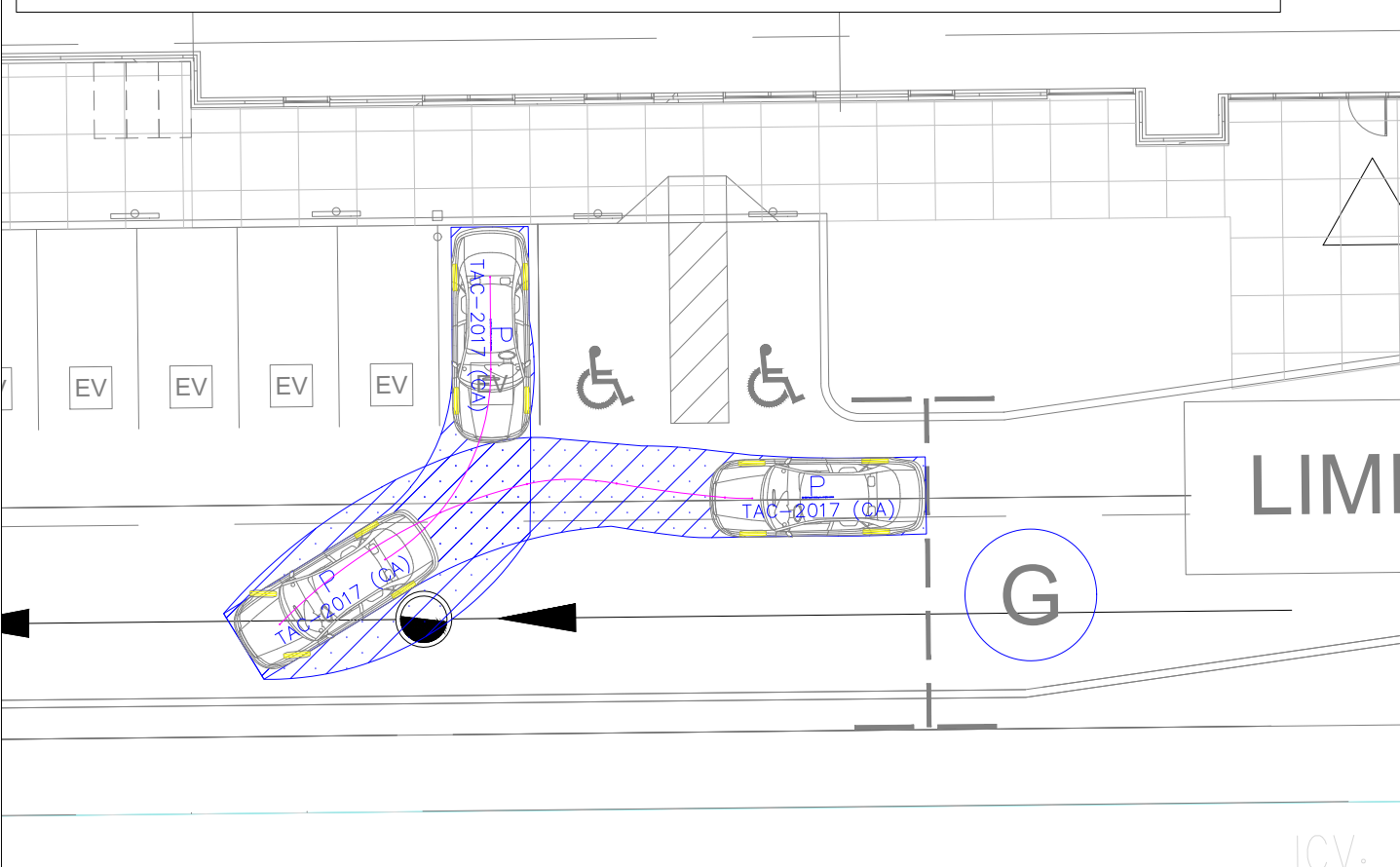
ENTRY MANEUVER – PASSENGER PARKING – BELOW INDUSTRIAL BUILDING DC5



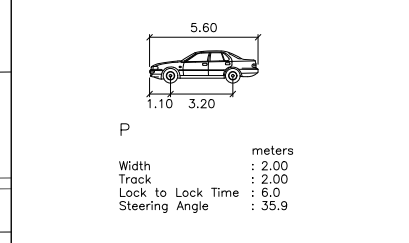
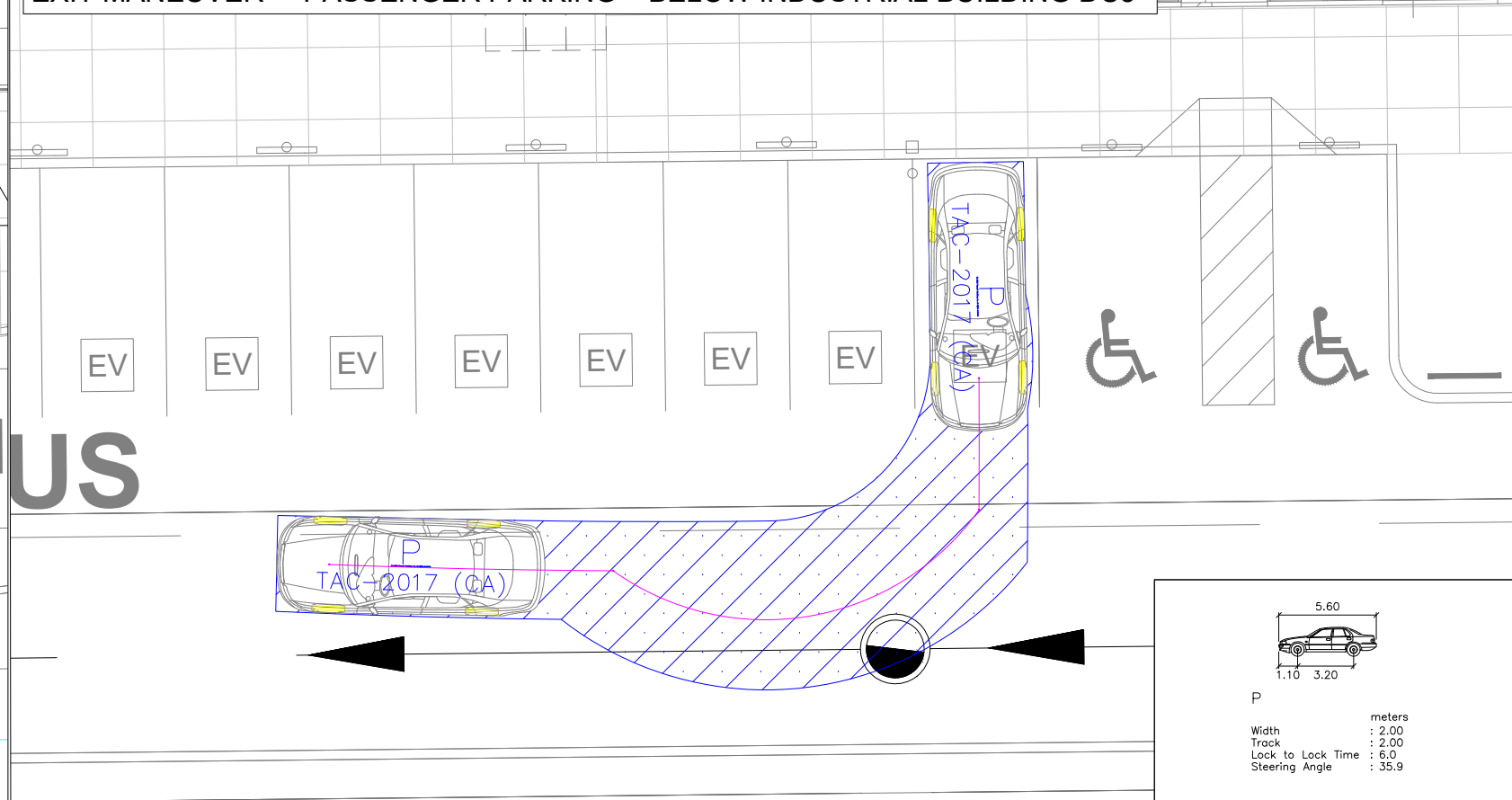
EXIT MANEUVER – PASSENGER PARKING – BELOW INDUSTRIAL BUILDING DC5



ENTRY MANEUVER – PASSENGER PARKING – BELOW INDUSTRIAL BUILDING DC5



EXIT MANEUVER – PASSENGER PARKING – BELOW INDUSTRIAL BUILDING DC5

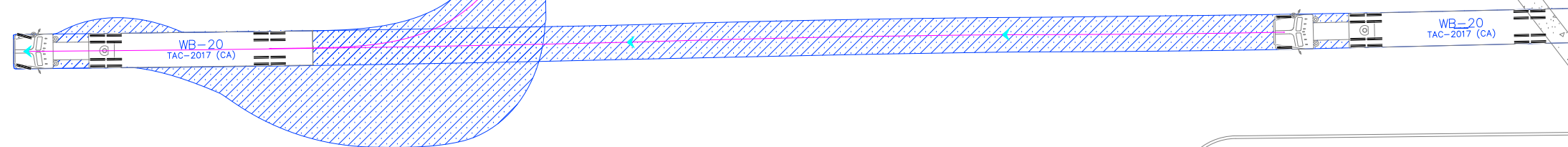


ENTRY MANEUVER – INDUSTRIAL BUILDING DC4

(±740 SF)

ELECTRICAL ROOM
±105.51 SM
(±1,135 SF)

18.29m
[60'-0"]



EXIT MANEUVER – INDUSTRIAL BUILDING DC4

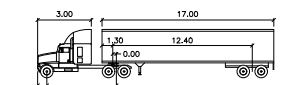
(±740 SF)

ELECTRICAL ROOM
±105.51 SM
(±1,135 SF)

18.29m
[60'-0"]



FUTURE PURSUAN APPLI



WB-20			
Tractor Width	: 2.60	Lock to Lock Time	: 6.0
Trailer Width	: 2.60	Steering Angle	: 38.2
Tractor Track	: 2.60	Articulating Angle	: 70.0
Trailer Track	: 2.60		



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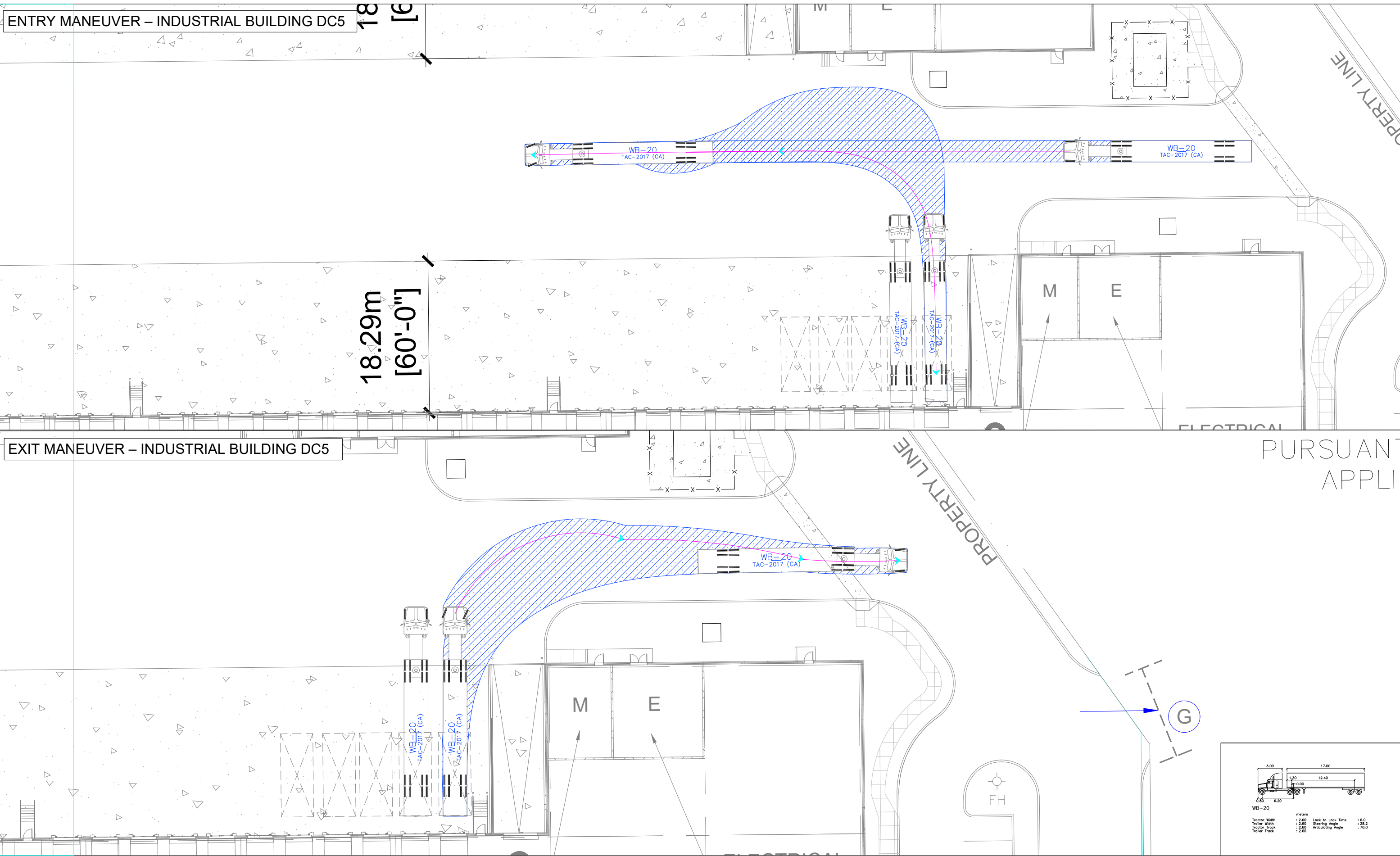
G:\Projects\2025\100658-7564_10th Line West-Industrial-Prologis\03 Analysis\03 Site review & Circulation\02 Vehicle Swept Path\20250730

ENTRY MANEUVER – INDUSTRIAL BUILDING DC5

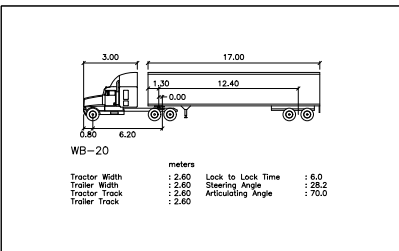
18.29m [60'-0"]

EXIT MANEUVER – INDUSTRIAL BUILDING DC5

18.29m [60'-0"]

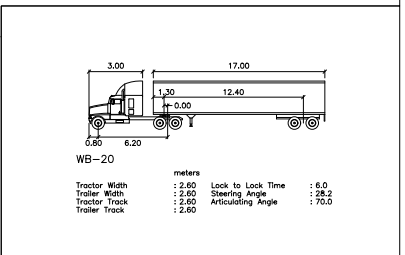
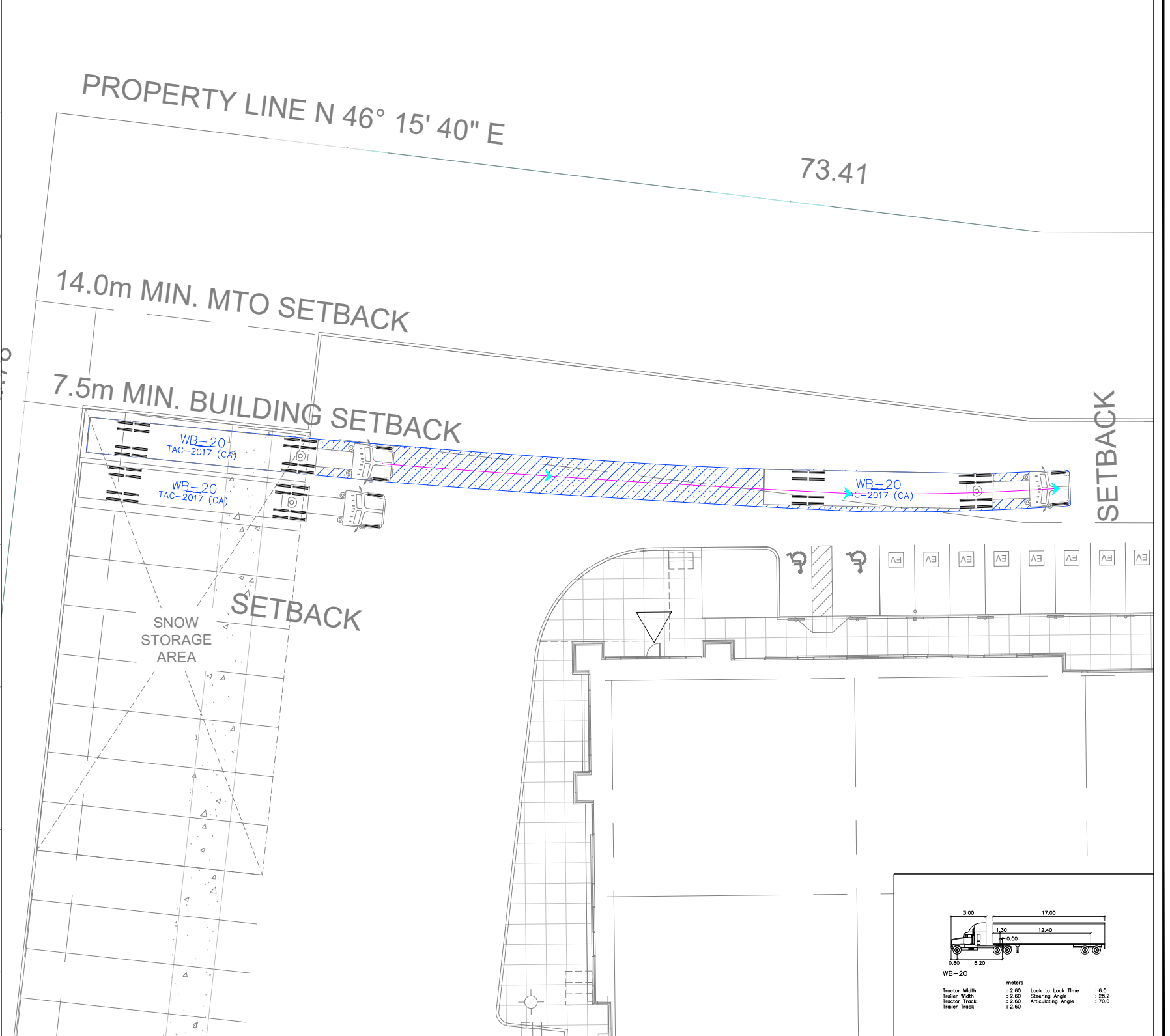


PURSUANT
APPLI



ENTRY MANEUVER – TRAILER PARKING SPACES

EXIT MANEUVER – TRAILER PARKING SPACES

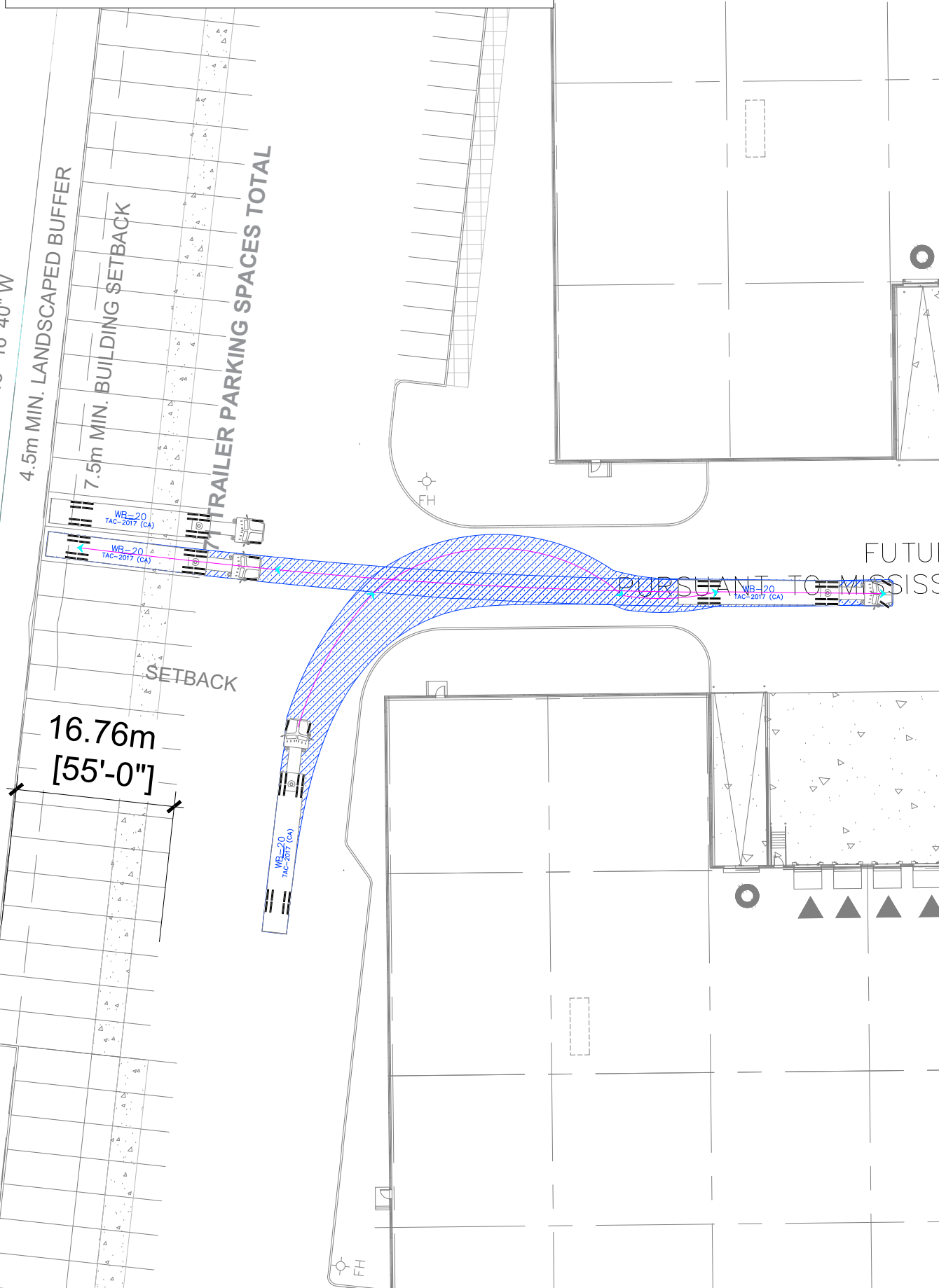


G:\Projects\2025\100658-7564_10th Line West Industrial-Prlogis\03 Analysis\03 Site review & Circulation\02 Vehicle Sweep Path\20250730

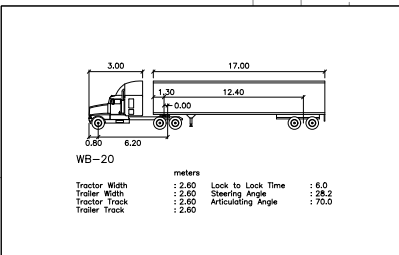
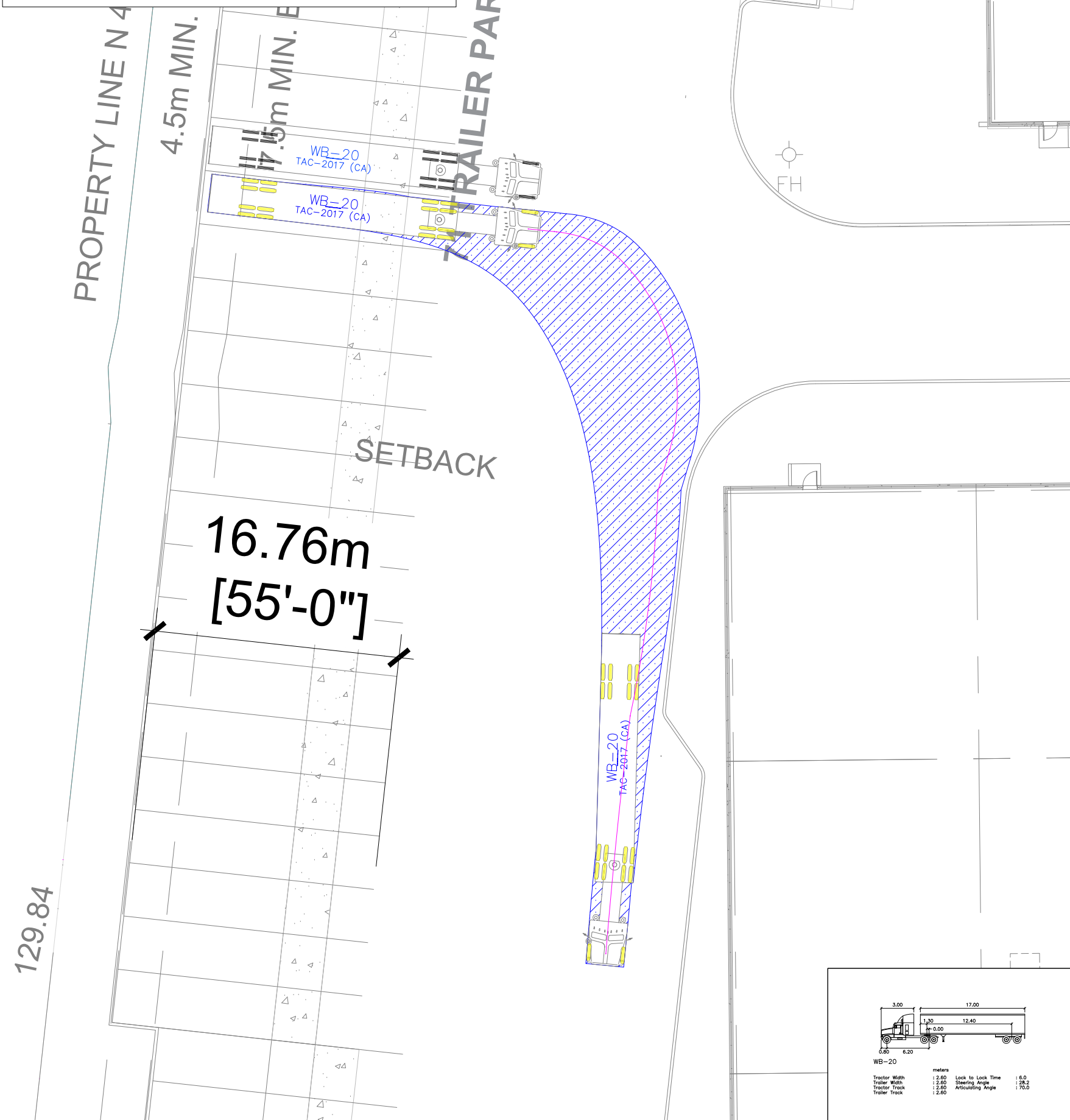


G:\Projects\2025\100658-7564_10th Line West Industrial Prologis\03 Analysis\03 Site review & Circulation\02 Vehicle Swept Path\20250730

ENTRY MANEUVER – TRAILER PARKING SPACES



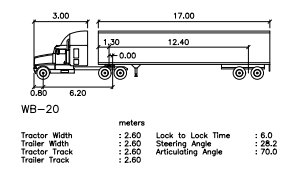
EXIT MANEUVER – TRAILER PARKING SPACES



GIS:Projects\2025\100658-7564_10th Line West-Industrial-Prologis\03_Analysis\03_Site review & Circulation\02_Vehicle Swept Path\20250730

ENTRY MANEUVER – TRAILER PARKING SPACES

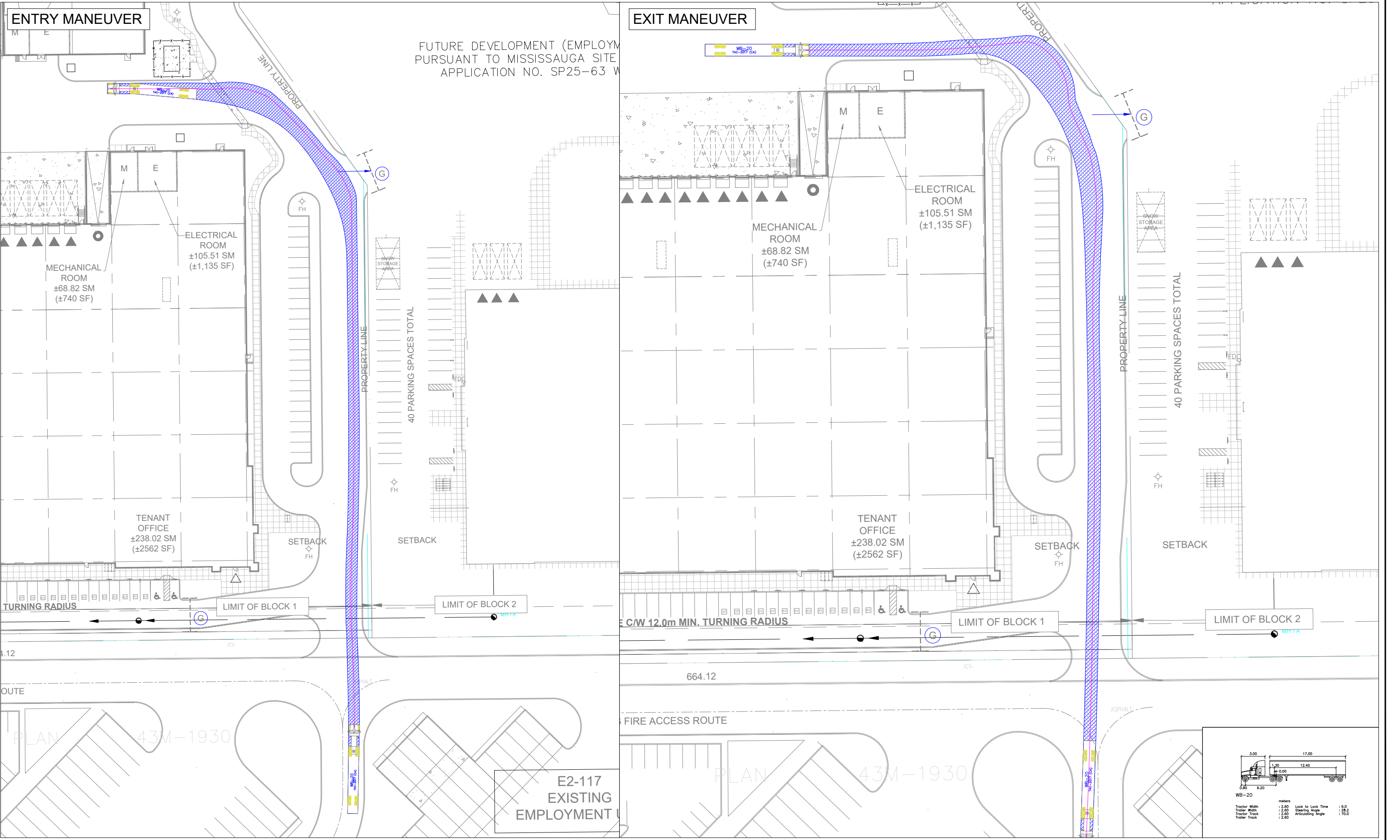
EXIT MANEUVER – TRAILER PARKING SPACES



WB-20		meters	
Tractor Width	: 3.00	Lock to Lock Time	: 6.0
Tractor Wheelbase	: 6.20	Steering Angle	: 28.2
Tractor Track	: 2.80	Articulating Angle	: 70.0
Trailer Track	: 2.80		



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FUTURE DEVELOPMENT (EMPLOYMENT)
PURSUANT TO MISSISSAUGA SITE
APPLICATION NO. SP25-63 W

EXIT MANEUVER

ENTRY MANEUVER

TURNING RADIUS

E/C/W 12.0m MIN. TURNING RADIUS

4.12

664.12

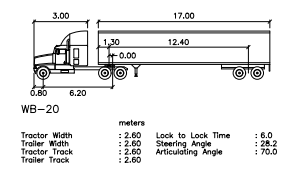
ROUTE

FIRE ACCESS ROUTE

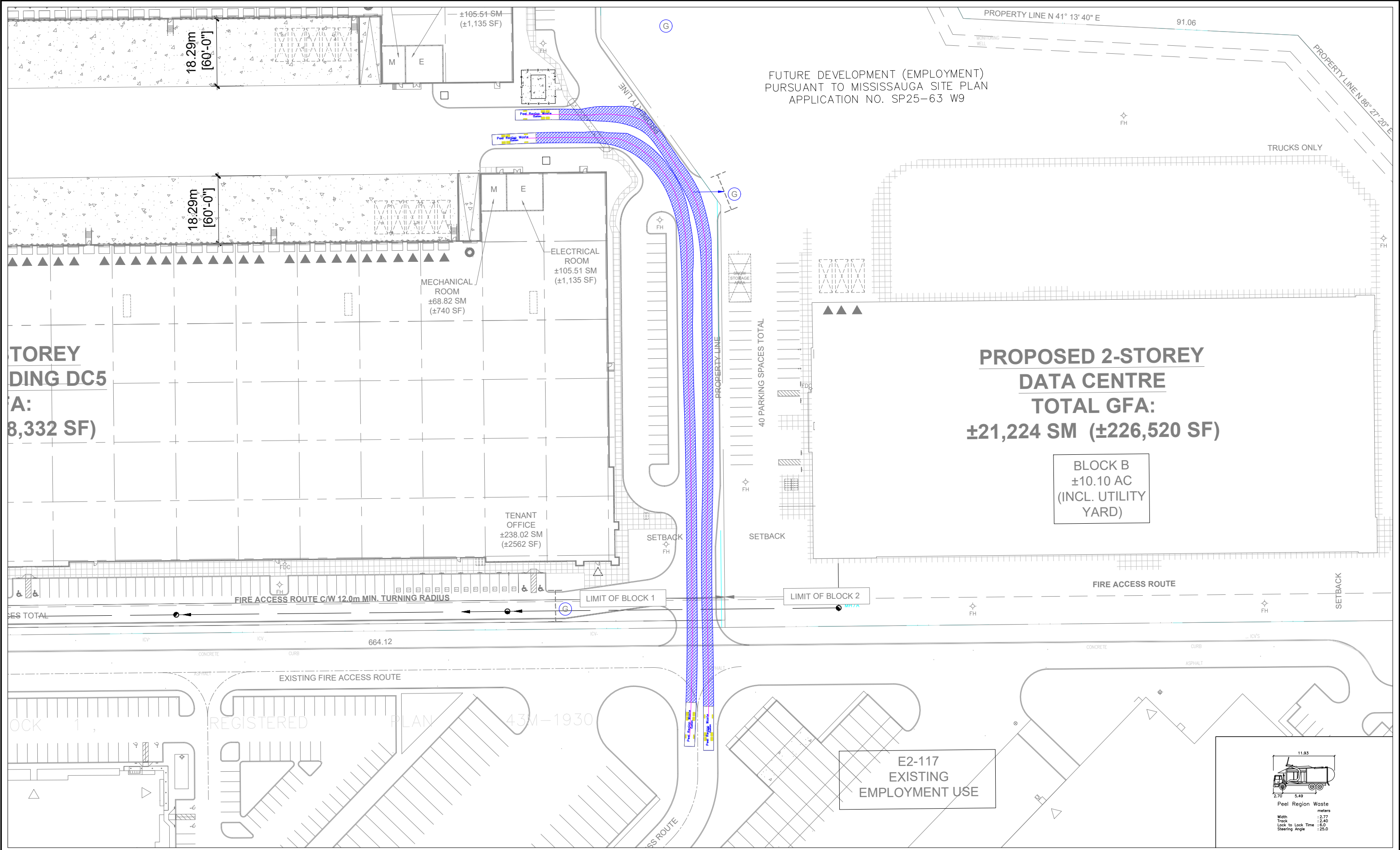
PLAN 43M-1930

PLAN 43M-1930

E2-117
EXISTING
EMPLOYMENT



G:\Projects\2025\100658-7564_10th Line West Industrial-Propogis\03 Analysis\03 Site review & Circulation\02 Vehicle Swept Path\20250730

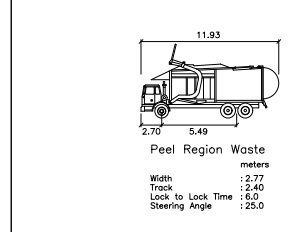


FUTURE DEVELOPMENT (EMPLOYMENT)
PURSUANT TO MISSISSAUGA SITE PLAN
APPLICATION NO. SP25-63 W9

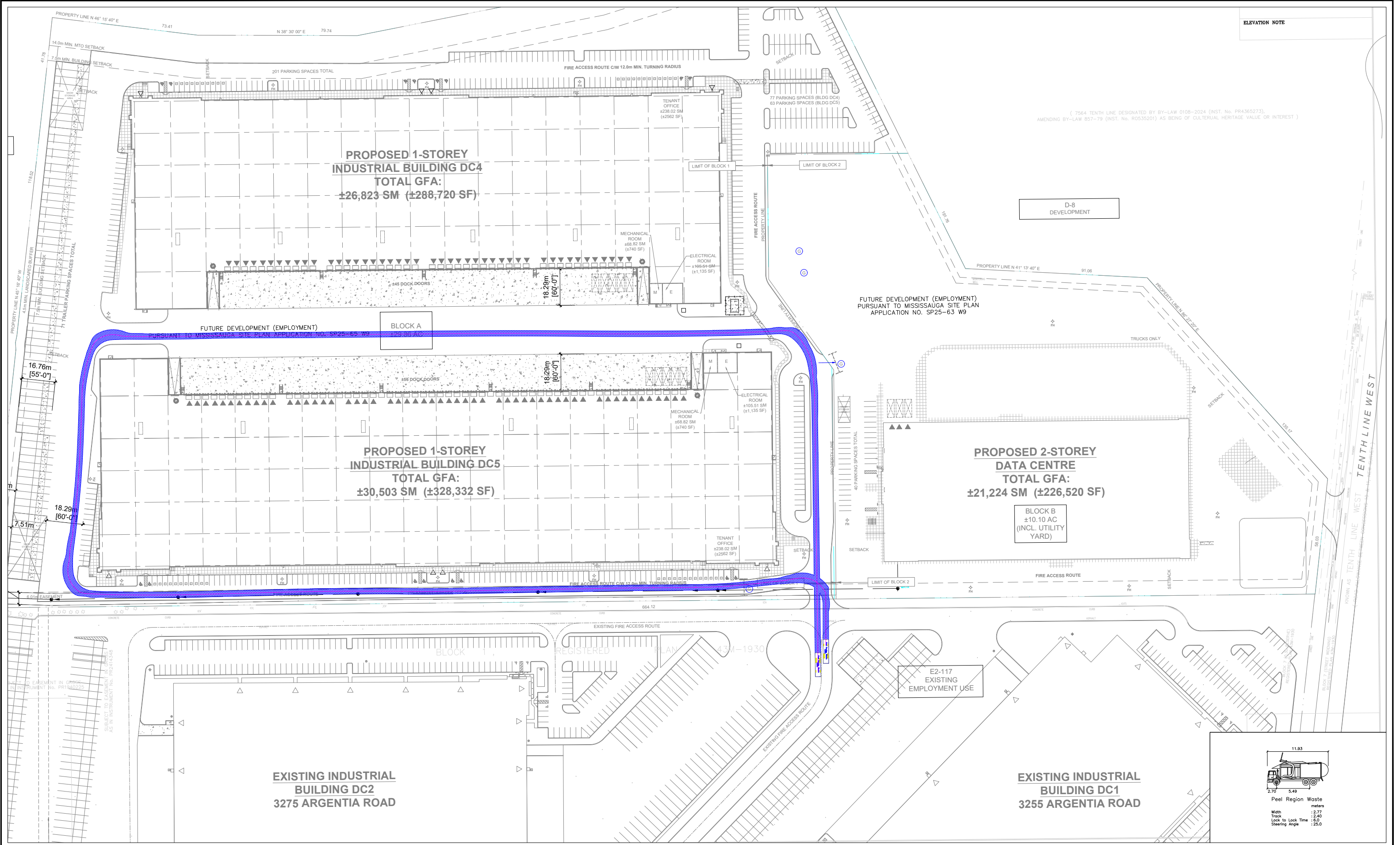
**PROPOSED 2-STOREY
DATA CENTRE
TOTAL GFA:
±21,224 SM (±226,520 SF)**

**BLOCK B
±10.10 AC
(INCL. UTILITY
YARD)**

**E2-117
EXISTING
EMPLOYMENT USE**



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ELEVATION NOTE

(7564 TENTH LINE DESIGNATED BY BY-LAW 0108-2024 (INST. No. PR4365273), AMENDING BY-LAW 857-79 (INST. No. RO535201) AS BEING OF CULTURAL HERITAGE VALUE OR INTEREST)

D-8 DEVELOPMENT

FUTURE DEVELOPMENT (EMPLOYMENT) PURSUANT TO MISSISSAUGA SITE PLAN APPLICATION NO. SP25-63 W9

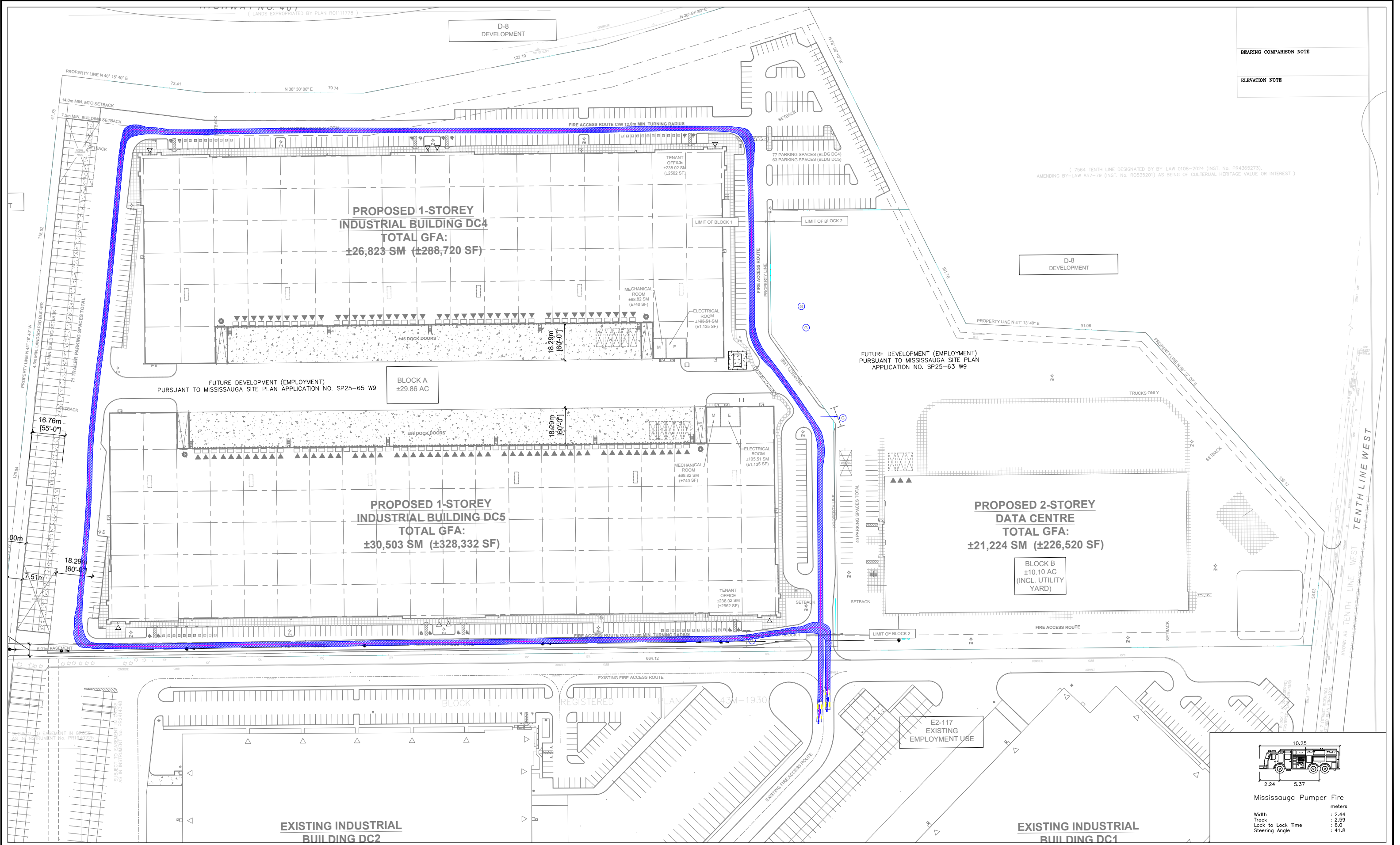
BLOCK B ±10.10 AC (INCL. UTILITY YARD)

DRAWING No. 18
DATE MAR 2026



N.T.S

G:\Projects\2025\100658-7564_10th Line West Industrial-Prorgis\03 Analysis\03 Site review & Circulation\02 Vehicle Swept Path\20250730



BEARING COMPARISON NOTE

ELEVATION NOTE

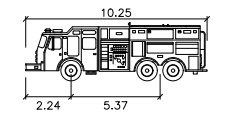
(7564 TENTH LINE DESIGNATED BY BY-LAW 0108-2024 (INST. No. PR4365273), AMENDING BY-LAW 857-79 (INST. No. R0535201) AS BEING OF CULTURAL HERITAGE VALUE OR INTEREST)

FUTURE DEVELOPMENT (EMPLOYMENT)
PURSUANT TO MISSISSAUGA SITE PLAN APPLICATION NO. SP25-63 W9

D-8 DEVELOPMENT

BLOCK A
±29.86 AC

BLOCK B
±10.10 AC
(INCL. UTILITY YARD)



Mississauga Pumper Fire

Width	: 2.44
Track	: 2.59
Lock to Lock Time	: 6.0
Steering Angle	: 41.8

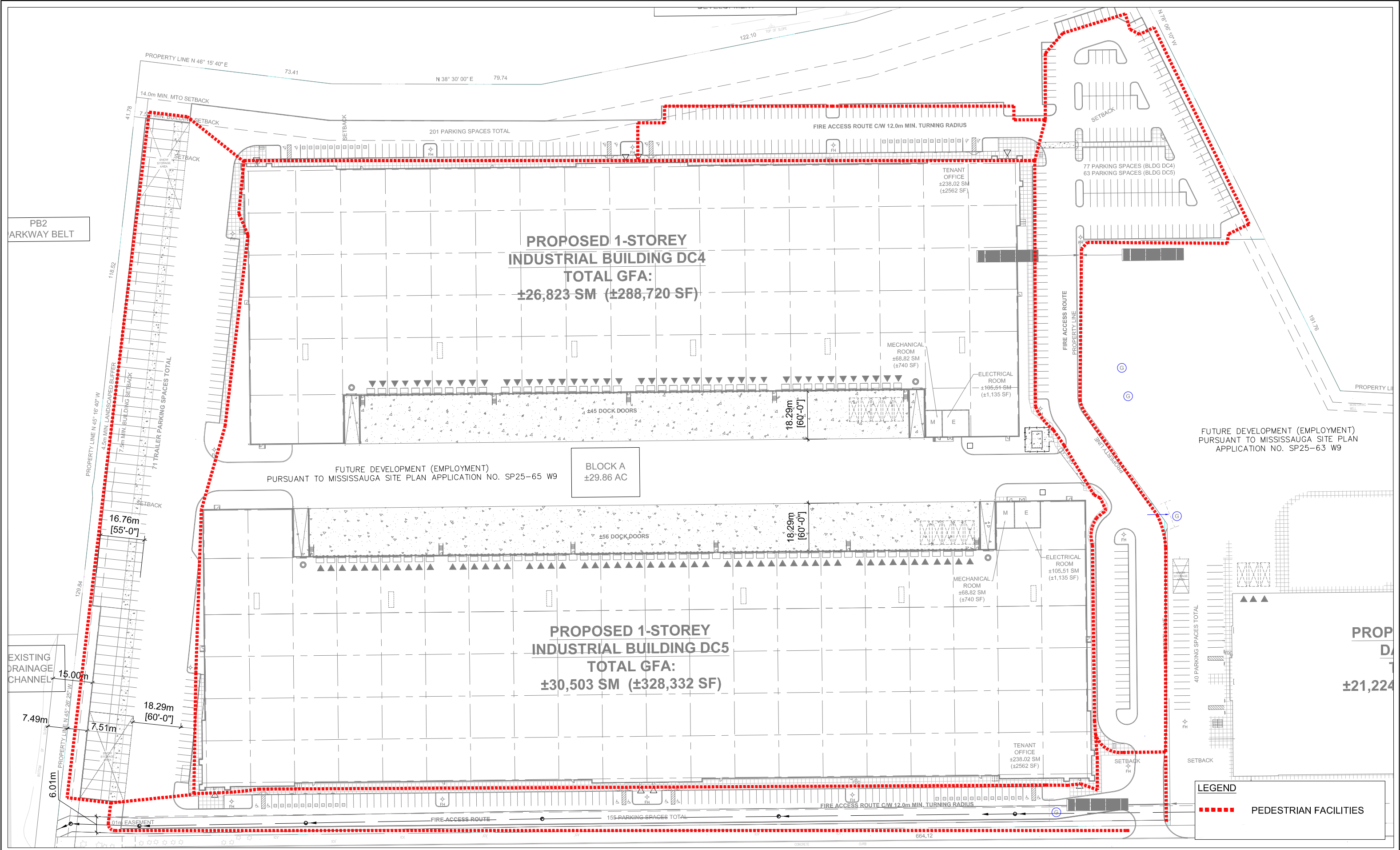


N.T.S



Appendix G: **Pedestrian Circulation Plan**

Gi:\Projects\2023\100658-7564 10th Line West\Industrial-Prologis\03 Analysis\03 Site review & Circulation\02 Vehicle Swept\Path\20250730



PB2
ARKWAY BELT

**PROPOSED 1-STOREY
INDUSTRIAL BUILDING DC4**
TOTAL GFA:
±26,823 SM (±288,720 SF)

FUTURE DEVELOPMENT (EMPLOYMENT)
PURSUANT TO MISSISSAUGA SITE PLAN APPLICATION NO. SP25-65 W9

BLOCK A
±29.86 AC

**PROPOSED 1-STOREY
INDUSTRIAL BUILDING DC5**
TOTAL GFA:
±30,503 SM (±328,332 SF)

FUTURE DEVELOPMENT (EMPLOYMENT)
PURSUANT TO MISSISSAUGA SITE PLAN
APPLICATION NO. SP25-63 W9

PROP
D
±21,224

LEGEND
■■■■■ PEDESTRIAN FACILITIES

